INNOVATIVE | EXPERIENCED | RESPONSIVE

PRELIMINARY ASSESSMENT / SITE INVESTIGATION REPORT

50 Division Avenue
Millington (Long Hill Township),
Morris County, New Jersey 07946
NJDEP SRP PI #: 024069

Submitted to:
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c/o Prism Millington, LLC
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Submitted by:
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Project # 208322

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Table of Contents

Tables

Figures

Appendices

Executive Summary

EWMA was retained by Prism Millington, LLC to conduct a Preliminary Assessment / Site Investigation (PA/SI) Report concerning the Property located at 50 Division Avenue, Millington, Township of Long Hill, New Jersey (the "Property").

The PA identified the following twenty-two (22) potential Areas of Concern (AOCs) at the Property:

AOC #	AOC Description
AOC-1	Asbestos Landfill (Possible Pockets of Asbestos Fill throughout Property)
AOC-2	Former Fuel Oil USTs
AOC-3	Former Garage and Tank Area between Buildings 3 and 4
AOC-4	Former Above Ground Storage Tanks between Buildings 3 and 4
AOC-5	Former Gas Pump and Suspected UST
AOC-6	Former Tanks in Area of Building 2
AOC-7	Former Oil Pit Area
AOC-8	Discharge Area of Former Sluiceway
AOC-9	Transformer House
AOC-10	Former Production Well
AOC-11	Former Septic System
AOC-12	Former Rail Line and Equipment Testing Area
AOC-13	Former Residential Structures/Dwellings
AOC-14	Steel Floor Plate
AOC-15	Drums
AOC-16	Floor Drains
AOC-17	Hazardous Material Storage Area
AOC-18	Compressor Vent Discharge
AOC-19	Former Elevator
AOC-20	Concrete
AOC-21	Historic Fill
AOC-22	Dumpsters

Nine of the aforementioned AOCs identified in the PA did not warrant further investigation. Thirteen AOCs (AOCs 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 13, 20 and 21) indicated potential contamination and thus warranted investigation. They have been tabulated as follows:

AOC #	AOC Description
AOC-1	Asbestos Landfill (Possible Pockets of Asbestos Fill throughout Property)
AOC-2	Former Fuel Oil USTs
AOC-3	Former Garage and Tank Area between Buildings 3 and 4
AOC-4	Former Above Ground Storage Tanks between Buildings 3 and 4
AOC-5	Former Gas Pump and Suspected UST
AOC-6	Former Tanks in Area of Building 2
AOC-7	Former Oil Pit Area
AOC-8	Discharge Area of Former Sluiceway
AOC-9	Transformer House
AOC-12	Former Rail Line and Equipment Testing Area
AOC-13	Former Residential Structures/Dwellings
AOC-20	Concrete
AOC-21	Historic Fill

The site investigation was conducted on upland areas of the site around the existing buildings and parking lots and focused on the 13 AOCs described above. It excluded the fenced and restricted asbestos landfill area addressed under Superfund. A site investigation summary, description of site background information, details of the investigation activities and findings, and recommendations are presented below. Based on the results of the site investigation, seven AOCs remain on-site that require further investigation.

This combined PA/SI Report has been prepared in accordance with the New Jersey Department of Environmental Protection (NJDEP) Technical Guidance documents and Technical Requirements for Site Remediation (TRSR). An Authorization to Submit a Remedial Phase Report through NJDEP Online, Case Inventory Document (CID) Worksheet, Cover/Certification Form, and a Receptor Evaluation Form are included as **Appendix 1**. The Site location is illustrated on **Figure 1**, and the identified AOCs are illustrated on **Figure 2**. Photographs from the site visit performed by EWMA on February 28, 2019 are included as **Appendix 2**.

1. General Information

The approximately 12 acre Property located at 50 Division Avenue is a delisted National Priorities List (NPL or Superfund) site due to a closed asbestos landfill on portions of the site. The Site has historically operated as an asbestos products manufacturer and a pesticide application equipment manufacturer and pesticide packaging distribution facility and currently is a multi-tenant industrial/business park. Tifa Realty, Inc. (TIFA), the current Property owner, submitted a Preliminary Assessment for the former Tifa Limited leasehold (Building 1, Suites 28, 29 and 40) in September 2014 and was issued an Unrestricted Use Response Action Outcome (RAO) on September 3, 2014. This RAO was later amended on January 16, 2015 and February 4, 2015

This report discusses the investigation of suspected areas of concern (AOCs) at the site identified in the preliminary assessment, and provides recommendations if further action is necessary in compliance with the Technical Requirements for Site Remediation (TRSR), N.J.A.C. 7:26E and applicable guidance documents.

1.2 Location and Legal Description

Item	Details
Current Property Owner	Tifa Realty Inc. % CBRE
Property Street Address	50 Division Avenue, Millington (Long Hill), NJ 07946 (**Figure 1** and **Figure 2**)
Block and Lot	Block: 12301 / Lot:1 (**Figure 3**)
City	Long Hill
County	Morris
State	New Jersey
Acreage of Land	11.9 Acres
Building Square Footage	Approximately 146,783 square feet
Year Built	Buildings 1, 2 and 3 were constructed sometime in the 1920s and Building 4 was constructed sometime in the late 1950s early 1960s
Current Tenants	See Section 3.1
Property Zoning Information	The Property is zoned for industrial purposes with class 4B designation

1.2 Physical Conditions of Site and Surroundings

The Property is located at 50 Division Avenue, Millington, in the Township of Long Hill, New Jersey. According to the, Zoning Officer in the Township of Long Zoning Department, the Property is zoned "LI-2" which corresponds to "Light Industrial Use".

The Property is located in a mixed-use suburban area that is characterized by light industrial businesses and single-family residences. Property improvements include buildings, asphalt-paved parking/drive areas, and grass-landscaped areas. Access to the eastern portion of the Property is from Division Avenue and access to the southern portion of the Property is from Stone House Road. Landscaped areas are located on the eastern portion of the Property between the building and Division Avenue. The western portion of the Property contains a 4.5 acre fenced in area which was land filled with asbestos containing materials. The landfill is capped and covered by soil and vegetation as an engineering control.

The *Property* contains four 1 and 2-story, concrete block and steel framed buildings surrounded by asphalt-paved parking areas and loading and unloading areas. The buildings are identified as Building 1, 2, 3, & 4 and are constructed with a slab-on-grade foundation and do not contain basements. The United Water Company provides potable water to the site. Wastewater discharged from the building is accommodated by the public treatment works. The topography in the area of the *Property* generally slopes gently toward the southwest and storm water runoff collected at the *Property* and surrounding area is discharged to catch basins connecting to the Township of Long Hill municipal storm water system. A portion of the storm water collected from the building's roof drains discharge to a concrete underground piping system which discharge across the Property in an east to west direction (under Building 2) to the Passaic River. Jersey Central Power and Light (JCP&L) provides electricity to the Property and Public Service Electric and Gas (PSE&G) Company provides natural gas to the Property. According to Mr. Al Gallo of the Long Hill Township Department of Public Works Department the site is further serviced by public water and sewer. Photographs of the Property are included in **Appendix 2.**

The buildings are equipped with roof-mounted natural gas fired heating, ventilation and air conditioning (HVAC) units to provide heat and cool, dehumidified air to the building office areas. In addition, ceiling mounted natural gas fired heating units are in the warehouse portion of the buildings. These systems are powered by electricity and natural gas.

The remaining portions of the Property are covered with the associated paved parking areas, lawn areas, and landscaping. Vehicular access to the subject Property is gained via Division Avenue along the eastern side of the Property and Stone House Road along the southern side of the Property. The gross area of the subject buildings is approximately 190,000 square feet.

Currently, adjoining properties are generally used for commercial and residential purposes. The following adjoining Property uses were noted at the time of EWMA's site visit:

Adjoining Properties	Name	Address	Operations
North	Lot 1 Parking Lot	47 Old Mill Road, Warren, NJ 07059	Commercial
South	JP Certified Office	84 Division Ave, Millington, NJ 07946	Commercial
East	Long Hill Chamber of Commerce & Fromartharie Inc.	59 Division Ave, & 85 Division Ave, Millington, NJ 07946	Commercial
West	Redacted	1 Pond Hill Road & 11 Pond Hill Road, 21 Pond Hill Road, Basking Ridge, NJ 07920	Residential

2. Physical Setting

Item	Details
USGS Quadrangle Map Used	Bernardsville, NJ
Site Elevation (MSL)	Approximately 243 Feet
General Topography	Generally South
Site Geology	Towaco Formation
Soil Unit	Urban land-Penn complex, 0 to 8 percent slopes (USPENB) & Penn channery silt loam, 8 to 15 percent slopes (PeoC)
Principal Aquifer	Brunswick aquifer
Estimated Direction of Groundwater Flow	West-Southwest
Estimated Depth to Groundwater	Approximately 8 to 9 feet below grade surface (bgs)
Closest Water Bodies (Feet from Site and Direction)	The Passaic River is located along the western portion of the Property
Historic Fill Map	Based on information obtained from the NJDEP Geo-Web, the Property is partially mapped within a historic fill area

A United States Geological Survey (USGS) Site Location Map and a Site Plan are included as **Figures 1** and **2** respectively.

2.1 Geology and Soil

According to the Rutgers University Engineering Soil Survey of New Jersey for Morris County, the subject site is located within the Appalachian highlands and underlain by Precambrian gneissic bedrock. Bedrock geology in the vicinity of the subject site consists of the Glacial Till Formation with limestone, sandstone and shale bedrock. The survey shows that the site is underlain by Penn Series, which is moderately deep, gently sloping to steep, well-drained shaly silt. The Penn ranges in dark brown shaly silt loam to reddish brown very shaly silt. According to the survey, the depth to bedrock varies considerably and should be considered on a site by site basis. Permeability of this series is slow or moderate.

A soil boring investigation performed in September 2013 encountered subsurface characteristics somewhat consistent with the survey. The majority of the site outside the restricted landfill area is covered by asphalt pavement or buildings. This developed

area of the site is underlain by a layer of granular soil fill materials to depths ranging up to approximately five feet below ground surface (bgs). The fill included pieces of concrete and apparent pieces of discarded, suspect asbestos products (shingles, corrugated panels). The fill is underlain by reddish brown sandy silt and clay with little gravel extending to the top of bedrock which is reported to be red brown shale of the Towaco formation.

2.2 Hydrogeology

According to the engineering soil survey, old glacial deposits soils generally have deep to moderately deep, well drained to somewhat poorly drained nearly level to steep shaly silt loam soils. The survey also indicates that depths to water table are correlative with location. Soil boring activity in September 2013 encountered groundwater ranging from 8 to 9 feet bgs at the north of the Building 1- oil pits (AOC-7). Other borings and well points installed on-site did not encounter groundwater in the overburden. The groundwater at the oil pit area likely is within a localized perched water zone in the overburden. A thin groundwater-bearing zone at the base of the overburden/fill layers is reported in the landfilled area. Based on the topography of the site and the surrounding area, groundwater beneath the site is expected to flow in a west-southwesterly direction towards the Passaic River.

2.3 Topography

According to the United States Geological Survey (USGS), 7.5-minute Topographic Map of the Bernardsville, New Jersey quadrangle (2014), the site is located approximately 243 feet above Mean Sea Level (MSL). The map shows that the region slopes slightly from east to west, towards the Passaic River. The portion of the quadrangle depicting the Property is included as **Figure 1**. Review of the USGS 7.5 Minute Topographic Map did not reveal AOCs in connection with the Property.

2.4 Surface Water Bodies

The USGS topographic map and NJ-GeoWeb shows the Passaic River is located only the western Property boundary. According to the New Jersey Surface Water Quality Standards (SWQS), N.J.A.C. 7:9-4, the water of the Passaic River is classified as General Fresh Water (C2) which is not category 1, Non-Trout (FW2-NT), with the following designated uses:

1. Maintenance, migration and propagation of the natural and established biota;

2. Primary contact recreation;
3. Industrial and agricultural water supply;
4. Public potable water supply after conventional filtration treatment (a series of processes including filtration, flocculation, coagulation, and sedimentation, resulting in substantial particulate removal but no consistent removal of chemical constituents) and disinfection; and
5. Any other reasonable uses.

2.5 National Wetlands Inventory Map

A review of US Fish and Wildlife Service National Wetlands Inventory Maps indicated wetland areas are not present on the Property. However, a 2.56 acre freshwater forested/shrub wetland area is present to the southwest of the Property.

3. Current Operations & Processes

3.1 Current Operation Summary

The Property currently is utilized as a multi-tenant, corporate/industrial park with multiple leased tenant spaces. A tenant list provided by the Property owner indicating tenant location and activity is provided below:

Building No.	Square Footage	Tenant	Activity
1	89,324	Vacant	Not Applicable
4	15,668	Vacant	Not Applicable
1	4,271	Wintronics	Electrical Apparatus and Equipment Repairs
1	3,250	Zita Corporation	Music Instrument Rental / Repairs
1	1,600	Provident Service Associates	Ductwork Cleaning
2	1,575	Joe Cerami	Finishing Carpentry Contractor
1	900	Oveissi Sport	Sporting Store Warehouse
1	476	Garments For Less	Garment Distributor
1	905	Depalma Food Group, LLC	Food Distributor
1	1,689	Flaherty Machine & Manufacturing	Industrial Machinery & Equipment Merchant
1	253	Gator Lures, LLC	Sporting and Athletic Goods Manufacturing
1	1,557	Depalma Food Group, LLC	Food Distributor
1	1,088	James W. Loescher Contracting	Home Remodeling Contractor
1	1,232	Genni Research LLC	Computer Sales / Repairs
1	1,448	Flaherty Machine & Manufacturing	Industrial Machinery & Equipment Merchant
1	4,952	Zita Corporation	Music Instrument Rental / Repairs
1	3,470	Dubgifco, LLC	Other Misc. Store Retailers

1	123	Management Office	Management Office
1	110	Blue Water, Inc.	Beverage Product Warehouse
1	324	Blue Water, Inc.	Beverage Product Warehouse
1	552	Blue Water, Inc.	Beverage Product Warehouse
3	2,112	RW Delights	Baker of Soufflés
3	1,500	C.P Electric	Electrician
3	2,080	Noah's Bagels, Inc.	Bakery
3	1,390	Door Boy	Door Repairs / Installation
1	1,663	Blue Water, Inc.	Beverage Product Warehouse
1	1,953	Blue Water, Inc.	Beverage Product Warehouse
3	800	Premier Coating of NJ	Paint Contracting Warehouse
3	300	Alliance Printing and Promo	Sales Office for Promotional Printing Services
3	124	Thos Giannini Inc.	Finishing Carpentry Contractor
2	1,075	Competitive Glass & Mirror	Replace/Repair/Install Glass
2	925	Ken Prince Plumbing & Heating	Plumbing and heating repairs
Parking Lot	Not Applicable	Britez Landscaping	Landscape Contractor
Parking Lot	Not Applicable	Decorative Design Landscaping	Landscape Design Contractor
Parking Lot	Not Applicable	Long Hill Auto Service	Automotive Maintenance/Repair

Note the tenant list and information was provided by the site contact.

Based upon the observations made at the time of the site visit, some occupants of the *Property* likely are subject to the NJDEP Industrial Site Recovery Act (ISRA), N.J.S.A. 13:1K-6 et seq. and N.J.A.C. 7:26B should an ISRA applicable event occur.

3.2 Hazardous Substance/Waste Inventory

Hazardous substances and/or wastes can include items such as petroleum based oils, lubricants, or cleaning products. Containers of consumer products containing small quantities of hazardous constituents used for general housekeeping practices by the current tenants were noted by EWMA within the Property building. Several tenants stored various materials such as paints, cleaners, lubricants, and adhesives within the

individual tenant spaces. These materials were stored in their original containers and in their original packaging in 1–gallon containers, plastic tubes and assorted containers.

EWMA noted a steel 55-gallon drum in the western portion of the parking lot, near the asbestos landfill. The drum was not labeled and the contents were not known. Evidence of spill or release from the drum was not observed, as no staining was present on the asphalt.

EWMA observed a former laboratory in a second story portion of Building 1. The laboratory is abandoned and has been out of use for some time. EWMA observed 5-gallon containers of hazardous materials including styrene monomer, Ottpol K-21, dyes, and butyl acetate. In addition, EWMA observed bags of vermiculite and pieces of shingle siding material that appeared to be left over from National Gypsum Company asbestos manufacturing operations. The containers of liquids appeared to be in poor condition with corrosion evident. EWMA recommends properly disposing of these materials in accordance with Federal, State, and local regulations.

3.3 Wastewater Discharges & Process Waste Streams

Wastewater generated at the Property is limited to domestic sewage from bathrooms in the building. No process wastewater currently is generated at the facility. Wastewater discharged from the building is currently accommodated by the public treatment works of the Long Hill Township Municipal Utilities Authority. Based on observations, EWMA does not consider wastewater to be an AOC.

A review of a 1953 Survey Map of the former National Gypsum Company facility depicts a ‘sluiceway’ discharge channel beginning at the northern side of Building 1 and discharging to the west and in the direction of the Passaic River. The sluiceway is depicted in the area now covered by Building 2. EWMA noted a manhole inside Building 2 and in the adjacent parking lot to the west. It appears that the sluiceway noted in the 1953 map corresponds to this sewer drain.

TIFA obtained a permit through the Long Hill Township Building Department for the bypass of a septic tank and a building connection to the sanitary sewer system in April 1986. Based on this information, there is a potential for a septic system to be associated with the Property.

At present, wastewater generated at the Property is limited to domestic sewage from bathrooms in the building. No process wastewater currently is generated at the facility.

Wastewater discharged from the building is currently accommodated by the public treatment works of the Long Hill Township Municipal Utilities Authority.

3.4 Environmental Permits

EWMA obtained the following information online which relates to federal, state and local environmental permits at the Property. Lists of the permits with the type and identification number are provided in Section 5.3 below.

3.5 Enforcement Actions

No enforcement actions for violations of environmental law or regulations were identified during the records review for the Property.

4. History of Ownership & Operations

Several sources were reviewed to confirm the use of the Property from 1932 or before the Property was developed and naturally vegetated. These sources include review of city directories and historic aerial photographs. The ownership and operations history is provided below.

Name of Owner/Operator	Type of Operations	Dates of Operation	
		Start	End
Asbestos Ltd.	Asbestos Fabrication and Sales Facility	01/01/1927	01/01/1946
Smith Asbestos Inc.	Asbestos Roofing and Siding Products Manufacturing	01/01/1946	01/01/1953
National Gypsum Co.	Cement Asbestos Siding and Roofing Manufacturing	01/01/1953	01/01/1976
Tifa Ltd.	Pesticide Application Equipment Manufacturing	01/01/1976	01/01/1990
Tifa Realty Inc.	Multiple Industrial/Commercial Tenants and Offices	01/01/1976	05/05/1998
Tifa Realty Inc. % CBRE	Multiple Industrial/Commercial Tenants and Offices	05/05/1998	Present

Data reviewed identified the Property as commercially developed as early as the l920's. The Property was developed in 1927 when Asbestos, Ltd. began an asbestos fabricating plant. Asbestos Ltd. operated an asbestos fiberization and sales facility on-site until 1946. Smith Asbestos, Inc. acquired the Property from Asbestos Ltd. in 1946. From 1946 through 1953, Smith Asbestos manufactured asbestos roofing and siding products. Smith maintained an asbestos settling pond from which sediment was removed and disposed on Property. The asbestos plant and Property was purchased by National Gypsum Company (NGC) in 1953 and used for manufacturing cement asbestos siding and roofing until the plant closed in 1975.

The Property was later sold to Tifa Realty, Inc. in 1976 and the affiliate that operated a portion of the Property as a pesticide application equipment manufacturer and pesticide packaging distribution facility was Tifa, Ltd. Following the cessation of pesticide

manufacturing and distribution operations Tifa Realty, Inc. divided the building spaces into several individual tenant spaces and leased the spaces to various tenants. Twenty-four (24) tenants currently occupy the buildings. Tifa Realty, Inc. is the current owner of the Property.

4.1 Sanborn™ Fire Insurance Map Review

EWMA retained EDR to perform a search of available Sanborn™ Fire Insurance Maps for the Property. EDR indicated that Sanborn map coverage was not available for the Property and vicinity. EDR's Sanborn™ Map No Coverage Certification is provided in **Appendix 3**.

4.2 Aerial Photograph Review

EWMA reviewed aerial photographs provided by NETROnline, A Division of Nationwide Environmental Title Search, LLC at the internet site www.historicaerials.com, which depicts the Property in the years 1931, 1956, 1957, 1963, 1970, 1979, 1987, 1991, 1995, 2002, 2006, 2007, 2008, 2010, 2012, 2013 and 2015. A summary of the relevant features is provided below.

1931: The quality of the aerial photograph is poor; however, it appears that the Property is being developed for industrial purposes. The entire portion of the Property is cleared of woodlands and is undergoing development. The western portion of the Property, directly adjacent to the onsite buildings does not appear to be disturbed. The current railway system can be seen to the north of the Property and the Passaic River adjacent to the West. Division Avenue is shown to the east. The entire area surrounding the site during this time was mainly agricultural with a small quarry operation northwest of the Property. Additional parcels directly to the east and northeast are interpreted as being generally commercial with a few residences located to the northeast of the Property.

1956 & 1957: The Property has undergone several stages of development. Industrial structures are shown constructed on a large portion of the Property along Division Avenue. The parcel of undeveloped land west and directly adjacent has been removed of all trees and now appears to be an open field with automobile tracks. The properties directly to the north, east, and south are comprised mostly of commercial and some residential uses. The land surrounding the site area is mostly agricultural with some re-vegetation apparent.

1963 and 1970: The properties directly adjacent to the north, east, and south appear similar to the previous aerial photographs and are mainly commercial. There are two new larger structures present on the Property in these photographs, in the same vicinity

as the previous structures with a new paved parking area directly north of the structures onsite. Several apparent above ground storage tanks (ASTs) are located southwest of the onsite structure in the general vicinity of AOC-4. Some of the agricultural land surrounding the Property to the north, east, south, and west has been residentially developed.

1979: The Property appears similar to the previous aerial photographs; with the exception of the apparent ASTs located southwest of the onsite structure had been removed. The surrounding parcels appear unchanged from the previous aerial photographs, aside for a small expansion of operations at the Property adjacent to the south, and several new residential properties to the east. Most of the agricultural land that has not been developed has returned back to wooded areas.

1987, 1991 & 1995: The Property appears similar to the previous aerial photographs. The surrounding parcels appear slightly more developed then the previous aerial photographs.

2002: The western portion of the Property has been cleared and appears to have been capped and is mounded with an access road traversing. Additionally, a retaining wall is now seen along the Passaic River. The surrounding parcels appear unchanged from the previous aerial photographs.

2006, 2007, 2008, 2010, 2012, 2013 & 2015: No major changes to the Property and adjoining properties are depicted.

Review of aerial photographs indicates that the Property was utilized for industrial/commercial purposes from as early as 1931. Historic industrial activities associated with manufacturing have the have the potential to create an Areas of Concern at the Property.

4.3 Historic USGS 7.5 Minute Topographic Maps

4.3.1 Current Topographic Map

The USGS 7.5 Minute Topographic Maps (Bernardsville, NJ Quadrangles), indicates the Property to be approximately 243 feet above mean sea level (msl). The portion of the quadrangle depicting the Property is included on **Figure 1.**

4.3.2 Historic Topographic Maps

Historical USGS 7.5 Minute Topographic Maps were not obtained for review since other historical record sources documented herein provided the appropriate level of information regarding the Property and surrounding properties.

4.4 City Directory Abstract Review

EWMA ordered an EDR-City Directory Abstract, which is a compilation of available city directories that list the Property. The City Directory Abstract searched available files from 1972 to 2014. A copy of the EDR City Directory is attached as **Appendix 4**. The information regarding the Property is summarized below:

Entity	Address	From	To
National Gypsum Co. Inc.	50 Division Avenue	1972	1975
Gold Bond Building Products	50 Division Avenue	1975	1975
Blue Spruce Co.	50 Division Avenue	1979	1979
Garden State Air Freight	50 Division Avenue	1979	1979
Tifa Ltd.	50 Division Avenue	1979	2010
Esco Precision Inc.	50 Division Avenue	1982	1987
Gellner & Co. Inc.	50 Division Avenue	1982	2014
Geoscience Services	50 Division Avenue	1982	1982
Iden Industries	50 Division Avenue	1982	1987
McGahren Associates	50 Division Avenue	1982	1982
Mulab Inc.	50 Division Avenue	1982	1992
Sphinx Electroplating Corp.	50 Division Avenue	1982	1995
Texpar Trading Corp.	50 Division Avenue	1982	2000
Accurate Welding	50 Division Avenue	1987	1995
Aero Industries	50 Division Avenue	1987	1987
Am Home News Service	50 Division Avenue	1987	1987
Chiaramonte Offset Printing & Composition	50 Division Avenue	1987	2000
Computer Support of North America	50 Division Avenue	1987	1987
Crystaline Optics	50 Division Avenue	1987	1992
Custom Woodwork	50 Division Avenue	1987	1987
Growth Catering	50 Division Avenue	1987	1987
KH Enterprises	50 Division Avenue	1987	1992
Lands End Woodworks	50 Division Avenue	1987	1987
Pro-Com Inc.	50 Division Avenue	1987	1987
The Office Commissary	50 Division Avenue	1987	1987

Entity	Address	From	To
Tony International Co. Inc.	50 Division Avenue	1987	1987
US International Travel	50 Division Avenue	1987	1987
United Microcomputer Applications Inc.	50 Division Avenue	1987	1987
Watchung Mountain News Service	50 Division Avenue	1987	1987
Z & R Cutter Service Inc.	50 Division Avenue	1987	2014
A M Home News Service Inc.	50 Division Avenue	1992	1992
Beacon Light Diversified Fing	50 Division Avenue	1992	2005
Dash-Offset Inc.	50 Division Avenue	1992	1995
HFI	50 Division Avenue	1992	1992
Marlin Candle Co.	50 Division Avenue	1992	1992
Meade Kenneth	50 Division Avenue	1992	1995
Nelson G A	50 Division Avenue	1992	1992
Northeast Instruments Inc.	50 Division Avenue	1992	2010
Vikheine Machine Tool Corp. / Vikheine Precision	50 Division Avenue	1992	2010
Wintronics Inc.	50 Division Avenue	1992	2014
Anderson, D	50 Division Avenue	1995	1995
Franz Cabinet Co.	50 Division Avenue	1995	1995
Megiie Export Inc.	50 Division Avenue	1995	2010
Orbit Computer Systems Inc.	50 Division Avenue	1995	1995
Auto Drill LLC	50 Division Avenue	2000	2014
Bonduelle Inc.	50 Division Avenue	2000	2005
Burke Remodeling	50 Division Avenue	2000	2000
Dash Printing & Imaging Inc.	50 Division Avenue	2000	2000
Imperial Metals Products Inc.	50 Division Avenue	2000	2010
Lux Digital Inc.	50 Division Avenue	2000	2005
Oveissi International	50 Division Avenue	2000	2005
Providet Service Associate Inc.	50 Division Avenue	2000	2010
Raytek Corporation	50 Division Avenue	2000	2000
360 Viscom LLC	50 Division Avenue	2005	2005
A Travel A	50 Division Avenue	2005	2010
Alliance Prtg Promotional Services	50 Division Avenue	2005	2014
Dice Brothers Inc.	50 Division Avenue	2005	2005
Dre Imports Inc.	50 Division Avenue	2005	2010
Evans Hagen & Co.	50 Division Avenue	2005	2005
Grace Material Handling Co.	50 Division Avenue	2005	2014

Entity	Address	From	To
Imperial Metal Products Inc.	50 Division Avenue	2005	2010
Jersey Crusher Inc.	50 Division Avenue	2005	2010
Lawn Doctor	50 Division Avenue	2005	2010
Prestige Custom Cabinetry LLC	50 Division Avenue	2005	2014
Proforma Alliance Prtg PR	50 Division Avenue	2005	2014
Provident Service Associate Inc.	50 Division Avenue	2005	2014
Swartz Marc	50 Division Avenue	2005	2014
Sweet Tooth Distributors Inc.	50 Division Avenue	2005	2010
Tifa International LLC	50 Division Avenue	2005	2010
TKG Imaging Inc.	50 Division Avenue	2005	2005
Wood Works	50 Division Avenue	2005	2010
Allbook Inc.	50 Division Avenue	2010	2014
Bio Repository Resources LLC	50 Division Avenue	2010	2010
Donduelle Inc.	50 Division Avenue	2010	2010
C M S Commodity Management Systems	50 Division Avenue	2010	2010
Commodity Management Corp	50 Division Avenue	2010	2010
Dolce Desserts	50 Division Avenue	2010	2010
Elefante Music	50 Division Avenue	2010	2010
Faba Mario	50 Division Avenue	2010	2010
Gator Lures	50 Division Avenue	2010	2014
Genni Research	50 Division Avenue	2010	2014
High Gear Cyclery Inc.	50 Division Avenue	2010	2010
Jencks Signs Corp	50 Division Avenue	2010	2014
Neac Inc.	50 Division Avenue	2010	2010
Of Glory and Grace Studios	50 Division Avenue	2010	2010
Oveissi International	50 Division Avenue	2010	2014
Planet Ary & Pastry	50 Division Avenue	2010	2010
Roman Plumbing Heating	50 Division Avenue	2010	2010
RW Delights Inc.	50 Division Avenue	2010	2014
Somerset Hills Doors and Architecture	50 Division Avenue	2010	2014
Summit Protective Tech Corp.	50 Division Avenue	2010	2010
Top Flight Gymnastics	50 Division Avenue	2010	2014
Wild Bills Soda	50 Division Avenue	2010	2010
C P Electrical Engineering & Controls	50 Division Avenue	2014	2014
Garments for Less Inc.	50 Division Avenue	2014	2014
Huster Brokerage Ltd.	50 Division Avenue	2014	2014

Megan Gunn	50 Division Avenue	2014	2014
Take Flight Dance Center LLC	50 Division Avenue	2014	2014
Entity	**Address**	**From**	**To**
Tifa Realty Inc.	50 Division Avenue	2014	2014

Review of the city directories identified the Property has been used for commercial/industrial purposes from 1972 through 2014.

5. Government Records Search

The following sources were examined for information on the Property: 1) EDR Radius Report; 2) NJDEP On-line Data Miner Public Records Access Program (Data Miner); 3) NJDEP GeoWeb; 4) U.S. Environmental Protection Agency (EPA) Envirofacts; and 5) U.S. EPA Enforcement and Compliance History Online (ECHO). EWMA also submitted an Open Public Records Act (OPRA) request to NJDEP and a government records request to municipal offices for documents pertaining to the Property.

Entity	OPRA Request Sent	Reviewed Files	Individual Contacted
Township of Long Hill Records	2/19/2019	Discussed Below	City Clerk
Morris County Records	2/19/2019	Discussed Below	County Clerk
NJDEP Records	2/19/2019	Discussed Below	NJDEP Files and Databases
US Environmental Protection Agency Records	Online Search	Discussed Below	USEPA Envirofacts

5.1 Municipal, County and State Files

Township of Long Hill Records

A records request was sent to the Township of Long Hill Clerk on February 19, 2019 to obtain environmental information from the Building, Engineering, Health, and Fire Departments. EWMA requested environmental records including reports of spills, hazardous materials releases/responses, USTs, and hazardous materials storage at the Property. The Township of Long Hill Building Department provided an approved permit for the abandonment of two 30,000 gallon heating oil USTs at the Property A copy of the records and the record request is included as **Appendix 5**.

Morris County Records

On February 19, 2019, EWMA submitted a records request to the Morris County Clerk's Office for information related to the Property. EWMA requested environmental records including reports of spills, hazardous materials releases/responses, USTs, and hazardous materials storage at the Property. The County indicated that they did not have any records for the Property. A copy of the record request and response are included as **Appendix 5**.

New Jersey Department of Environmental Protection (NJDEP) Environmental Records

On February 19, 2019, an OPRA request was submitted to the NJDEP for environmental information related to the Property. The NJDEP response indicated the department has responsive records for the Property. It should be noted that EWMA is still awaiting records from the NJDEP SRP. If information is received that alters our conclusions of this report, an update will be provided in an addendum. A copy of the record request and response is included as **Appendix 5**.

5.2 EDR Database Review

The Environmental Data Resources, Inc. (EDR) report was reviewed to obtain the latest information from federal, state and local agencies concerning sites with AOCs within the "approximate minimum search distance". The primary focus of this review is to evaluate whether there are off-site sources of environmental contamination that could impact the site. The EDR Radius Report is included as **Appendix 6**.

The results of the database search are arranged in the EDR report in order of proximal distance from the "Target Property" (i.e., from closest to farthest). Please note that EDR's "upgradient/downgradient" determinations are based on topographical elevations using the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. The EDR report establishes general topographic grade towards the south in the Property vicinity. EDR further states that groundwater flow is variable from site to site and accurate assessment of groundwater flow can only be field determined for each site.

The EDR report identified 143 sites within the searched radii. The Property was identified as A1 through A31, B32 and B33 on the searched databases. A summary of the sites identified at the Property is as follows:

- Gellner & Co. Inc. (A1), Tifa International LLC (A24) and Sphinx Electro-Plating Corp. (A26) were identified on the RCRA NonGen / NLR database. The listed

hazardous waste summary included D001 -- an ignitable hazardous waste, D002 -- a corrosive hazardous waste, D003 -- a reactive hazardous waste that reacts violently with water. The summary also includes arsenic, lindane, chlordane, PCE, aluminum phosphide, arsenic oxide, dinoseb, chlordane – alpha and gamma isomers, cyclohexanone, cyclohexane. No violations were found

- Imperial Metal Products (A2), Gator Lures Corp (A3), Sphinx Electro-Plating Corp. (A5 and A17), Lux Digital Corp (A8), RW Delights Inc. (A14), Esco Precision Inc. (A16), AutoDrill Corp. (A18), Gellner & Co. Inc. (A21), Lawn Doctor of Bernardsville (A22), Wintronics Inc. (A25), Wild Bills Olde Fashion Soda Pop (A28) and Asbestos Dump (B32) were identified on the FINDS database. The FINDS Report is a computerized inventory of all facilities that are regulated or tracked by the EPA. These facilities are assigned an identification number that serves as a cross-reference for other databases in the EPA's program system.

- Tifa Ltd. (A4 and A6) was identified on the NJ Release and NJ SPILLS databases for an incident on December 5, 1980, involving black liquid. No other information regarding the spill was reported.

- Sphinx Electro-Plating Corp. (A5) and Gellner & Co. Inc.(A21) were also identified under the ECHO database.

- Tifa Ltd. (A7) and Asbestos Dump (A30) were identified on the Integrated Compliance Information System (ICIS) database. Tifa operates under SIC code 5169. The Property had enforcement action and a penalty. Additionally, the sites were listed under the FINDs and ECHO databases. Tifa (CI) Limited (A31) was also identified on the ICIS database.

- Tifa Limited (A9) was identified on the NJ HIST LUST, NJ UST, NJ Release, NJ ISRA and NJ NPDES databases. The HIST LUST is under case number 93-01-07-1125 due to a spill to land from the No. 6 oil UST. A No Further Action Letter (NFA) was issued on 11/28/1994. The NJ UST listing is for two (2) 30,000 gallon No. 6 heating oil USTs that are abandoned in place. The NJ Release listing is for two case numbers (93-11-23-1322-15 and 93-11-23-1415-23) that were called in due to strong chemical odors that were noted inside the facility due to pesticide manufacturing. The NJ ISRA listing was for the sale of the Property on October 6, 2009 and is listed under Case No. E20090221 and PI Number 024069 with multiple case names. Finally, the NJ NPDES listing is for Sphinx Electroplating Corp under permit number NJ0062341. They are listed under the discharger classification as minor and were located in Building 3. There was a renewal and they discharged to POTW (SIU).

- Tifa Intl LLC (A10) and Tifa Ltd (A19) are listed under the SSTS database Section 7 Tracking System (SSTS– USEPA pesticide production tracking system) for fish toxicants, Rotenone (broad-spectrum insecticide, and pesticide) manufacturing for export); Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) where they blend, formulate, or concentrate multiple insecticides, herbicides, and antifouling paints, some which have restricted use and marketed in the US, and exported out of the US.

- Pole Transformer/JC1499 (A11) is listed under the NJ SPILL database for a spill of approximately 60 gallons of Non-PCB transformer oil due to a motor vehicle accident with a utility pole on March 30, 1995. Case No. 95-03-30-1526-49 was assigned. Area of 50 Division Ave (A23) was also listed under the NJ SPILL database for a spill of transformer oil on March 30, 1995. Case No. 95-03-30-1500-12 was assigned.

- The Property is listed as EDR site A12 on the NJ Release database for a citizen complaint regarding improper disposal/storage at Top Flight Gymnastics on June 20, 2014. Case No. 14-06-23-1404-13 was assigned.

- The Property is again listed under EDR site A13 on the NJ Release database under case number 97-1-20-1424-00 due to strong odors coming from facility and contaminating the air.

- Northeast Instruments, Inc. is listed as EDR site A15 under the MLTS database under license number 29-28063-01.

- Tifa Limited is listed as EDR site A20 on the FTTS database, which tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA, and EPCRA, HIST FTTS. The Property is listed as a producer and has a violation.

- Annis Fuel Oil Services Inc. is listed as EDR site A27 under the NJ ENGINEERING CONTROLS and NJ MANIFREST databases. The DER filing data was on September 8, 2009 and is for asbestos to a depth of 100 feet. Their NJ Manifest EPA Id number is NJD980762199.

- Tifa International Corp. is listed as EDR site A29 under the NJEMS database. The NJEMS Sites are points representing sites regulated by NJDEP under one or more regulatory permitting or enforcement programs, or sites that are otherwise of some interest to a NJDEP program. No violations were reported in the database.

- The EDR report lists Asbestos Dump (B33) in the Delisted NPL, SEMS, US ENGINEERING CONTROLS, US INSTITUTIONAL CONTROL, ROD, PRP, ICIS and CONSENT databases. The Asbestos Dump was listed to the NPL in September 1993. The site was removed ("delisted") from the NPL list on July 12, 2010.

The adjacent sites are not considered a AOC in connection with the Property due to one of the following reasons: a) they are topographically downgradient of the Property based upon their locations using the EDR Overview & Detail Maps and approximate topographic elevations using the 7.5 minute USGS Topographic Map for the Bernardsville, NJ Quadrangle; b) they are at too great a distance from the Property; c) there is no documentation that a discharge has occurred; or d) an indicated spill case has been closed by the appropriate regulatory agency.

Please note that according to the attached EDR Report, two "orphan" sites are located within the searched radii. These sites have a federal or state classification, but due to an address or zip code deficiency they were not plotted on the EDR maps. Based upon the orphan listings, it does not appear that any of the sites are located within close proximity to the Property. Refer to the EDR Report that is attached as **Appendix 6** for a listing of orphan sites.

5.3 NJDEP GeoWeb and Data Miner

The NJDEP On-line Data Miner Public Records Access Program (Data Miner) and the NJDEP GeoWeb were reviewed to document relevant information regarding former owners and occupants of the Property. The Geo-Web outputs and Data Miner information are included as **Appendix 7**. Based on the NJDEP GeoWeb & Data Miner records, the Property is identified on the following databases:

Preferred ID	Name	Active	Address	Type
Site Remediation				
024069	Tifa Limited	Y	50 Division Avenue, Long Hill Township, NJ 07946	SRP-PI
Right to Know				
00000047219	RW Delights Inc.	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know

00000037224	Autodrill Inc.	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
00000012073	David Reich	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
00000046926	Gator Lures LLC	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
64237300000	Gellner & Co. Inc.	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
90593500000	Imperial Metal Products	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
0000016785	Lux Digital LLC	N	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
54323700000	Sphinx Electro-Plating Corp.	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
58493900000	Tifa Ltd. (NJ Corp) Tifa Square	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
0000046959	Wild Bill's Olde Fashion Soda Pop Co.	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know

63088600000	Wintronics Inc.	Y	50 Division Avenue, Long Hill Township, NJ 07946	Pollution Prevention/Right to Know
Water Quality				
46928	Sphinx Electro-Plating Corp.	Y	50 Division Avenue, Long Hill Township, NJ 07946	NJPDES
297268	Tifa International LLC	Y	50 Division Avenue, Long Hill Township, NJ 07946	NJPDES
Hazardous Waste				
NJX000241737	Esco Precision Inc.	N	50 Division Avenue, Long Hill Township, NJ 07946	Hazardous Waste Generator
NJN986627792	Gellner & Co. Inc.	N	50 Division Avenue, Long Hill Township, NJ 07946	Hazardous Waste Generator
NJX000264721	Gellner & Co. Inc.	N	50 Division Avenue, Long Hill Township, NJ 07946	Hazardous Waste Generator
NJD980762199	Tifa International LLC	N	50 Division Avenue, Long Hill Township, NJ 07946	Hazardous Waste Generator
NR2863509173	Tifa International LLC	Y	50 Division Avenue, Long Hill Township, NJ 07946	Hazardous Non-Regulated
Solid Waste				

601763	Millington Asbestos	Y	50 Division Avenue, Long Hill Township, NJ 07946	Solid Waste Facility
Pesticides				
95394A	Lawn Doctor of Bernardsville	Y	4 John Street, Morristown, NJ 07960	Pesticide Applicator Business
U000633	Tifa Limited	U	50 Division Avenue Long Hill Township, NJ 07946	Pesticide Dealer Business

5.4 U.S. EPA ECHO and Envirofacts

The USEPA Envirofacts database was examined on February 19, 2019. Envirofacts is a single reporting tool for obtaining USEPA information from multiple EPA databases. This tool allows firms to search EPA databases on a specific Property(s) without filing a Freedom of Information Act (FOIA) request. The Property located at 50 Division Avenue, Millington, NJ was identified on the USEPA Envirofacts databases under Gellner & Co. Inc., Tifa International Corp., and Sphinx Electro-Plating Corp. The USEPA Envirofacts online response for 50 Division Avenue, Millington, NJ 07946 is included as **Appendix 8**.

6. Regulatory History

6.1 Discharge History of Hazardous Substances and Wastes

During the years prior to National Gypsum's (NGC) acquisition, off-spec asbestos products and asbestos fibers and sediment from settling pond areas were dumped on the western portion of the Property creating a 4-5 acre asbestos landfill adjacent to the Passaic River. The materials included an estimated 90,000 cubic yards of primarily discarded product placed in upland area and a 330 by 75 foot 'asbestos mound' consisting primarily of asbestos fibers. The disposal areas were largely covered with soil. Beginning in 1977, public concerns were raised about the health and environmental impacts of the asbestos wastes. The NJDEP issued an Administrative Order to NGC regarding corrective action with regard to the asbestos materials.

The asbestos landfill portion of the Property was investigated and delineated by NGC and the USEPA. In 1983, the asbestos dump site was added as a "Superfund Site" to the National Priority List (NPL) established by the USEPA under the Superfund Program. The site was assigned EPA CERCLIS ID # NJD980654149. The asbestos landfill was investigated and delineated by the USEPA and was subsequently capped, covered with vegetated material secured with a fence, and a Deed Notice was put in place on August 29, 2008. The site was delisted in 2010 after consolidating waste, solidifying materials, capping areas, installing drainage control and slope preservation, and restricting future use of portions of site.

On January 7, 1993 the NJDEP Spill Hotline was notified of a spill to land from a No. 6 heating oil UST and case number 93-01-07-1125 was assigned. According to information obtained from the Long Hill Township Building Department file, two 30,000-gallon No. 6 heating oil USTs were abandoned in-place on February 1, 1993. The USTs were investigated and one UST had evidence of contamination present in soil samples collected from around it. A bedrock monitoring well (MW-1) was installed and groundwater samples were subsequently collected. Fuel oil constituents were not reported, however TCE was identified in the groundwater at 34 ug/l, exceeding the NJDEP Ground Water Quality Standards (GWQS). Nevertheless, NJDEP issued a No Further Action (NFA) for the UST closures on November 28, 1994 indicating an assumption that the TCE would be addressed as part of the NPL work. The USTs were filled will slurry and the monitoring well was sealed.

At present, wastewater generated at the Property is limited to domestic sewage from bathrooms in the building. No process wastewater currently is generated at the facility. Wastewater discharged from the building is currently accommodated by the public treatment works of the Long Hill Township Municipal Utilities Authority.

6.2 Previously Conducted/Ongoing Remediation that has not yet received NFA/RAO

The remediation work was conducted under Army Corps of Engineers oversight and Remedial Action approved by EPA in 2001 including 30-year Operations and Maintenance Plan. EPA delisted the site effective July 12, 2010. The Federal Register entry proposing delisting described NJDEP as responsible for operation and maintenance activities (inspect and maintain the 6-foot chain link access control fence; periodic retaining wall, soil cap and other design elements; mowing/pruning; monitoring surface water and sediment of Passaic River; groundwater monitoring pursuant to landfill closure requirements.

As part of the operations and maintenance plan, five year inspections are conducted. The 2005 and 2010 five-year review indicated no significant offsite migration and remedial elements were functioning as intended. The 2010 sediment sampling was conducted as part of the 2010 inspection and identified asbestos in sediments. Re-sampling as part of the 5-year review was non-detect.

6.3 Protectiveness of Past Remedies/Order of Magnitude Analysis

TIFA filed a Deed Notice with the Morris County Clerk on September 8, 2008 (Block 12301, Lot 1) that restricts groundwater use and that limits development or intrusion into the asbestos landfill cap. The Deed Notice was filed as part of the remedial requirements for the site.

Since the remediation standards for the contaminants of concern have not changed by an order of magnitude since the establishment of the Deed Notice and CEA, an order of magnitude analysis is not required.

7. Area of Concern Narrative

The following is a summary of the findings and recommendations for each of the AOCs identified at the Property:

AOC-1: Asbestos Landfill (Possible Pockets of Asbestos Fill throughout Property)

The site contains a 4-5-acre asbestos landfill closed under CERCLA (Superfund) and is a delisted NPL site. Deed Notice/ use restrictions and engineering controls have been established as part of remedial measures. NGC and EPA completed response measures at the site including investigation and remediation of the landfill via capping, slope stabilization and institutional controls. USEPA's ROD notes several contaminants (in addition to asbestos) in soil and groundwater above current remediation standards. According to the ROD and the EPA online summary, "Contaminants of Concern at Asbestos Dump", arsenic, asbestos, benzene, bis(2ethylhexyl)phthalate, cadmium, lead, mercury, nickel, and trichloroethene (TCE) were detected on-site. Mercury was noted possibly to be associated with a fungicide applied to asbestos shingles. According to USEPA, groundwater was not further addressed since it was determined not to pose a significant risk to public health and the environment and therefore was not addressed in the ROD.

Based on the above information, EWMA considers the contamination detected by the EPA, the delisted NPL site status and related conditions as an AOC with respect to the Property. EWMA notes that the approved ROD for site remediation requires ongoing monitoring and maintenance of the engineering controls.

The asbestos dump landfill remains on-site. It was observed to be a vegetated area sloping down from the western edge of the parking area to the Passaic River. The landfill is enclosed behind a chain link fence.

AOC-2: Former Fuel Oil USTs

The EDR database report listed the Property as a Historic LUST site under case number 93-01-07-1125 due to a spill to land from the No. 6 heating oil UST. According to information obtained from the Long Hill Township Building Department file, two 30,000-gallon No. 6 heating oil USTs were abandoned in-place on February 1, 1993. The USTs were investigated and one UST had evidence of contamination present in soil samples collected from around it. A bedrock monitoring well (MW-1) was installed

and groundwater samples were subsequently collected. Fuel oil constituents were not reported, however TCE was identified in the groundwater at 34 ug/l, exceeding the NJDEP Ground Water Quality Standards (GWQS). Nevertheless, NJDEP issued a No Further Action (NFA) for the UST closures on 11/28/1994 indicating an assumption that the TCE would be addressed as part of the NPL work. The well was later sealed, the NPL site delisted, and further response regarding TCE in bedrock aquifer apparently was not conducted. The monitoring well record and abandonment report for MW-1 is included in **Appendix 13**.

The USTs were filled will slurry and the monitoring well was sealed. A copy of the UST abandonment information is included in **Appendix 9**. The former 30,000-gallon No. 6 heating oil USTs are considered an AOC warranting further investigation.

AOC-3: Former Garage and Tank Area between Buildings 3 & 4

A review of a 1953 Survey Map of the former National Gypsum Company facility depicts a tank on the southwestern side of Building 3 and situated between Building 3 and a garage building along Stone House Road. It is not clear if the tank was situated above or below grade (it has the shape of a propane tank), what the tank stored, or if it was removed, abandoned or investigated. Based on the information available for review EWMA considers the unknown tank identified on the map to be an AOC warranting further investigation.

AOC-4: Former Above Ground Storage Tanks (ASTs) between Buildings 3 and 4

A review of an undated Property Survey Map of the former National Gypsum Company facility depicts a tank farm containing six 5,000-gallon tanks with a berm area and adjacent to the south western side of Building 3. Additionally, during the aerial photograph review, the six 5,000-gallon ASTs are visible on the 1963 and 1970 aerial photographs in a similar location to that depicted on the survey map. Based on the information available for review EWMA considers the six 5,000-gallon ASTs identified on the map to be an AOC warranting further investigation.

AOC-5: Former Gas Pump and Suspected UST

A review of a 1953 Survey Map of the former National Gypsum Company facility depicts a gas pump on the eastern side of Building 1 along Division Ave. The area is marked by a gravel surface cover suggesting a tank removal in this area. It is not clear that this has been assessed. Based on the information available for review EWMA considers the gas pump to be an AOC warranting further investigation.

AOC-6: Former Tank Field

A historical site plan depicted a rectangular feature labeled “Tanks” (presumably a tank field) north of Building 3 and in the location now covered by Building 2. No other information regarding this potential tank field was available. Based on the information available for review EWMA considers this feature an AOC warranting further investigation.

AOC-7: Former Oil Pit

A review of a 1953 Survey Map of the former National Gypsum Company facility depicts Buildings 1 and 3 (Buildings 2 and 4 were not yet constructed) and further identifies: two “oil pits” on north side of Building 1. The area is currently paved and it is not clear if this concern has been assessed. Based on the information available for review EWMA considers the oil pits identified on the map to be an AOC warranting further investigation..

AOC-8: Discharge Area of Former Sluiceway

A review of a 1953 Survey Map of the former National Gypsum Company facility depicts a ‘sluiceway’ discharge channel beginning at the northern side of Building 1 and discharging to the west and in the direction of the Passaic River. The sluiceway is depicted in the area now covered by Building 2. EWMA noted a manhole inside Building 2 and in the adjacent parking lot to the west. It appears that the sluiceway noted in the 1953 map corresponds to this sewer drain. Mr. Mata believes that this line discharges storm water from the roofs of the buildings. It is not clear if the sluiceway channel was investigated. Based on the information available for review EWMA considers the sluiceway channel discharge area identified on the map to be an AOC warranting further investigation.

AOC-9: Transformer House

A review of an undated Property Survey Map of the former National Gypsum Company facility depicts the four buildings and further identifies a transformer house on the eastern side of Building 1. EWMA observed the transformer house and noted one pad-mounted transformer located inside and situated over a concrete pad. Additionally, another pad-mounted transformer was observed off the northeast corner of Building 2. The transformers are reportedly owned and maintained by PSE&G. Evidence of spill or release from the transformers was not observed, as no staining was present on the concrete pad. However, it is possible that a previous transformer or transformers were in-place of the current transformer and it is not clear if the transformer house was

previously assessed. Based on the information available for review EWMA considers the transformer house and potential PCB's from former transformers and equipment to be an AOC warranting further investigation.

AOC-10: Former Production Well

A review of a 1953 Survey Map of the former National Gypsum Company facility depicts a former well pad noted as 'well concrete slab' adjacent to the northern side of Building 1. It appears that the well corresponded to an on-site production well. EWMA notes that it appears that an addition to the northern portion of the building is covering its original location. Based on the information available for review, it is unknown whether the well was appropriated closed in accordance with NJDEP requirements.

A well search was conducted in accordance with NJDEP requirements in an attempt to locate any well records/permits that may coincide with this former production well. The results of the well search are provided as part of the receptor evaluation included as **Appendix 1**.

AOC-11: Former Septic Systems

Indications of the presence of on-site septic systems or cesspools were not observed at the Property during the inspection or identified in interviews or record reviews. Long Hill Township Municipal officials reported that the buildings are connected to public sewer.

However, TIFA obtained a permit through the Long Hill Township Building Department for the bypass of a septic tank and a building connection to the sanitary sewer system in April 1986. Based on this information, the septic system is considered an AOC. There is a potential for a septic system to be associated with the Property. If evidence of a former septic system is observed during any redevelopment of the Property, the appropriate number of soil and/or groundwater samples will be collected in compliance with NJDEP TRSRs.

AOC-12: Former Rail Line and Equipment Testing Area

A review of a 1953 Survey Map of the former National Gypsum Company facility depicts a former railroad siding running north to south and through the center of Building 1. It is currently covered and no longer in use. It is likely that the previous owner and occupants of the Property used the rail siding for shipments of various materials including asbestos products and pesticides and herbicides. Hazardous materials

typically are used during routine maintenance of railroad tracks and sidings. Wooden railroad ties typically were treated with preservatives that may contain heavy metals, polycyclic aromatic hydrocarbons (PAHs), pesticides, and PCBs. In addition, PCB-containing petroleum products associated with diesel engine and equipment operations in the vicinity of the railroad sidings have the potential to create an AOC at the Property. Further investigation is warranted for this AOC.

AOC-13: Former Residential Structures/Dwellings

A review of a 1953 Survey Map of the former National Gypsum Company facility depicts former dwellings on the Property. One dwelling is located on the southwestern portion of the Property and within the asbestos land fill. Three (3) structures which are designated as '2-story dwellings and frame building' are located on the northern portion of the Property and in the location of Building 2 and the current asphalt-paved parking lots.

No indications of USTs (e.g., vent pipes, fill ports, etc.) were observed at the Property during the inspection. However, EWMA notes that since dwellings and structures previously occupied the Property and were later demolished it is reasonable to assume that they were heated by fuel oil stored in USTs. However, there were no records of UST removals with the Long Hill Township Building Department or from available sources and it is not clear that any of these concerns have been assessed.

Based on the information available for review EWMA considers the potential USTs associated with the former dwellings to be an AOC warranting further investigation.

AOC-14: Steel Floor Plate

EWMA noted steel floor plates in the hallway of Building 1. The floor plate extends the length of the building in a north to south direction and turns to a hallway that runs west. EWMA lifted the steel plate in three areas and noted that the plates were set in concrete. It is not known if the steel plates covered a trench that was filled with concrete or whether they were put in place to accommodate heavy forklift travel. Because the steel plates cover a concrete area, no trenches were present and there is no evidence of staining or a discharge, no further investigation of the steel plates is warranted at this time.

AOC-15: Drums

EWMA had previously noted two plastic 55-gallon drum on the south loading dock between Building 1 and Building 3 during a 2015 site visit. The drums reportedly contained used motor oil and were left behind by a former tenant. Evidence of a spill or release from the drums was not observed at the time, as no staining was present on the concrete loading dock. The drums have since been removed from the Property.

EWMA had also previously observed a third steel 55-gallon drum on the north loading dock between Building 1 and Building 2. The drum was not labeled and the contents were unknown. Evidence of black staining was noted on the sides of the drum and on the concrete beneath it. The drum has since been removed from the Property.

During the recent site visit, EWMA noted a steel 55-gallon drum in the western portion of the parking lot, near the asbestos landfill. The drum was not labeled and the contents were not known. Evidence of spill or release from the drum was not observed, as no staining was present on the asphalt. EWMA recommends the drum be removed and properly disposed.

AOC-16: Floor Drains

EWMA observed a floor drain in the Wild Bill Soda lease space within Building 2 during the site visit. According to municipal sources, the drains discharge to the municipal sanitary sewer system. Because the drain is reportedly connected to the sanitary sewer and there is no evidence of staining or a discharge, no further investigation is warranted at this time.

If evidence of a discharge associated with the floor drains is observed during any redevelopment of the Property, the appropriate number of soil and/or groundwater samples will be collected in compliance with NJDEP TRSRs.

AOC-17: Hazardous Material Storage Area

Hazardous substances and/or wastes can include items such as petroleum based oils, lubricants, or cleaning products. Containers of consumer products containing small quantities of hazardous constituents used for general housekeeping practices by the current tenants were noted by EWMA within the Property building.

Several tenants stored various materials such as paints, cleaners, lubricants, and adhesives within the individual tenant spaces. These materials were stored in their original containers and in their original packaging in 1–gallon containers, plastic tubes and assorted containers. There was no evidence of staining or a discharge at the time of the site visit and no further investigation is warranted at this time.

A variety of chemicals and containers were observed in a former laboratory space. The containers need to be removed and materials properly disposed.

AOC-18: Compressor Vent

EWMA had previously noted an out-of-service air compressor in the vacant warehouse area of Building 1 during a 2015 site visit. The compressor was formerly used by TIFA. EWMA had previously observed the area beneath the compressor and evidence of a discharge was not noted. In addition, the concrete beneath the compressor appeared intact and significant cracks (i.e., >¼-inch in width) were not observed. The air compressor was has since been removed.

EWMA noted an active compressor in the Flaherty Machine and Manufacturing leased space within Building 1. Minor compressor oil staining was observed on the concrete beneath the compressor, however; the integrity of the concrete appeared intact during the Property visit and significant cracks (i.e., >¼-inch in width) were not observed. Based on the observed conditions, EWMA does not recommend further investigation of this AOC at this time.

AOC-19: Concrete Floor Sump and Slop Sinks

One concrete floor sump is located in the painters shop within Premier Painting of NJ leased spaced within Building 3. Water collected from the sump and a slop sink within the painters space discharge into the sanitary sewer system. The sump is constructed of concrete and appeared to be in good structural condition (no fractures or cracks noted). Because the sump's discharge pipes are connected to the sanitary sewer and there is no evidence of staining or a discharge, no further investigation is warranted at this time.

EWMA observed several slop sinks in the tenant spaces and bathrooms inside the buildings. According to municipal sources, the drains discharge to the municipal sanitary sewer system. Because the drains reportedly are connected to the sanitary sewer and there is no evidence of staining or a discharge, no further investigation is warranted at this time.

AOC-20: Concrete

The interior floor and interior walls of the buildings were visually inspected for stains and/or corrosion. In general, EWMA did not observe stained areas in the majority of the spaces visited; however, concrete surface staining was noted in two former machine shop tenant spaces within Building 1. Concrete floors and walls were stained in places, and the buildings have up to 80 years of industrial use. Redevelopment of the site will require demolition of existing structures and NJDEP requires assessment of concrete prior to recycling and reuse. Therefore, further investigation is warranted for this AOC.

AOC-21: Historic Fill

Based on information obtained from the NJDEP Geo-Web, the Property is partially mapped within a historic fill area. Further investigation is warranted to confirm the presence/absence of historic fill material at the Property.

AOC-22: Dumpsters

Solid waste generated at the Property consists of domestic municipal waste and recyclable materials that are stored in dumpsters throughout the Property. The solid waste is removed by a private disposal company. EWMA observed the dumpsters and did not note evidence of a discharge or spill or evidence of hazardous materials present during the site visit. Based on this observation, no further investigation is warranted at this time.

Suspected ACM within Onsite Buildings

Based upon the observations made at the time of the site visit, possible asbestos was noted to be present in panels, floor tile and the mastic in Building 1, and roofing components on-site. Redevelopment of the site will require the proper removal and disposal of any ACM.

8. Site Investigation

8.1 Technical Overview

8.1.1 Reliability of Analytical Data

In accordance with N.J.A.C. 7:26E-2 (Quality Assurance for Sampling and Laboratory Analysis), reliable laboratory analytical data was generated for the samples collected. Samples were collected following the NJDEP *August 2005 Field Sampling Procedures Manual* (FSPM).

The laboratory analytical data for the samples are deemed reliable since sample holding times and method detection limits were not exceeded. Samples were placed in a cooler maintained at 4°C in order to ensure proper preservation. Proper chain of custody documentation was maintained until delivery to the laboratory for analysis. The samples were submitted to Integrated Analytical Laboratories, LLC (IAL; NJDEP Certified Lab No. 14751). The laboratory analytical data packages prepared by IAL are provided in **Appendix 16**. The HAZSITE data was submitted electronically via email to srpedd@dep.nj.gov. Copies of the electronic data deliverable (EDD) submissions are provided as **Appendix 17**.

A portable Photo Ionization Detector (PID), equipped with a 10.6 eV UV lamp and properly calibrated in the field with isobutylene span gas prior to use each day, was used to field screen soils. Pursuant to N.J.A.C. 7:26D amended September 18, 2017, the NJDEP Residential Direct Contact Soil Remediation Standard (NJDEP RDCSRS), the NJDEP Non-Residential Direct Contact Soil Remediation Standard (NJDEP NRDCSRS), and the NJDEP Default Impact to Ground Water Soil Screening Level (NJDEP IGWSSL) will be utilized herein as the source of applicable soil remediation standards (amended 9/18/17). All soil analytical results summarized in the tables are shown as ppm unless otherwise stated.

Pursuant to N.J.A.C. 7:9C, the NJDEP Class II-A Specific Groundwater Quality Standards (NJDEP GWQS) will be utilized herein as the source of applicable groundwater quality standards (last updated 8/9/2018). All groundwater analytical results summarized in the tables are shown as parts per billion (ppb) unless otherwise stated.

8.2 Boring Logs

Boring logs were generated during this phase of work. Copies of the boring logs are included as **Appendix 14**.

8.3 Significant Events or Seasonal Variation

Significant events or seasonal variations that would have influenced sampling procedures or analytical results were not noted during the investigation activities.

8.4 Receptor Evaluation

A Receptor Evaluation has been completed for the Property and is being provided concurrently with this Report. A copy of the Receptor Evaluation is provided as **Appendix 1**.

8.5 Summary of Ecological Assessments Conducted

An Ecological Evaluation (EE) was conducted for the Property in accordance with the NJDEP Site Remediation Program's TRSR, as listed in N.J.A.C. 7:26E. In general, the EE is part of a tiered approach to ecological risk assessment that was conducted as part of the investigation at the Property. The purpose of the EE is to identify the potential for adverse ecological effects resulting from site contamination on sensitive ecological receptors within the vicinity of the Property.

The following sections of the EE provide an evaluation of the contaminants detected on the Property that are of ecological concern, a general qualitative description of all environmentally sensitive areas within and immediately adjacent to the Property, a description of contaminant pathways to any environmentally sensitive areas, and a summary of findings and conclusions. The findings and conclusions will be used to evaluate whether more comprehensive ecological assessment required by N.J.A.C. 7:26E-4.7 is appropriate, or whether no further action is warranted.

Contaminants of Potential Ecological Concern:

Contaminants of Potential Ecological Concern (COPEC) are those contaminants that exhibit the ability to bio-magnify or bio-accumulate, or contaminants exhibiting concentrations that exceed available criteria or guidelines recommended by the NJDEP,

the National Oceanographic and Atmospheric Administration (NOAA), the USEPA, and other federal natural resource protection agencies for use in conducting ecological assessments and investigations. Benchmark screening values for soil were obtained from "Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects of Terrestrial Plants: 1997 Revision (August, 1997). The benchmark screening values provided are used only for screening purposes and not to identify if COPECs are present on the Property. They are not intended as regulatory guidance for determining if site-specific remediation measures are necessary.

Site investigation activities included the collection of soil and groundwater samples. Analytical results of the soil and groundwater samples revealed compounds that exceed the applicable NJDEP standards. Specifically, several metals (aluminum, beryllium, manganese and nickel) were identified in soil samples throughout the site at concentrations exceeding the NJDEP Impact to Ground Water Soil Screening Levels (IGWSSLs) but did not exceed the NJDEP DCSRS. They are common, naturally occurring elements and likely reflect background conditions. Mercury was also reported in a limited number of soil samples at concentrations exceeding the NJDEP IGWSSLs. Mercury may be site-related as phenyl mercuric acetate (PMA) reportedly was used in past on-site manufacturing. Extractable Petroleum Hydrocarbons (EPH) was also identified in several soil samples above the NJDEP Residential Direct Contact SRS and Ecological Screening Criterion. This contamination is associated with the former oil pits at the Property.

Analytical results of the groundwater samples revealed elevated levels of chlorinated volatile organic compounds (cVOCs) (Tetrachloroethene (PCE) and associated degradation daughter products) above their respective NJDEP Groundwater Quality Standards (GWQS) and Vapor Intrusion Screening Levels (VIGSL) triggering a potential need for a future vapor intrusion investigation. These constituents are associated with historic operations at the Property. Additionally, PAHs (Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene & Indeno(1,2,3-cd)pyrene) and Metals (Aluminum, Arsenic, Beryllium, Iron, Lead, Manganese, Mercury, Nickel, and Sodium) were found at concentrations above the NJDEP's GWQS. The metals aluminum, beryllium, iron, manganese and sodium are common, naturally occurring elements and likely reflect background conditions. While the cVOC, PAH and remaining metals are attributed to historic site operations and/or historic fill.

Environmentally Sensitive Areas:

Environmentally Sensitive Areas (ESAs) are those natural features that would most likely be affected by the presence or discharge of a hazardous substance. As defined by N.J.A.C. 7:1E-1.8, ESAs include, but are not limited to, surface waters, wetlands, beaches, prime fishing areas, forest areas, dunes, Federal and State wilderness areas, sources of water supply, and habitat for endangered or threatened plant and animal species. For the purpose of this definition, surface waters include, without limitation, rivers, streams, creeks, ponds, lakes, reservoirs, and canals. Only those ESAs defined in N.J.A.C. 7:1E-1.8 that are within, immediately adjacent or the potential to be impacted by the Property are described in this Report.

The Property is located within the Upper Passaic River Watershed. The nearest surface water body is the Passaic River, located along the western portion of the Property. Additionally, there is a deciduous wooded wetland area directly southwest of the Property.

Contamination Migration Pathways to Environmentally Sensitive Receptors:

Direct contact with COPECs is limited by the presence of landscape, asphalt and concrete cover across the Property. The potential for surface water contamination from on-site operation is low. However, contaminant migration through groundwater has been identified as a possible migration pathway.

Findings and Conclusions:

Pursuant to N.J.A.C. 7:26E-3.11(a)4, continued ecological investigations shall be required during the remedial investigation, pursuant to N.J.A.C. 7E-4.7, whenever the baseline evaluation indicated the co-occurrence of COPECs, an environmentally sensitive area, and a migration pathway to facilitate the movement of COPECs to the environmentally sensitive area. EWMA's ecological evaluation of the Property identified several COPECs and groundwater as a contaminant migration pathway. The presence of the environmentally sensitive area on/adjacent to the Property supports the requirement to evaluate the necessity for further comprehensive ecological investigations. As such, further assessment of the ecological receptor is recommended.

8.6 Site Investigation Activities

Based on the findings provided in the preliminary assessment phase, EWMA's review of

the general Property information, research of available historical Property information, and a Property visit revealed that the following areas of concern identified at the *Property* are potentially contaminated, and thus additional investigation was required:

- AOC-1: Asbestos Landfill (Possible Pockets of Asbestos Fill throughout Property)
- AOC-2: Former Fuel Oil USTs
- AOC-3: Former Garage and Tank Area between Buildings 3 and 4
- AOC-4: Former Above Ground Storage Tanks between Buildings 3 &4
- AOC-5: Former Gas Pump and Suspected UST
- AOC-6: Former Tanks in Area of Building 2
- AOC-7: Former Oil Pit Area
- AOC-8: Discharge Area of Former Sluiceway
- AOC-9: Transformer House
- AOC-12: Former Rail Line and Equipment Testing Area
- AOC-13: Former Residential Structures/Dwellings
- AOC-20: Concrete
- AOC-21: Historic Fill

Prior to implementing field work, EWMA developed a site-specific Health and Safety Plan (HASP) for use by EWMA and its subcontractors. Prior to mobilizing, the New Jersey One-Call center was contacted to mark out utility lines. In addition, a geophysical survey was conducted using a combination of electromagnetic (EM), ground penetrating radar (GPR), and magnetic survey methods to assess selected areas for subsurface underground utilities, structures, and features, and to clear proposed boring locations with respect to underground obstructions. The survey was conducted by EnviroPhysics of Lawrenceville, New Jersey. A copy of the Geophysical survey report is provided in **Appendix 12**.

AOC-1: Asbestos Landfill (Possible Pockets of Asbestos Fill throughout Property)

The western portion of the Property contains a 4.5-acre fenced in area which was landfilled with asbestos containing materials. The landfill is closed and covered by a soil cap and vegetation (engineering control) that was designed and installed under the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA - Superfund) Program. The Property has been delisted as a Superfund site and is being monitored as part of a required Operations and Maintenance Plan.

No further action is required for the 4.5-acre fenced in area landfill area as it is addressed as a delisted NPL site and is monitored by the USEPA and NJDEP. Possible pockets of asbestos fill that may be encountered during redevelopment outside of the 4.5-acre fenced in area must be controlled and additional sampling should be

completed to confirm/deny asbestos content of these materials.

AOC-2: Former Fuel Oil USTs

Prior Investigation

Two 30,000-gallon No. 6 Fuel Oil USTs were cleaned and closed in place in 1993. At that time, sixteen soil samples were obtained around the tanks and analyzed for total petroleum hydrocarbons (TPH), and five soil samples were analyzed for PAHs. Asbestos debris and fill overlying silt was reported in most borings around the tanks. TPH was reported at concentrations ranging up to 2,950 mg/kg (parts per million (ppm)), and PAHs were reported at concentrations ranging up to 4,180 mg/kg (ppm). The concentrations did not exceed then-applicable soil cleanup criteria, however, a sheen and/or residual petroleum were observed in soil at several locations, particularly at the north end of the USTs. In light of these observations, NJDEP requested that a monitoring well be installed and sampled at the USTs. Groundwater was not present in the overburden zone, and in 1993 a bedrock monitoring well (MW-1) was installed to 29 feet bgs, from which a groundwater sample was obtained for analyses of VOC and BNs. Trichlorofluoromethane (Freon) was detected at 3.2 µg/l (parts per billion), cis 1,2-dichoroethene was detected at 1.4 µg/l, and TCE was detected at 34 µg/l in groundwater. The TCE concentration exceeds the NJDEP GWQS of 1 µg/l. Nevertheless, NJDEP issued a NFA determination for the USTs on November 28, 1994 which acknowledged the TCE and noted, "TCE is not a component of No. 6 fuel oil and the referenced facility is a Superfund Site, therefore, the noted contamination will be addressed in agreement with the United States Environmental Protection Agency (USEPA)." The well was later sealed, the NPL site delisted, and further response regarding TCE in bedrock aquifer apparently was not conducted.

Subsequently, in its Record of Decision (ROD) regarding the remedial action for the Superfund site, USEPA identified TCE and other groundwater contaminants in wells on-site within the asbestos landfill and concluded that the contaminants "…are not expected to impact public health and the environment," and noted that, "As documented in the summary of site risks section of this document [the ROD], the groundwater contamination at the site does not pose a significant risk to the public health and environment. Therefore, groundwater alternatives will not be addressed in this document." The ROD did require ongoing monitoring and institutional controls to restrict groundwater usage on-site, but further response to the TCE, apparently was not conducted or required. It is noted that the ROD referenced TCE concentrations in (overburden) groundwater as high as 6 ppb, but no reference was made to the data from the UST closure bedrock well in which TCE was detected at 35 µg/l. Apparently, the TCE in bedrock may not have been assessed.

EWMA Investigation

To further assess the condition at this area, EWMA installed and sampled four soil borings (AOC-2-1 through AOC-2-4) around the USTs after locating the USTs by geophysical survey. The borings were biased towards locations where past sampling noted residual contamination or sheen. Asbestos materials were observed in fill in three of the borings. One temporary well was installed in boring AOC-2-3, but groundwater was not present in soil or fill, and therefore no groundwater sample was obtained at that time. A petroleum odor and staining was observed in soil from boring AOC-2-3 and AOC-2-4 at the west side of the USTs. EPH analyses were conducted on three soil samples and results were each below the 1,700 mg/kg NJDEP ESC. One sample (AOC-2-4 at which oily staining was observed) was analyzed for fractionated EPH and results were entered into the NJDEP EPH Calculator. Output results using the calculator indicate that the EPH fractionated concentration is below residential and non-residential criteria. The EPH Soil Remediation Standard Calculator Outputs are included in **Appendix 10**. Samples AOC-2-3 and AOC-2-4 also were analyzed for VOCs and BNs. One BN compound, benzo(a)anthracene, was detected in each sample at 0.951 and 1.91 mg/kg respectively, exceeding the NJDEP default IGWSSL. No other compounds were detected above applicable criteria. Sample locations and analytical results above applicable standards are depicted on **Figure 4**. Soil sample results are summarized in **Table 1**.

The UST closure previously received a NFA from NJDEP and the results of EWMA's soil borings and sampling are consistent with conditions reported to NJDEP at the time of closure. Results of EWMA's investigation identified suspect ACM in fill and one compound at concentrations exceeding the NJDEP RDCSRS. Although the NFA for the UST closure is not likely to be reopened based on data from EWMA's samples, the ACM will require delineation and supplemental response measures. It is likely that these conditions could be addressed via a modification to the institutional (deed notice) and engineering (cover) controls. The 1993 soil borings reported residual product in several borings, however product was not evident during EWMA's site investigation. The NFA notwithstanding, if residual product or visually impacted soil is encountered during future development, the impacts will need to be removed and properly disposed or treated, and the extent of impacts delineated to current NJDEP SRS.

A bedrock groundwater monitoring well, MW-1, was installed adjacent to the fuel oil USTs as part of the UST closure activities. The 1994 groundwater quality results detected trichloroethylene (TCE) at 34 ppb, which exceeds the current NJDEP GWQS and VIGWSL. Further investigation was not conducted and the well was sealed/ abandoned as the TCE was not considered to be associated with the fuel oil USTs, and bedrock contamination apparently was not the focus of the Superfund site investigation. This concentration of TCE was not cited in the Record of Decision (ROD) issued by

United States Environmental Protection Agency (USEPA) for the Superfund site, and as such it may not have been considered fully as part of NPL action.

Another bedrock monitoring well, MW-901, (the only bedrock well installed as part of the Superfund investigation and the only other monitoring well outside the restricted asbestos landfill area) is located along Division Avenue and is believed to be hydrologically upgradient of the well at the USTs. EWMA sampled the upgradient well and TCE was not detected. This suggests that a source area for the TCE may be present on-site.

In order to assess the current groundwater quality within the former UST area, EWMA conducted a groundwater investigation that consisted of installation of a temporary well point (M-1R(11-30) and permanent bedrock monitoring well (MW-1R), as well as collection of groundwater quality samples. Groundwater sample results are shown on **Table 6**. The purge guides for this event are included as **Appendix 15**. A site plan depicting the monitoring well locations is proved as **Figure 4**. Findings from this investigation revealed the following:

- Groundwater within the saturated overburden zone on the Property is also impacted with chlorinated solvent concentrations (PCE and TCE) above their respective NJDEP GWQS, as revealed by the temporary well point sample (M-1R) collected from 11 to 30 feet bgs within AOC-2.

- Groundwater within the shattered weathered bedrock zone is also impacted with chlorinated solvent concentrations above their respective NJDEP GWQS and VIGWSL to the maximum depths of our investigation (50 feet bgs) as revealed during the 2015 groundwater sampling events from MW-1R. The well construction log, permit, record and Form B for MW-1R are included in **Appendix 13**.

AOC-3: Former Garage and Tank Area between Buildings 3 and 4

A historical site plan depicted a garage building and horizontal tank near the southwest corner of Building 3 in an area that currently is a paved, raised parking area. The geophysical survey identified likely reinforced concrete beneath the asphalt throughout this area and also noted an excavated area at which an asphalt patch is present. EWMA advanced five borings in this area including one within the asphalt patch and met refusal at three to four feet bgs on concrete in each boring. Fill material above the refusal depth contained suspected ACM debris. Other evidence of contamination was not observed or detected and no soil samples were collected for laboratory analyses. No further action is required for this AOC except that suspected ACM will be addressed

as noted in AOC-1, above. If evidence of a discharge is observed during any redevelopment of the Property, the appropriate number of soil and/or groundwater samples will be collected in compliance with NJDEP TRSRs to evaluate the impacts within this AOC.

AOC-4: Former Above Ground Storage Tanks between Buildings 3 and 4

A review of an undated Property Survey Map of the former National Gypsum Company facility depicts a tank farm containing six 5,000-gallon tanks with a berm area and adjacent to the south western side of Building 3. Additionally, during the aerial photograph review, the six 5,000-gallon ASTs are visible on the 1963 and 1970 aerial photographs in a similar location to that depicted on the survey map. The geophysical survey did not identify anomalies indicative of underground tanks in this area. EWMA advanced one soil boring to refusal (nine feet bgs) in the former tank area. Evidence of contamination was not observed. A soil sample was obtained from eight-foot depth (0.5' interval above the groundwater table) and submitted for analyses of VOCs, BNs, Pesticides, Herbicides, and EPH. No compounds were detected. The sample location is depicted on **Figure 4**. Analytical data are summarized on **Table 1**. Soil analytical reports prepared by IAL are provided in **Appendix 10**.

If evidence of a discharge is observed during any redevelopment of the Property, the appropriate number of soil and/or groundwater samples will be collected in compliance with NJDEP TRSRs to evaluate the impacts within this AOC.

AOC-5: Former Gas Pump and Suspected UST

A historical site plan depicted a gas pump on the east side of the Building 1. The pump is no longer present but the area is gravel-covered suggesting excavation and backfilling of a tank at this location. The geophysical survey of this area indicated that the gravel area overlies a likely tank void that had been backfilled, but did not identify anomalies to suggest that an UST remained in the survey area. A monitoring well is also present in the gravel area. The well is believed to be an upgradient, bedrock monitoring well (MW-901) installed as part of the Superfund investigation. The well is 50 feet deep and the groundwater surface is approximately 30 feet bgs. The well record and Form B for MW-901 is included in **Appendix 13**.

EWMA advanced two soil borings (AOC-5-1 and AOC-5-2) to refusal (eight and 9.5 feet bgs, respectively) in the suspected tank excavation area and obtained a soil sample from each at the base of the boring for analyses of VOCs and lead. EWMA converted a soil boring into a temporary well point, but groundwater was not encountered in the

overburden and the well point was dry. Trace levels of acetone and carbon disulfide, likely laboratory artifacts, were reported in one soil sample. No other VOCs were detected. Lead was reported at concentrations below applicable remediation standards and criteria. Based on these data and observations, further investigation is not recommended. Soil sample analytical results are provided on **Table 2**. The soil sample locations and analytical results above applicable standards are depicted on **Figure 4**.

In September 2013, a groundwater sample was obtained from the existing bedrock well (MW-901) for analyses of VOCs, BNs, PCBs, Pesticides and TAL metals. No concentrations were detected above their respective NJDEP GWQS, with the exception of three metals (aluminum, manganese, and sodium). These metals are likely naturally occurring elements and are not believed to be a site-related contaminant. Groundwater sample analytical results are provided on **Table 3**. The groundwater sample location and analytical results above applicable standards are depicted on **Figure 4**. Another groundwater sample (MW-109) was obtained from bedrock monitoring well MW-901 in 2015 for VOC analysis. No VOCs were detected above the NJDEP GWQS. The groundwater sample analytical results are provided on **Table 6**.

No further soil investigation is warranted for this AOC. Further groundwater investigation is warranted for this AOC. The dissolved metals are required to be monitored and a background investigation may be conducted. If the concentrations of the dissolved metals are confirmed to be above background concentrations then the appropriate remedial action may be required to establish a groundwater Classification Exception Area (CEA).

AOC-6: Former Tanks in Area of Building 2

A historical site plan depicted a rectangular feature labeled “Tanks” in an area currently covered by Building 2. No other information regarding this potential tank field was available. EWMA advanced one soil boring (6-1) in the suspected former tank area to refusal on bedrock at 19 feet bgs. Obvious evidence of impacted soil was not observed. A soil sample was obtained from the base of the boring for analyses of VOCs, PCBs, BNs, Pesticides, Herbicides, EPH and metals. No organic compounds were detected. Several metals (aluminum, beryllium, manganese, and nickel) were reported above NJDEP IGWSSL. None exceeded the NJDEP Direct Contract SRS. It is likely that the metals reflect background conditions and may potentially be addressed via background assessment or development of site specific criteria. Sample locations and analytical results above applicable standards are depicted on **Figure 4**. Sample analytical results are provided on **Table 2**.

Further soil investigation is warranted. An attempt will be made to create a site specific IGW Criteria for soil for this AOC.

AOC-7: Former Oil Pit Area

A historical site plan depicted two features identified as "oil pits" north of Building 1 in a current paved parking area. The geophysical survey identified two six-foot diameter subsurface features that are believed to be the former pits as well as an area of buried metal north of the pits. EWMA advanced four borings (AOC-7-1 through AOC-7-4) around the suspected oil pits to refusal on bedrock at depths ranging from eight to thirteen feet bgs. EWMA collected a soil sample from each boring near its base or at a depth at which staining or odor was observed and submitted them for analyses of EPH and/or fractionated EPH. Two soil samples also were analyzed for VOCs, BNs, PCBs, Pesticides, Herbicides, and metals. In addition, EWMA installed temporary well points in three borings (AOC-7-1, AOC-7-2, and AOC-7-3) and collected grab groundwater samples at two locations for analyses of VOC, BNs, Pesticide and Herbicide analyses. Separate phase product (oil) was observed on the water surface in well point AOC-7-4 and a sample was collected for "finger print" analyses. Analyses indicated the oil resembled a mixture of lubricating oils including hydraulic and mineral oil. Various reporting requirements will be required during the upcoming phases of remediation due to the light non-aqueous phase liquid (LNAPL) present in this AOC.

ACM was observed in shallower fill materials at boring AOC-7-3. Oily staining and odor was observed in borings AOC-7-2, AOC-7-3 and AOC-7-4 at depths of nine to 12 feet bgs. Results of soil sample analyses did not identify VOCs, BNs PCBs, Pesticides or Herbicides in the soil samples. Several metals (aluminum, beryllium, manganese, and nickel) were reported above NJDEP IGWSSL, but metals did not exceed the NJDEP DCSRS. Sample locations and analytical results above applicable standards are depicted on **Figure 4**. Sample analytical results are provided on **Table 2**.

EPH analysis was conducted on one soil sample (AOC-7-1) and results were well below the 1,700 mg/kg NJDEP Ecological Screening Criteria (ESC). Three others samples (AOC-7-2, AOC-7-3, and AOC-7-4) at which oily staining was observed were analyzed for fractionated EPH and the results were input into the NJDEP EPH calculator. Output results using the calculator indicate that the EPH fractionated concentrations exceeds NJDEP ESC and RDCSRC but are below NRDCSRC. The EPH Soil Remediation Standard Calculator Outputs are included in **Appendix 10**.

In order to assess the current groundwater quality within the former oil pit area, EWMA conducted a groundwater investigation that consisted of installation of two temporary

well points (AOC-7-2 and AOC7-4) and one permanent monitoring well (MW-2), as well as collection of groundwater quality samples. Groundwater sample results are shown on **Table 3** and **Table 6**. A site plan depicting the temporary well point and monitoring well location is proved as **Figure 4**. Findings from this investigation revealed that groundwater samples obtained from temporary well points AOC-7-2 and AOC-7-3 did not identify VOCs, Pesticides or Herbicides above the NJDEP GWQS. However, several PAHs that are consistent with lubricating oils were detected above GWQS as were several metals including lead, arsenic and others potential background metals. The groundwater sample collected from monitoring well MW-2 did not detect any VOCs above the NJDEP GWQS. The well construction log, permit, record and Form B for MW-2 are included in **Appendix 13**.

Investigation results indicate that subsurface structures likely associated with reported oil pits remain on-site, and that the area surrounding these features has been negatively impacted by residual lubricating oils. Asbestos debris also is present in fill. These structures are located in an area at which perched groundwater in the overburden was present and at which separate phase product (oil) was present floating on the groundwater surface. These features and conditions require further investigation and remediation including identifying and removing the structures, delineating and remediating the extent of soil and groundwater contamination, and removing the free product.

Further soil and groundwater investigation and action is warranted. Due to elevated EPH within AOC-7 and the presence of separate phase product an area of 50 ft. x 50 ft. x 12 ft. is proposed to be excavated. Post-excavation soil samples will be collected under the direction of a LSRP. The impacted soil will be disposed of at an offsite facility and the excavation will be backfilled with clean certified fill. Any suspected ACM encountered will be addressed as described in AOC-1, above.

AOC-8: Discharge Area of Former Sluiceway

A historical site plan depicted a sluiceway from Building 1 leading to a storm drain pipe that crossed beneath the area of Building 2 and discharged into the area now covered by the parking lot. The sluiceway alignment currently is located in parts of the site storm drain system that discharges to the west of the parking area. EWMA advanced one soil boring to refusal (13.5 feet bgs) in the former discharge area. Evidence of contamination was not observed. A soil sample was obtained from the base of the boring depth and submitted for analyses. No VOCs, BNs, Pesticides or Herbicides were detected. EPH was detected at 37 mg/kg, well below guidance values. Several metals (aluminum, beryllium, manganese, mercury, and nickel) were reported above

NJDEP IGWSSL. None exceeded the NJDEP DCSRS. It is possible that the mercury may be site related as phenyl mercuric acetate (PMA) reportedly was used in the past on-site manufacturing. Otherwise, the metals likely reflect background conditions and may potentially be addressed via background assessment or development of site specific IGWSSL. Sample locations and analytical results above applicable standards are depicted on **Figure 4.** Sample analytical results are provided on **Table 2 and 4**.

Further soil investigation is warranted. An attempt will be made to create a site-specific IGWSRS for the metals.

AOC-9: Transformer House

A small transformer house is located on the east side of Building 1. Two shallow soil samples were obtained from within the house adjacent to a pad-mounted transformer. Samples were analyzed for PCBs. No PCB concentrations were detected. Sample locations are depicted on **Figure 4**. Sample analytical results are provided on **Table 4**.

No further soil investigation is warranted for this AOC.

AOC-12: Former Rail Line and Equipment Testing Area

Four soil borings were advanced to four-foot depth along the area of the former railroad siding that ran along the west side of Building 1. Soil borings AOC-12-1 and AOC-12-2 were located at the south end of the siding, and AOC-12-3 and AOC-12-4 were located at the northern end of the siding. The south siding is along a loading dock where signs in the building indicate that pesticide application equipment was tested. A soil sample from each boring was analyzed for EPH, and one sample from the north and south ends of the siding (samples AOC-12-3 and AOC-12-2, respectively) also were analyzed for TCL VOC BNs, Pesticides, Herbicides, PCBs and TAL Metals.

EPH was reported at less than 40 mg/kg, well below the NJDEP EPH SRC. A trace amount of the VOC carbon disulfide, a likely laboratory artifact and not a site related compound, was reported in sample AOC-12-3 located at the northern end of the siding. Several BN compounds and PCBs were detected at concentrations below regulatory criteria in sample AOC-12-2 from the southern end of the rail siding. No VOCs, Pesticides or Herbicides were reported. Several metals (aluminum, beryllium and manganese) were reported above NJDEP IGWSSL. No metals exceeded the NJDEP DCSRS. Mercury also was detected in the southern sample, AOC-12-2. Mercury was reportedly used in past on-site manufacturing and may be associated with site activities. Otherwise, the metals likely reflect background conditions and potentially may be

addressed via background assessment or development of site specific IGWSSL. Sample locations and analytical results above applicable standards are depicted on **Figure 4**. Sample analytical results are provided on **Table 2** and **Table 4**.

Further soil investigation and action is warranted. An attempt will be made to create a site-specific IGWSRS for the metals.

AOC-13: Former Residential Structures/Dwellings

Several onsite structures identified as dwellings were depicted in historical documents. One was located in the area covered by Building 2, one was located northwest of Building 2, and two were located in the restricted (former landfill) area that was addressed as part of the delisted NPL site work. EWMA's geophysical survey included coverage of the area northwest of Building 2 which currently is a paved parking area. Evidence of the former dwellings was not identified and no subsurface anomalies suggestive of former tanks or other features were identified.

No further soil investigation is warranted for this AOC.

AOC-20: Concrete

To preliminarily assess impact to the buildings' concrete walls and floors, five concrete chip samples were collected and analyzed for EPH or fractionated EPH, and BNs, PCBs, and Metals, Samples were obtained from Building 1 in the former TIFA warehouse space and loading dock areas and from Imperial Metals former tenant space. Concrete chip samples also were collected from Building 2 at the former Sphinx Electroplating tenant space and current garage/warehouse area.

Results of sample analyses identified several BNs in each of the samples at concentrations below NJDEP most stringent standards. PCBs were detected in each sample, and in samples C-4 (former Imperial Metals) and C-5 (former Sphinx Electroplating), PCB concentrations exceeded NJDEP RDCSRS. Several pesticides were detected in each sample and in samples obtained from Building 1 concentrations of Beta-BHC, Gamma-BHC and dieldrin exceeded the NJDEP IGWSSL.

Several metals (aluminum, cadmium, manganese and mercury) were reported above NJDEP IGWSSL in each sample. The mercury detected in sample C-4 (former Imperial Metals) also exceeded the NJDEP RDCSRS. It is possible that the mercury may be site related as mercury was reportedly used in past on-site manufacturing.

EPH analyses were conducted on all the concrete samples. EPH was below the 1,700

mg/kg NJDEP ESC in one sample (C-1). Fractionated EPH analysis on the rest of the concrete samples reported concentrations above the 1,700 mg/kg NJDEP ESC. The fractionated EPH results were then entered into the NJDEP EPH Calculator. Output results using the calculator indicate that the EPH fractionated concentration is below residential and non-residential criteria. The EPH Soil Remediation Standard Calculator Outputs are included in **Appendix 10**. Sample locations and analytical results above applicable standards are depicted on **Figure 5**. Sample analytical results are provided on **Table 5**.

Results of concrete sample analyses indicates that concrete is not suitable for unrestricted use and should be characterized prior to demolition and disposal or reuse in accordance with NJDEP *Guidance for Characterization of Concrete and Clean Material Certification for Recycling*. It is likely that concrete could be suitable for on-site reuse as fill subject to use of institutional and engineering controls.

Additional investigation and action may be required at such time that the site is re-developed. If the site use remains the same and the concrete is not disturbed then no further investigation will be warranted.

AOC-21: Historic Fill

In order to confirm the presence/absence of historic fill material at the Property, soil borings were conducted in conjunction with the AOCs described above. Fill material including pieces of concrete and apparent pieces of discarded, suspect asbestos products (shingles, corrugated panels) was identified in the developed area of the site to depths ranging up to approximately five feet below ground surface (bgs). The fill containing suspect ACM was observed in borings at AOC-2, AOC-3, AOC-4, and AOC-7 located on the west side of Buildings 2 and 3 and on the north side of Building 1. These areas are currently below asphalt-pavement. The fill is underlain by reddish brown sandy silt and clay with little gravel extending to the top of bedrock which is reported by others to be red brown shale of the Towaco formation. Most borings were advanced to refusal, believed to be the top of bedrock, at depths ranging from 9 to 19 feet bgs.

The historic fill material is proposed to be left in place and will be addressed via institutional (site-wide Deed Notice and CEA/WRA) and engineering controls (i.e., asphalt, concrete caps and landscaping material). The current/proposed site features (i.e. concrete building footprints, landscaping, and asphalt pavement) will function as

engineering controls which will eliminate the likelihood of exposure of contaminants to the public and environment.

Suspected ACM within Building

EWMA retained Accredited Environmental Technologies, Inc. (AET) to perform an asbestos building survey of the four buildings located on-site. Asbestos Containing Material (ACM) is defined as materials containing more than one percent asbestos by weight. Friable ACMs are those that that can be easily crumbled, pulverized, or reduced to powder by hand pressure. The purpose of this survey was to assess the presence, location, and quantity of ACMs and Presumed Asbestos Containing Materials (PACM) throughout the buildings. AHERA-certified asbestos building inspectors conducted the survey under the coordination of EWMA.

The survey included a visual inspection of the subject structure to assess the presence, locations, and quantities of ACM and PACM within accessible locations made available during the time on-site. Bulk samples were collected from both friable and non-friable suspect asbestos containing materials. Samples were placed in sealed containers and labeled with an identifying code and submitted for analyses using Polarized Light Microscopy (PLM) per EPA Method 600-R-93-116 in AET's Environmental Science Laboratory AET's laboratory is certified by the National Institute of Standards and Technologies (NIST) and is also accredited by the American Industrial Hygiene Association. TEM Analysis was performed in the NIST Certified Laboratory of EMSL Analytical, Inc. located in Cinnaminson, New Jersey.

Survey results indicate ACMs are present in the following locations:

Building 1

- Approximately 16,200 square feet of corrugated transite ceiling panels in space 28.
- Approximately 60 square feet of transite wall panels on the east and west sides of the southeast area in space 28
- Approximately 240 square feet of transite wall panels in the 2nd floor lab in space 28
- Approximately 280 square feet of transite wall panels in the 2nd floor hall in space 28.
- Approximately 150 square feet of flat corrugated transite wall panels within space 4.
- Approximately 350 square feet of flat transite wall panels within space 4.

- Approximately 2500 square feet of 9x9 tan floor tile and associated mastic adhesive in the 2nd floor large middle room of Space 29.

Asbestos containing material was not identified within Buildings 2, 3 and 4. In addition:

- Sprayed-on fireproofing was not observed on the structural members of the subject buildings.
- Spray-applied or troweled-on decorative surfacing material was not observed on the walls or ceiling systems of the subject buildings.
- Asbestos was not confirmed in samples of the following: sheetrock partition walls and associated joint compound, acoustical ceiling tiles, resilient floor coverings in buildings 2 and 3, carpet adhesives, thermal system insulation, mortar associated with masonry walls, fire stopping putty, exterior stucco material, adhesive associated with vinyl cove base moldings, concrete expansion joints, and adhesives used to fasten wall and ceiling finishes.

The asbestos survey did not include destructive sampling to identify/sample materials above/inside solid ceilings or walls and/or below concrete or ceramic floors or below finished grade. Roofing materials were not samples and are considered PACM. EWMA recommends that if future renovation or demolition is considered the ACMs identified above should be removed by a licensed abatement contractor and disposed in accordance with USEPA, OSHA, NESHAPs and state and local regulations. In addition, the roofing material and roof flashing should also be considered asbestos containing material. Demolition activities which expose previously unidentified building materials in concealed areas must be controlled and suspended until additional sampling can be completed to confirm/deny asbestos content of these materials.

A copy of the asbestos survey report and laboratory analyses is provided in **Appendix 11**.

9. Summary of Site Investigation Findings

Soil/Source Areas – An exterior geophysical survey was conducted in an effort to locate previously unidentified underground storage tanks (USTs), unmarked buried utilities, or other buried metal objects over accessible exterior areas of the Property. In addition, a soil boring program was initiated to investigate potential areas of impacted soil associated with AOCs onsite. Findings from these two programs revealed the following:

- The geophysical survey located several subsurface structures believed to be two former "oil pits" reported north of Building 1. Soil borings and temporary well points identified a perched groundwater zone in soils at this location. Groundwater was not encountered in overburden at other locations investigated by EWMA. Separate phase oil was encountered floating on the water surface in temporary well points, several polycyclic aromatic hydrocarbons (PAHs) and metals were detected in groundwater at concentrations exceeding GWQS, and extractable petroleum hydrocarbons (EPH) were detected in soil samples at concentrations exceeding NJDEP RDCSRS. These features and conditions require further investigation and remediation including identifying and removing the structures, removing the free product, delineating the extent of soil and groundwater contamination, and remediating residual contamination in accordance with NJDEP requirements.

- Borings advanced in parking areas on the west side of Buildings 2 and 3 and north side of Building 1 encountered suspected asbestos debris (broken shingles and corrugated panels) in shallow fill. These locations are outside the restricted asbestos dump/landfill area that was addressed under the prior Superfund response actions. During future development a deed notice modification may need to be submitted and approved by NJDEP prior to commencement of intrusive activities. Special care will be required during soil handling to prevent exposure or release, and soil may not be suitable for reuse.

- Benzo(a)anthracene was detected above NJDEP IGWSSL in soil samples obtained adjacent to the closed-in-place fuel oil USTs. Prior investigation during 1993-1994 UST closure activities identified residual product in several borings, however NJDEP Granted a No Further Action (NFA) determination for the UST closure in 1998. Given the NFA, the recent results are unlikely to trigger a reopening of the UST case. Despite the NFA, if residual product is encountered during future development, the impacted soil will need to be removed and properly disposed of, and the extent of impact delineated to current NJDEP SRS.

- Several metals were identified in soil samples throughout the site at concentrations exceeding NJDEP IGWSSL. Various metals (aluminum, beryllium, manganese, and nickel) were reported in most soil samples above IGWSSL, but did not exceed the NJDEP DCSRS. They are common, naturally occurring elements and likely reflect background conditions. However, given their presence, they will require further assessment. It is likely that they can be addressed via background assessment or development of site specific IGWSSL. Mercury was also reported in two soil samples at concentrations exceeding NJDEP IGWSSL. It is possible that the mercury may be site-related as phenyl mercuric acetate (PMA) reportedly was used in past onsite manufacturing. Given the conditions, soil is not currently suitable for unrestricted use, but it is possible that the metals can be addressed by the development of site specific criteria.

Subsurface Conditions

- The majority of the site outside the restricted landfill area is covered by asphalt pavement or buildings. This developed area of the site is underlain by a layer of granular soil fill materials to depths ranging up to approximately five feet below ground surface (bgs). The fill included pieces of concrete and apparent pieces of discarded, suspect asbestos products (shingles, corrugated panels). The suspect ACM was observed in borings at AOC-2, AOC-3, AOC-4, and AOC-7 located on the west side of Buildings 2 and 3 and on the north side of Building 1. These areas are below asphalt-pavement. The fill is underlain by reddish brown sandy silt and clay with little gravel extending to the top of bedrock which is reported by others to be red brown shale of the Towaco formation. Most borings were advanced to refusal, believed to be the top of bedrock, at depths ranging from 9 to 19 feet bgs.

- Saturated soil was observed only in borings advanced north of Building 1 at the oil pits (AOC-7). At this location, groundwater was present in the overburden at approximate depth of 8 to 9 feet bgs. Two of the borings/temporary well points at the oil pits also had Light Non-aqueous Phase Liquid (free product -- separate phase oil) floating on the water surface or oil coating the well screen. Other borings and well points installed on-site did not encounter groundwater in the overburden. The groundwater at the oil pit area likely is within a localized perched water zone in the overburden. It is noted that as part of the NPL investigation, several monitoring wells were installed including one on the upland section of the site (MW-901) and six within the landfilled area west of the parking lot (MW-902 through MW-907). The upland well is believed to be screened in bedrock and the landfill wells are believed to be screened in overburden. A thin groundwater-bearing zone at the base of the overburden/fill layers is reported in the landfilled area. The well records for the monitoring wells installed as part of the NPL investigation are included in **Appendix 13**.

Groundwater

A bedrock groundwater monitoring well was installed adjacent to the fuel oil USTs as part of the UST closure activities. The 1994 groundwater quality results detected a trichloroethylene (TCE) at a concentration of 34 µg/l, which exceeds the NJDEP GWQS and VIGWSL. Further investigation was not conducted and the well was sealed/ abandoned as the TCE was not considered to be associated with the fuel oil USTs, and bedrock contamination apparently was not the focus of the Superfund site investigation. This concentration of TCE was not cited in the Record of Decision (ROD) issued by United States Environmental Protection Agency (USEPA) for the Superfund site, and as such it may not have been considered fully as part of NPL action. An additional bedrock monitoring well (the only bedrock well installed as part of the Superfund investigation and the only other monitoring well outside the restricted asbestos landfill area) is located along Division Avenue and is believed to be hydrologically upgradient of the well at the USTs. EWMA sampled the upgradient well and TCE was not detected. This suggests that a source area for the TCE may be present on-site.

EWMA conducted a groundwater investigation that consisted of installation of several temporary well points (M-1R, AOC-7-2 and AOC-7-4) and two permanent monitoring wells (MW-1R and MW-2), as well as collection of groundwater quality samples. Groundwater sample results are shown in **Table 3** and **Table 6**. A site plan depicting the monitoring well locations and exceedances are provided on **Figure 4**. Findings from this investigation revealed the following:

- Groundwater samples obtained from temporary well points AOC-7-2 and AOC-7-4 identified several PAHs that are consistent with lubricating oils as well as several metals including lead, arsenic and others potential background metals, above the NJDEP GWQS in the area of AOC-7.

- Groundwater within the saturated overburden zone on the Property is also impacted with chlorinated solvent concentrations (PCE and TCE) above their respective NJDEP GWQS, as revealed by the temporary well point sample (M-1R) collected from 11 to 30 feet bgs within AOC-2.

- Groundwater within the shattered weathered bedrock zone is also impacted with chlorinated solvent concentrations above their respective NJDEP GWQS and VIGWSL to the maximum depths of our investigation (50 feet bgs) as revealed during the 2015 groundwater sampling events from MW-1R. It should be noted

that since chlorinated solvents do not exceeded the VIGWSL in the overburden groundwater, a vapor intrusion investigation is not warranted at this time.

Asbestos/Building – An asbestos survey was conducted for the four on-site buildings. Findings from this investigation revealed the following:

- Concrete floors and walls were stained in places, and the buildings have up to 80 years of industrial use. Redevelopment of the site will require demolition of existing structures and NJDEP requires assessment of concrete prior to recycling and reuse. EWMA obtained several concrete chip samples to screen conditions. PCBs and mercury were detected in each sample, and exceeded the NJDEP RDCSRS in one or more locations. In addition several pesticides and metals were detected. Results of concrete sample analyses indicates that concrete is not suitable for unrestricted use and should be characterized prior to demolition and disposal or reuse in accordance with NJDEP Guidance for Characterization of Concrete and Clean Material Certification for Recycling.

- Asbestos was detected in transite panels, floor tile, and mastic in Building 1, and roofing components on-site are presumed to be asbestos-containing. Asbestos containing materials (ACM) should be properly removed prior to renovations or demolition work, and remaining ACM addressed under an Operations and Maintenance Plan.

9. Conclusion and Recommendations

Based on the results of the PA and SI phases, further investigation is necessary in the following eight AOCs that remain on the Property:

- AOC-2: Former Fuel Oil USTs
- AOC-4: Above Ground Storage Tanks between Buildings 3 and 4
- AOC-5: Former Gas Pump and Suspected UST
- AOC-6: Former Tanks in Area of Building 2
- AOC-7: Former Oil Pit Area
- AOC-8: Discharge Area of Former Sluiceway
- AOC-12: Former Rail Line and Equipment Testing Area
- AOC-20: Concrete
- AOC-21: Historic Fill

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Tables

TABLE 1
Summary of Soil Sample Analyses
Abandoned No. 6 Fuel Oil USTs (AOC-2) and Former 5,000 gallon Tanks (AOC-4)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-2-1				AOC-2-2				AOC-2-3				AOC-2-4				AOC-4			
Lab ID:	Residential	Non-Residential	Default IGW	09135-001				09135-002				09135-003				09135-004				09135-005			
Date Sampled:	SRS	SRS	Screening	09/16/2013				09/16/2013				09/16/2013				09/16/2013				09/16/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	14 - 14.5				14 - 14.5				11.5 - 12				10 - 10.5				7.5 - 8			
Volatiles (mg/Kg)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	**490**	**230000**	**39**	~		~	~	~		~	~	ND		0.136	0.086	ND		0.286	0.180	ND		0.00145	0.000812
Chloromethane	**4**	**12**	**NS**	~		~	~	~		~	~	ND		0.136	0.054	ND		0.286	0.114	ND		0.00145	0.000421
Vinyl chloride	**0.7**	**2**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.072**	ND		**0.286**	**0.151**	ND		0.00145	0.000566
Bromomethane	**25**	**59**	**0.04**	~		~	~	~		~	~	ND		**0.136**	**0.059**	ND		**0.286**	**0.123**	ND		0.00145	0.000696
Chloroethane	**220**	**1100**	**NS**	~		~	~	~		~	~	ND		0.136	0.061	ND		0.286	0.128	ND		0.00145	0.000537
Trichlorofluoromethane	**23000**	**340000**	**34**	~		~	~	~		~	~	ND		0.136	0.076	ND		0.286	0.160	ND		0.00145	0.000435
1,1-Dichloroethene	**11**	**150**	**0.008**	~		~	~	~		~	~	ND		**0.136**	**0.053**	ND		**0.286**	**0.111**	ND		0.00145	0.000595
Acetone	**70000**	**NS**	**19**	~		~	~	~		~	~	ND		0.272	0.075	ND		0.571	0.157	ND		0.00725	0.000798
Carbon disulfide	**7800**	**110000**	**6**	~		~	~	~		~	~	ND		0.136	0.063	ND		0.286	0.131	ND		0.00145	0.00045
Methylene chloride	**46**	**230**	**0.01**	~		~	~	~		~	~	ND		**0.272**	**0.270**	ND		**0.571**	**0.565**	ND		0.0029	0.00287
trans-1,2-Dichloroethene	**300**	**720**	**0.6**	~		~	~	~		~	~	ND		0.136	0.052	ND		0.286	0.108	ND		0.00145	0.000493
Methyl tert-butyl ether (MTBE)	**110**	**320**	**0.2**	~		~	~	~		~	~	ND		0.136	0.098	ND		**0.286**	**0.206**	ND		0.00145	0.000363
1,1-Dichloroethane	**8**	**24**	**0.2**	~		~	~	~		~	~	ND		0.136	0.040	ND		**0.286**	0.083	ND		0.00145	0.000435
cis-1,2-Dichloroethene	**230**	**560**	**0.3**	~		~	~	~		~	~	ND		0.136	0.037	ND		**0.286**	0.077	ND		0.00145	0.000406
2-Butanone (MEK)	**3100**	**44000**	**0.9**	~		~	~	~		~	~	ND		0.136	0.076	ND		0.286	0.160	ND		0.0029	0.000421
Bromochloromethane	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.136	0.038	ND		0.286	0.080	ND		0.00145	0.000363
Chloroform	**0.6**	**2**	**0.4**	~		~	~	~		~	~	ND		0.136	0.050	ND		**0.286**	0.106	ND		0.00145	0.000392
1,1,1-Trichloroethane	**160000**	**NS**	**0.3**	~		~	~	~		~	~	ND		0.136	0.045	ND		**0.286**	0.094	ND		0.00145	0.000377
Carbon tetrachloride	**2**	**4**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.049**	ND		**0.286**	**0.103**	ND		0.00145	0.000363
1,2-Dichloroethane (EDC)	**0.9**	**3**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.050**	ND		**0.286**	**0.106**	ND		0.00145	0.000319
Benzene	**2**	**5**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.034**	ND		**0.286**	**0.071**	ND		0.00145	0.000392
Trichloroethene	**3**	**10**	**0.01**	~		~	~	~		~	~	ND		**0.136**	**0.030**	ND		**0.286**	**0.063**	ND		0.00145	0.000493
1,2-Dichloropropane	**2**	**5**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.033**	ND		**0.286**	**0.068**	ND		0.00145	0.000377
1,4-Dioxane	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		27.2	2.59	ND		57.1	5.42	ND		0.290	0.016
Bromodichloromethane	**1**	**3**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.053**	ND		**0.286**	**0.111**	ND		0.00145	0.000305
cis-1,3-Dichloropropene	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.136	0.035	ND		0.286	0.074	ND		0.00145	0.000305
4-Methyl-2-pentanone (MIBK)	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.136	0.041	ND		0.286	0.086	ND		0.00145	0.000305
Toluene	**6300**	**91000**	**7**	~		~	~	~		~	~	ND		0.136	0.037	ND		0.286	0.077	ND		0.00145	0.000363
trans-1,3-Dichloropropene	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.136	0.035	ND		0.286	0.074	ND		0.00145	0.000319
1,1,2-Trichloroethane	**2**	**6**	**0.02**	~		~	~	~		~	~	ND		**0.136**	**0.059**	ND		**0.286**	**0.123**	ND		0.00145	0.000305
Tetrachloroethene	**43**	**1500**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.033**	ND		**0.286**	**0.068**	ND		0.00145	0.000363
2-Hexanone	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.136	0.034	ND		0.286	0.071	ND		0.00145	0.000392
Dibromochloromethane	**3**	**8**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.033**	ND		**0.286**	**0.068**	ND		0.00145	0.000305
1,2-Dibromoethane (EDB)	**0.008**	**0.04**	**0.005**	~		~	~	~		~	~	ND		**0.136**	**0.044**	ND		**0.286**	**0.091**	ND		0.00145	0.00029
Chlorobenzene	**510**	**7400**	**0.6**	~		~	~	~		~	~	ND		0.136	0.037	ND		0.286	0.077	ND		0.00145	0.000406
Ethylbenzene	**7800**	**110000**	**13**	~		~	~	~		~	~	ND		0.136	0.049	ND		0.286	0.103	ND		0.00145	0.000406
Total Xylenes	**12000**	**170000**	**19**	~		~	~	~		~	~	ND		0.272	0.090	ND		0.571	0.190	ND		0.0029	0.0012
Styrene	**90**	**260**	**3**	~		~	~	~		~	~	ND		0.136	0.054	ND		0.286	0.114	ND		0.00145	0.000319
Bromoform	**81**	**280**	**0.03**	~		~	~	~		~	~	ND		**0.272**	**0.033**	ND		**0.571**	**0.068**	ND		0.00145	0.000348
Isopropylbenzene	**NS**	**NS**	**NS**	~		~	~	~		~	~	0.049	J	0.136	0.044	ND		0.286	0.091	ND		0.00145	0.000421
1,1,2,2-Tetrachloroethane	**1**	**3**	**0.007**	~		~	~	~		~	~	ND		**0.136**	**0.035**	ND		**0.286**	**0.074**	ND		0.00145	0.000334
1,3-Dichlorobenzene	**5300**	**59000**	**19**	~		~	~	~		~	~	ND		0.136	0.037	ND		0.286	0.077	ND		0.00145	0.000348
1,4-Dichlorobenzene	**5**	**13**	**2**	~		~	~	~		~	~	ND		0.136	0.041	ND		0.286	0.086	ND		0.00145	0.00029
1,2-Dichlorobenzene	**5300**	**59000**	**17**	~		~	~	~		~	~	ND		0.136	0.034	ND		0.286	0.071	ND		0.00145	0.000406
1,2-Dibromo-3-chloropropane	**0.08**	**0.2**	**0.005**	~		~	~	~		~	~	ND		**0.272**	**0.083**	ND		**0.571**	**0.174**	ND		0.00145	0.00029
1,2,4-Trichlorobenzene	**73**	**820**	**0.7**	~		~	~	~		~	~	ND		0.136	0.054	ND		0.286	0.114	ND		0.00145	0.000377

TABLE 1
Summary of Soil Sample Analyses
Abandoned No. 6 Fuel Oil USTs (AOC-2) and Former 5,000 gallon Tanks (AOC-4)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-2-1				AOC-2-2				AOC-2-3				AOC-2-4				AOC-4			
Lab ID:	Residential	Non-Residential	Default IGW	09135-001				09135-002				09135-003				09135-004				09135-005			
Date Sampled:	SRS	SRS	Screening	09/16/2013				09/16/2013				09/16/2013				09/16/2013				09/16/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	14 - 14.5				14 - 14.5				11.5 - 12				10 - 10.5				7.5 - 8			
1,2,3-Trichlorobenzene	NS	NS	NS	~		~	~	~		~	~	ND		0.136	0.060	ND		0.286	0.126	ND		0.00145	0.000464
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	NS	~		~	~	~		~	~	ND		0.136	0.068	ND		0.286	0.143	ND		0.00145	0.000537
Methyl acetate	78000	NS	22	~		~	~	~		~	~	ND		0.136	0.082	ND		0.286	0.171	ND		0.00145	0.000319
Cyclohexane	NS	NS	NS	~		~	~	~		~	~	ND		0.272	0.052	ND		0.571	0.108	ND		0.00725	0.000566
Methylcyclohexane	NS	NS	NS	~		~	~	~		~	~	0.571		0.136	0.049	0.543	D	0.286	0.103	ND		0.00725	0.000522
1,3-Dichloropropene (cis- and trans	2	7	0.005	~		~	~	~		~	~	ND		**0.136**	**0.035**	ND		**0.286**	**0.074**	ND		0.00145	0.000319
TOTAL VO's:	NS	NS	NS	~		~	~	~		~	~	0.620	J		NA	0.543	D		NA	ND			NA
TOTAL TIC's:	NS	NS	NS	~		~	~	~		~	~	23.8			NA	40.7			NA	ND			NA
TOTAL VO's & TIC's:	NS	NS	NS	~		~	~	~		~	~	24.4	J		NA	41.2	D		NA	ND			NA
Semivolatiles - BN (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Benzaldehyde	6100	68000	NS	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Bis(2-chloroethyl) ether	0.4	2	0.2	~		~	~	~		~	~	ND		0.038	0.026	ND		0.041	0.029	ND		0.037	0.026
Bis(2-chloroisopropyl) ether	23	67	5	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
N-Nitrosodi-n-propylamine	0.2	0.3	0.2	~		~	~	~		~	~	ND		0.038	0.025	ND		0.041	0.027	ND		0.037	0.024
Acetophenone	2	5	3	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Hexachloroethane	12	48	0.2	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Nitrobenzene	5	14	0.2	~		~	~	~		~	~	ND		0.038	0.037	ND		0.041	0.040	ND		0.037	0.036
Isophorone	510	2000	0.2	~		~	~	~		~	~	ND		0.038	0.025	ND		0.041	0.027	ND		0.037	0.024
Bis(2-chloroethoxy) methane	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.032	ND		0.041	0.034	ND		0.037	0.031
Naphthalene	6	17	25	~		~	~	~		~	~	ND		0.038	0.023	0.061		0.041	0.025	ND		0.037	0.022
4-Chloroaniline	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.036	ND		0.041	0.039	ND		0.037	0.034
Hexachlorobutadiene	6	25	0.9	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Caprolactam	31000	340000	12	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
2-Methylnaphthalene	230	2400	8	~		~	~	~		~	~	0.133		0.038	0.031	ND		0.041	0.034	ND		0.037	0.030
Hexachlorocyclopentadiene	45	110	320	~		~	~	~		~	~	ND		0.038	0.025	ND		0.041	0.027	ND		0.037	0.024
1,1'-Biphenyl	61	240	140	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
2-Chloronaphthalene	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.036	ND		0.041	0.039	ND		0.037	0.034
2-Nitroaniline	39	23000	NS	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Dimethyl phthalate	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
2,6-Dinitrotoluene	0.7	3	NS	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Acenaphthylene	NS	300000	NS	~		~	~	~		~	~	0.029	J	0.038	0.026	0.086		0.041	0.029	ND		0.037	0.026
3-Nitroaniline	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.031	ND		0.041	0.034	ND		0.037	0.030
Acenaphthene	3400	37000	110	~		~	~	~		~	~	0.167		0.038	0.030	0.490		0.041	0.033	ND		0.037	0.029
2,4-Dinitrotoluene	120	1400	0.3	~		~	~	~		~	~	ND		0.038	0.025	ND		0.041	0.027	ND		0.037	0.024
Dibenzofuran	NS	NS	NS	~		~	~	~		~	~	0.146		0.038	0.023	0.211		0.041	0.025	ND		0.037	0.022
Diethyl phthalate	49000	550000	88	~		~	~	~		~	~	ND		0.038	0.028	ND		0.041	0.030	ND		0.037	0.027
Fluorene	2300	24000	170	~		~	~	~		~	~	0.105		0.038	0.023	0.343		0.041	0.025	ND		0.037	0.022
4-Chlorophenyl phenyl ether	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
4-Nitroaniline	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.031	ND		0.041	0.034	ND		0.037	0.030
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
N-Nitrosodiphenylamine	99	390	0.4	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
4-Bromophenyl phenyl ether	NS	NS	NS	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Hexachlorobenzene	0.3	1	0.2	~		~	~	~		~	~	ND		0.038	0.030	ND		0.041	0.033	ND		0.037	0.029
Atrazine	210	2400	0.2	~		~	~	~		~	~	ND		0.038	0.026	ND		0.041	0.029	ND		0.037	0.026
Phenanthrene	NS	300000	NS	~		~	~	~		~	~	1.04		0.038	0.025	1.65		0.041	0.027	ND		0.037	0.024
Anthracene	17000	30000	2400	~		~	~	~		~	~	0.369		0.038	0.038	0.949		0.041	0.041	ND		0.037	0.037

TABLE 1
Summary of Soil Sample Analyses
Abandoned No. 6 Fuel Oil USTs (AOC-2) and Former 5,000 gallon Tanks (AOC-4)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-2-1				AOC-2-2				AOC-2-3				AOC-2-4				AOC-4			
Lab ID:	Residential	Non-Residential	Default IGW	09135-001				09135-002				09135-003				09135-004				09135-005			
Date Sampled:	SRS	SRS	Screening	09/16/2013				09/16/2013				09/16/2013				09/16/2013				09/16/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	14 - 14.5				14 - 14.5				11.5 - 12				10 - 10.5				7.5 - 8			
Carbazole	24	96	NS	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Di-n-butyl phthalate	6100	68000	760	~		~	~	~		~	~	ND		0.038	0.034	ND		0.041	0.037	ND		0.037	0.033
Fluoranthene	2300	24000	1300	~		~	~	~		~	~	0.471		0.038	0.023	1.34		0.041	0.025	ND		0.037	0.022
Pyrene	1700	18000	840	~		~	~	~		~	~	1.92		0.038	0.028	4.89		0.041	0.030	ND		0.037	0.027
Butyl benzyl phthalate	1200	14000	230	~		~	~	~		~	~	ND		0.038	0.024	ND		0.041	0.026	ND		0.037	0.023
3,3'-Dichlorobenzidine	1	4	0.2	~		~	~	~		~	~	ND		0.038	0.026	ND		0.041	0.029	ND		0.037	0.026
Benzo[a]anthracene	5	17	0.8	~		~	~	~		~	~	**0.951**		0.038	0.036	**1.91**		0.041	0.039	ND		0.037	0.035
Chrysene	450	1700	80	~		~	~	~		~	~	1.04		0.038	0.026	2.40		0.041	0.028	ND		0.037	0.025
Bis(2-ethylhexyl) phthalate	35	140	1200	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Di-n-octyl phthalate	2400	27000	3300	~		~	~	~		~	~	ND		0.038	0.034	ND		0.041	0.037	ND		0.037	0.033
Benzo[b]fluoranthene	5	17	2	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Benzo[k]fluoranthene	45	170	25	~		~	~	~		~	~	ND		0.038	0.036	ND		0.041	0.039	ND		0.037	0.034
Benzo[a]pyrene	0.5	2	0.2	~		~	~	~		~	~	ND		0.038	0.023	ND		0.041	0.025	ND		0.037	0.022
Indeno[1,2,3-cd]pyrene	5	17	7	~		~	~	~		~	~	ND		0.038	0.025	ND		0.041	0.027	ND		0.037	0.024
Dibenz[a,h]anthracene	0.5	2	0.8	~		~	~	~		~	~	ND		0.038	0.028	ND		0.041	0.030	ND		0.037	0.027
Benzo[g,h,i]perylene	380000	30000	NS	~		~	~	~		~	~	ND		0.038	0.034	ND		0.041	0.037	ND		0.037	0.033
Dinitrotoluene (2,4- and 2,6-)	0.7	3	0.2	~		~	~	~		~	~	ND		0.038	0.025	ND		0.041	0.027	ND		0.037	0.024
TOTAL BN'S:	NS	NS	NS	~		~	~	~		~	~	6.37	J		NA	14.3			NA	ND			NA
TOTAL TIC's:	NS	NS	NS	~		~	~	~		~	~	54.8			NA	80.8			NA	ND			NA
TOTAL BN'S & TIC's:	NS	NS	NS	~		~	~	~		~	~	61.2	J		NA	95.1			NA	ND			NA

TABLE 1
Summary of Soil Sample Analyses
Abandoned No. 6 Fuel Oil USTs (AOC-2) and Former 5,000 gallon Tanks (AOC-4)
50 Division Avenue, Millington, New Jersey

Sample #: / Lab ID: / Date Sampled: / Depth (ft):	NJDEP Soil Remediation Standards			AOC-2-1 09135-001 09/16/2013 14 - 14.5				AOC-2-2 09135-002 09/16/2013 14 - 14.5				AOC-2-3 09135-003 09/16/2013 11.5 - 12				AOC-2-4 09135-004 09/16/2013 10 - 10.5				AOC-4 09135-005 09/16/2013 7.5 - 8			
Pesticides (mg/Kg)	**Residential SRS (mg/Kg)**	**Non-Residential SRS (mg/Kg)**	**Default IGW Screening Level (mg/Kg)**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
beta-BHC	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
gamma-BHC (Lindane)	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
delta-BHC	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Heptachlor	0.1	0.7	0.5	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Aldrin	0.04	0.2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Heptachlor epoxide	0.07	0.3	0.01	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Endosulfan I	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
4,4'-DDE	2	9	18	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Dieldrin	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Endrin	23	340	1	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Endosulfan II	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
4,4'-DDD	3	13	4	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Endrin aldehyde	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Endosulfan sulfate	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
4,4'-DDT	2	8	11	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Endrin ketone	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Methoxychlor	390	5700	160	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
alpha-Chlordane	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
gamma-Chlordane	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Toxaphene	0.6	3	0.3	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00448	0.00215
Endosulfan (I and II)	470	6800	4	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Chlordane (alpha and gamma)	0.2	1	0.05	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.000358	0.000179
Herbicides (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dalapon	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.018	0.00714
Dicamba	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.018	0.00714
2,4-D	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.018	0.00714
2,4,5-TP (Silvex)	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.018	0.00714
2,4,5-T	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.018	0.00714
2,4-DB	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.018	0.00714
Dinoseb	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.018	0.00714
NJ-EPH-C40 (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C40	NS	NS	NS	ND		41.0	10.2	ND		38.2	9.55	684		40.9	10.2	~		~	~	ND		39.3	9.84
NJ-EPH-Fractionated (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C12 Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	46.2		14.6	7.28	~		~	~
C12-C16 Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	163		9.70	7.28	~		~	~
C16-C21 Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	362		14.6	4.85	~		~	~
C21-C40 Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	748		48.5	4.85	~		~	~
Total Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	1320		48.5	7.28	~		~	~
C10-C12 Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		9.70	4.85	~		~	~
C12-C16 Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	59.8		14.6	4.85	~		~	~
C16-C21 Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	463		24.3	4.85	~		~	~
C21-C36 Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	708		38.8	4.85	~		~	~
Total Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	1230		38.8	4.85	~		~	~
Total NJ-EPH	NS	NS	NS	~		~	~	~		~	~	~		~	~	2550		48.5	7.28	~		~	~

TABLE 1
Summary of Soil Sample Analyses
Abandoned No. 6 Fuel Oil USTs (AOC-2) and Former 5,000 gallon Tanks (AOC-4)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-2-1	AOC-2-2	AOC-2-3	AOC-2-4	AOC-4
Lab ID:	Residential	Non-Residential	Default IGW	09135-001	09135-002	09135-003	09135-004	09135-005
Date Sampled:	SRS	SRS	Screening	09/16/2013	09/16/2013	09/16/2013	09/16/2013	09/16/2013
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	14 - 14.5	14 - 14.5	11.5 - 12	10 - 10.5	7.5 - 8

Notes:

Shaded results exceed the NJDEP Default Impact to Groundwater Soil Screening Levels
Shaded results exceed the NJDEP Residential Soil Remediation Standards
Shaded results exceed the NJDEP Non-Residential Soil Remediation Standards
BOLD RL = Reporting limit exceeds applicable standard.
BOLD MDL = Method detection limit exceeds applicable standard.
NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
D = The compound was reported from the Diluted analysis

TABLE 2
Summary of Soil Sample Analyses
Former Tank Area Below Bldg 2 (AOC 6),
Oil Pits (AOC-7), Sluiceway Discharge (AOC 8), and Southern Rail Siding (AOC-12)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-5-1				AOC-5-2				AOC-7-1				AOC-7-2				AOC-7-3				AOC-7-4				AOC-8				AOC-12-1				AOC-12-2				AOC-6			
Lab ID:	Residential	Non-Residential	Default IGW	09197-001				09197-002				09197-003				09197-004				09197-005				09197-006				09197-007				09197-008				09197-009				09197-010			
Date Sampled:	SRS	SRS	Screening	09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	9 - 9.5				7.5 - 8				8 - 8.5				11 - 11.5				9.5 - 10				9.5 - 10				12.5 - 13				1.5 - 2				3.5 - 4				18.5 - 19			
Volatiles (mg/Kg)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	**490**	**230000**	**39**	ND		0.00138	0.000773	ND		0.00137	0.000767	~		~	~	ND		0.063	0.040	ND		0.00137	0.000767	~		~	~	ND		0.00131	0.000734	~		~	~	ND		0.00145	0.000812	ND		0.00145	0.000812
Chloromethane	**4**	**12**	**NS**	ND		0.00138	0.0004	ND		0.00137	0.000397	~		~	~	ND		0.063	0.025	ND		0.00137	0.000397	~		~	~	ND		0.00131	0.00038	~		~	~	ND		0.00145	0.000421	ND		0.00145	0.000421
Vinyl chloride	**0.7**	**2**	**0.005**	ND		0.00138	0.000538	ND		0.00137	0.000534	~		~	~	ND		**0.063**	**0.034**	ND		0.00137	0.000534	~		~	~	ND		0.00131	0.000511	~		~	~	ND		0.00145	0.000566	ND		0.00145	0.000566
Bromomethane	**25**	**59**	**0.04**	ND		0.00138	0.000662	ND		0.00137	0.000658	~		~	~	ND		**0.063**	0.027	ND		0.00137	0.000658	~		~	~	ND		0.00131	0.000629	~		~	~	ND		0.00145	0.000696	ND		0.00145	0.000696
Chloroethane	**220**	**1100**	**NS**	ND		0.00138	0.000511	ND		0.00137	0.000507	~		~	~	ND		0.063	0.029	ND		0.00137	0.000507	~		~	~	ND		0.00131	0.000485	~		~	~	ND		0.00145	0.000537	ND		0.00145	0.000537
Trichlorofluoromethane	**23000**	**340000**	**34**	ND		0.00138	0.000414	ND		0.00137	0.000411	~		~	~	ND		0.063	0.036	ND		0.00137	0.000411	~		~	~	ND		0.00131	0.000393	~		~	~	ND		0.00145	0.000435	ND		0.00145	0.000435
1,1-Dichloroethene	**11**	**150**	**0.008**	ND		0.00138	0.000566	ND		0.00137	0.000562	~		~	~	ND		**0.063**	**0.025**	ND		0.00137	0.000562	~		~	~	ND		0.00131	0.000537	~		~	~	ND		0.00145	0.000595	ND		0.00145	0.000595
Acetone	**70000**	**NS**	**19**	ND		0.0069	0.000759	0.017		0.00685	0.000754	~		~	~	ND		0.127	0.035	ND		0.00685	0.000754	~		~	~	ND		0.00655	0.000721	~		~	~	ND		0.00725	0.000798	ND		0.00725	0.000798
Carbon disulfide	**7800**	**110000**	**6**	ND		0.00138	0.000428	0.00114	J	0.00137	0.000425	~		~	~	ND		0.063	0.029	ND		0.00137	0.000425	~		~	~	ND		0.00131	0.000406	~		~	~	ND		0.00145	0.00045	ND		0.00145	0.00045
Methylene chloride	**46**	**230**	**0.01**	ND		0.00276	0.00273	ND		0.00274	0.00271	~		~	~	ND		**0.127**	**0.125**	ND		0.00274	0.00271	~		~	~	ND		0.00262	0.00259	~		~	~	ND		0.0029	0.00287	ND		0.0029	0.00287
trans-1,2-Dichloroethene	**300**	**720**	**0.6**	ND		0.00138	0.000469	ND		0.00137	0.000466	~		~	~	ND		0.063	0.024	ND		0.00137	0.000466	~		~	~	ND		0.00131	0.000445	~		~	~	ND		0.00145	0.000493	ND		0.00145	0.000493
Methyl tert-butyl ether (MTBE)	**110**	**320**	**0.2**	ND		0.00138	0.000345	ND		0.00137	0.000343	~		~	~	ND		0.063	0.046	ND		0.00137	0.000343	~		~	~	ND		0.00131	0.000328	~		~	~	ND		0.00145	0.000363	ND		0.00145	0.000363
1,1-Dichloroethane	**8**	**24**	**0.2**	ND		0.00138	0.000414	ND		0.00137	0.000411	~		~	~	ND		0.063	0.018	ND		0.00137	0.000411	~		~	~	ND		0.00131	0.000393	~		~	~	ND		0.00145	0.000435	ND		0.00145	0.000435
cis-1,2-Dichloroethene	**230**	**560**	**0.3**	ND		0.00138	0.000386	ND		0.00137	0.000384	~		~	~	ND		0.063	0.017	ND		0.00137	0.000384	~		~	~	ND		0.00131	0.000367	~		~	~	ND		0.00145	0.000406	ND		0.00145	0.000406
2-Butanone (MEK)	**3100**	**44000**	**0.9**	ND		0.00276	0.0004	ND		0.00274	0.000397	~		~	~	ND		0.063	0.036	ND		0.00274	0.000397	~		~	~	ND		0.00262	0.00038	~		~	~	ND		0.0029	0.000421	ND		0.0029	0.000421
Bromochloromethane	**NS**	**NS**	**NS**	ND		0.00138	0.000345	ND		0.00137	0.000343	~		~	~	ND		0.063	0.018	ND		0.00137	0.000343	~		~	~	ND		0.00131	0.000328	~		~	~	ND		0.00145	0.000363	ND		0.00145	0.000363
Chloroform	**0.6**	**2**	**0.4**	ND		0.00138	0.000373	ND		0.00137	0.00037	~		~	~	ND		0.063	0.023	ND		0.00137	0.00037	~		~	~	ND		0.00131	0.000354	~		~	~	ND		0.00145	0.000392	ND		0.00145	0.000392
1,1,1-Trichloroethane	**160000**	**NS**	**0.3**	ND		0.00138	0.000359	ND		0.00137	0.000356	~		~	~	ND		0.063	0.021	ND		0.00137	0.000356	~		~	~	ND		0.00131	0.000341	~		~	~	ND		0.00145	0.000377	ND		0.00145	0.000377
Carbon tetrachloride	**2**	**4**	**0.005**	ND		0.00138	0.000345	ND		0.00137	0.000343	~		~	~	ND		**0.063**	**0.023**	ND		0.00137	0.000343	~		~	~	ND		0.00131	0.000328	~		~	~	ND		0.00145	0.000363	ND		0.00145	0.000363
1,2-Dichloroethane (EDC)	**0.9**	**3**	**0.005**	ND		0.00138	0.000304	ND		0.00137	0.000301	~		~	~	ND		**0.063**	**0.023**	ND		0.00137	0.000301	~		~	~	ND		0.00131	0.000288	~		~	~	ND		0.00145	0.000319	ND		0.00145	0.000319
Benzene	**2**	**5**	**0.005**	ND		0.00138	0.000373	ND		0.00137	0.00037	~		~	~	ND		**0.063**	**0.016**	ND		0.00137	0.00037	~		~	~	ND		0.00131	0.000354	~		~	~	ND		0.00145	0.000392	ND		0.00145	0.000392
Trichloroethene	**3**	**10**	**0.01**	ND		0.00138	0.000469	ND		0.00137	0.000466	~		~	~	ND		**0.063**	**0.014**	ND		0.00137	0.000466	~		~	~	ND		0.00131	0.000445	~		~	~	ND		0.00145	0.000493	ND		0.00145	0.000493
1,2-Dichloropropane	**2**	**5**	**0.005**	ND		0.00138	0.000359	ND		0.00137	0.000356	~		~	~	ND		**0.063**	**0.015**	ND		0.00137	0.000356	~		~	~	ND		0.00131	0.000341	~		~	~	ND		0.00145	0.000377	ND		0.00145	0.000377
1,4-Dioxane	**NS**	**NS**	**NS**	ND		0.276	0.016	ND		0.274	0.016	~		~	~	ND		12.7	1.20	ND		0.274	0.015	~		~	~	ND		0.262	0.015	~		~	~	ND		0.290	0.016	ND		0.290	0.016
Bromodichloromethane	**1**	**3**	**0.005**	ND		0.00138	0.00029	ND		0.00137	0.000288	~		~	~	ND		**0.063**	**0.025**	ND		0.00137	0.000288	~		~	~	ND		0.00131	0.000275	~		~	~	ND		0.00145	0.000305	ND		0.00145	0.000305
cis-1,3-Dichloropropene	**NS**	**NS**	**NS**	ND		0.00138	0.00029	ND		0.00137	0.000288	~		~	~	ND		0.063	0.016	ND		0.00137	0.000288	~		~	~	ND		0.00131	0.000275	~		~	~	ND		0.00145	0.000305	ND		0.00145	0.000305
4-Methyl-2-pentanone (MIBK)	**NS**	**NS**	**NS**	ND		0.00138	0.00029	ND		0.00137	0.000288	~		~	~	ND		0.063	0.019	ND		0.00137	0.000288	~		~	~	ND		0.00131	0.000275	~		~	~	ND		0.00145	0.000305	ND		0.00145	0.000305
Toluene	**6300**	**91000**	**7**	ND		0.00138	0.000345	ND		0.00137	0.000343	~		~	~	ND		0.063	0.017	ND		0.00137	0.000343	~		~	~	ND		0.00131	0.000328	~		~	~	ND		0.00145	0.000363	ND		0.00145	0.000363
trans-1,3-Dichloropropene	**NS**	**NS**	**NS**	ND		0.00138	0.000304	ND		0.00137	0.000301	~		~	~	ND		0.063	0.016	ND		0.00137	0.000301	~		~	~	ND		0.00131	0.000288	~		~	~	ND		0.00145	0.000319	ND		0.00145	0.000319
1,1,2-Trichloroethane	**2**	**6**	**0.02**	ND		0.00138	0.00029	ND		0.00137	0.000288	~		~	~	ND		**0.063**	**0.027**	ND		0.00137	0.000288	~		~	~	ND		0.00131	0.000275	~		~	~	ND		0.00145	0.000305	ND		0.00145	0.000305
Tetrachloroethene	**43**	**1500**	**0.005**	ND		0.00138	0.000345	ND		0.00137	0.000343	~		~	~	ND		**0.063**	**0.015**	ND		0.00137	0.000343	~		~	~	ND		0.00131	0.000328	~		~	~	ND		0.00145	0.000363	ND		0.00145	0.000363
2-Hexanone	**NS**	**NS**	**NS**	ND		0.00138	0.000373	ND		0.00137	0.00037	~		~	~	ND		0.063	0.016	ND		0.00137	0.00037	~		~	~	ND		0.00131	0.000354	~		~	~	ND		0.00145	0.000392	ND		0.00145	0.000392
Dibromochloromethane	**3**	**8**	**0.005**	ND		0.00138	0.00029	ND		0.00137	0.000288	~		~	~	ND		**0.063**	**0.015**	ND		0.00137	0.000288	~		~	~	ND		0.00131	0.000288	~		~	~	ND		0.00145	0.000305	ND		0.00145	0.000305
1,2-Dibromoethane (EDB)	**0.008**	**0.04**	**0.005**	ND		0.00138	0.000276	ND		0.00137	0.000274	~		~	~	ND		**0.063**	**0.020**	ND		0.00137	0.000274	~		~	~	ND		0.00131	0.000262	~		~	~	ND		0.00145	0.00029	ND		0.00145	0.00029
Chlorobenzene	**510**	**7400**	**0.6**	ND		0.00138	0.000386	ND		0.00137	0.000384	~		~	~	ND		0.063	0.017	ND		0.00137	0.000384	~		~	~	ND		0.00131	0.000367	~		~	~	ND		0.00145	0.000406	ND		0.00145	0.000406
Ethylbenzene	**7800**	**110000**	**13**	ND		0.00138	0.000386	ND		0.00137	0.000384	~		~	~	ND		0.063	0.023	ND		0.00137	0.000384	~		~	~	ND		0.00131	0.000367	~		~	~	ND		0.00145	0.000406	ND		0.00145	0.000406
Total Xylenes	**12000**	**170000**	**19**	ND		0.00276	0.0011	ND		0.00274	0.0011	~		~	~	ND		0.127	0.042	ND		0.00274	0.0011	~		~	~	ND		0.00262	0.001	~		~	~	ND		0.0029	0.0012	ND		0.0029	0.0012
Styrene	**90**	**260**	**3**	ND		0.00138	0.000304	ND		0.00137	0.000301	~		~	~	ND		0.063	0.025	ND		0.00137	0.000301	~		~	~	ND		0.00131	0.000288	~		~	~	ND		0.00145	0.000319	ND		0.00145	0.000319
Bromoform	**81**	**280**	**0.03**	ND		0.00138	0.000331	ND		0.00137	0.000329	~		~	~	ND		**0.063**	0.015	ND		0.00137	0.000329	~		~	~	ND		0.00131	0.000314	~		~	~	ND		0.00145	0.000348	ND		0.00145	0.000348
Isopropylbenzene	**NS**	**NS**	**NS**	ND		0.00138	0.0004	ND		0.00137	0.000397	~		~	~	ND		0.063	0.020	ND		0.00137	0.000397	~		~	~	ND		0.00131	0.00038	~		~	~	ND		0.00145	0.000421	ND		0.00145	0.000421
1,1,2,2-Tetrachloroethane	**1**	**3**	**0.007**	ND		0.00138	0.000317	ND		0.00137	0.000315	~		~	~	ND		**0.063**	**0.016**	ND		0.00137	0.000315	~		~	~	ND		0.00131	0.000301	~		~	~	ND		0.00145	0.000334	ND		0.00145	0.000334
1,3-Dichlorobenzene	**5300**	**59000**	**19**	ND		0.00138	0.000331	ND		0.00137	0.000329	~		~	~	ND		0.063	0.017	ND		0.00137	0.000329	~		~	~	ND		0.00131	0.000314	~		~	~	ND		0.00145	0.000348	ND		0.00145	0.000348
1,4-Dichlorobenzene	**5**	**13**	**2**	ND		0.00138	0.000276	ND		0.00137	0.000274	~		~	~	ND		0.063	0.019	ND		0.00137	0.000274	~		~	~	ND		0.00131	0.000262	~		~	~	ND		0.00145	0.00029	ND		0.00145	0.00029
1,2-Dichlorobenzene	**5300**	**59000**	**17**	ND		0.00138	0.000386	ND		0.00137	0.000384	~		~	~	ND		0.063	0.016	ND		0.00137	0.000384	~		~	~	ND		0.00131	0.000367	~		~	~	ND		0.00145	0.000406	ND		0.00145	0.000406
1,2-Dibromo-3-chloropropane	**0.08**	**0.2**	**0.005**	ND		0.00138	0.000276	ND		0.00137	0.000274	~		~	~	ND		**0.127**	**0.039**	ND		0.00137	0.000274	~		~	~	ND		0.00131	0.000262	~		~	~	ND		0.00145	0.00029	ND		0.00145	0.00029
1,2,4-Trichlorobenzene	**73**	**820**	**0.7**	ND		0.00138	0.000359	ND		0.00137	0.000356	~		~	~	ND		0.063	0.025	ND		0.00137	0.000356	~		~	~	ND		0.00131	0.000341	~		~	~	ND		0.00145	0.000377	ND		0.00145	0.000377
1,2,3-Trichlorobenzene	**NS**	**NS**	**NS**	ND		0.00138	0.000442	ND		0.00137	0.000438	~		~	~	ND		0.063	0.028	ND		0.00137	0.000438	~		~	~	ND		0.00131	0.000419	~		~	~	ND		0.00145	0.000464	ND		0.00145	0.000464
1,1,2-Trichloro-1,2,2-trifluoroethane	**NS**	**NS**	**NS**	ND		0.00138	0.000511	ND		0.00137	0.000507	~		~	~	ND		0.063	0.032	ND		0.00137	0.000507	~		~	~	ND		0.00131	0.000485	~		~	~	ND		0.00145	0.000537	ND		0.00145	0.000537
Methyl acetate	**78000**	**NS**	**22**	ND		0.00138	0.000304	ND		0.00137	0.000301	~		~	~	ND		0.063	0.038	ND		0.00137	0.000301	~		~	~	ND		0.00131	0.000288	~		~	~	ND		0.00145	0.000319	ND		0.00145	0.000319
Cyclohexane	**NS**	**NS**	**NS**	ND		0.0069	0.000538	ND		0.00685	0.000534	~		~	~	ND		0.063	0.024	ND		0.00685	0.000534	~		~	~	ND		0.00655	0.000511	~		~	~	ND		0.00725	0.000566	ND		0.00725	0.000566
Methylcyclohexane	**NS**	**NS**	**NS**	ND		0.0069	0.000497	ND		0.00685	0.000493	~		~	~	ND		0.063	0.023	ND		0.00685	0.000493	~		~	~	ND		0.00655	0.000472	~		~	~	ND		0.00725	0.000522	ND		0.00725	0.000522
1,3-Dichloropropene (cis- and trans-	**2**	**7**	**0.005**	ND		0.00138	0.000304	ND		0.00137	0.000301	~		~	~	ND		**0.063**	**0.016**	ND		0.00137	0.000301	~		~	~	ND		0.00131	0.000288	~		~	~	ND		0.00145	0.000319	ND		0.00145	0.000319
TOTAL VO's:	**NS**	**NS**	**NS**	ND			NA	0.018	J		NA	~		~	~	ND			NA	ND			NA	~		~	~	ND			NA	~		~	~	ND			NA	ND			NA
TOTAL TIC's:	**NS**	**NS**	**NS**	ND			NA	ND			NA	~		~	~	6.02			NA	ND			NA	~		~	~	ND			NA	~		~	~	0.00754			NA	ND			NA
TOTAL VO's & TIC's:	**NS**	**NS**	**NS**	ND			NA	0.018	J		NA	~		~	~	6.02			NA	ND			NA	~		~	~	ND			NA	~		~	~	0.00754			NA	ND			NA

TABLE 2
Summary of Soil Sample Analyses
Former Tank Area Below Bldg 2 (AOC 6),
Oil Pits (AOC-7), Sluiceway Discharge (AOC 8), and Southern Rail Siding (AOC-12)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-5-1				AOC-5-2				AOC-7-1				AOC-7-2				AOC-7-3				AOC-7-4				AOC-8				AOC-12-1				AOC-12-2				AOC-6			
Lab ID:	Residential	Non-Residential	Default IGW	09197-001				09197-002				09197-003				09197-004				09197-005				09197-006				09197-007				09197-008				09197-009				09197-010			
Date Sampled:	SRS	SRS	Screening	09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	9 - 9.5				7.5 - 8				8 - 8.5				11 - 11.5				9.5 - 10				9.5 - 10				12.5 - 13				1.5 - 2				3.5 - 4				18.5 - 19			
Semivolatiles - BN (mg/Kg)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Benzaldehyde	6100	68000	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Bis(2-chloroethyl) ether	0.4	2	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.055	ND		0.088	0.062	~		~	~	ND		0.040	0.028	~		~	~	ND		0.077	0.054	ND		0.040	0.028
Bis(2-chloroisopropyl) ether	23	67	5	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
N-Nitrosodi-n-propylamine	0.2	0.3	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.052	ND		0.088	0.058	~		~	~	ND		0.040	0.026	~		~	~	ND		0.077	0.051	ND		0.040	0.026
Acetophenone	2	5	3	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Hexachloroethane	12	48	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Nitrobenzene	5	14	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.077	ND		0.088	0.086	~		~	~	ND		0.040	0.039	~		~	~	ND		0.077	0.075	ND		0.040	0.039
Isophorone	510	2000	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.051	ND		0.088	0.057	~		~	~	ND		0.040	0.026	~		~	~	ND		0.077	0.050	ND		0.040	0.026
Bis(2-chloroethoxy) methane	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.066	ND		0.088	0.074	~		~	~	ND		0.040	0.034	~		~	~	ND		0.077	0.065	ND		0.040	0.034
Naphthalene	6	17	25	~		~	~	~		~	~	~		~	~	0.050	J	0.079	0.047	0.182	D	0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
4-Chloroaniline	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.074	ND		0.088	0.083	~		~	~	ND		0.040	0.038	~		~	~	ND		0.077	0.072	ND		0.040	0.038
Hexachlorobutadiene	6	25	0.9	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Caprolactam	31000	340000	12	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
2-Methylnaphthalene	230	2400	8	~		~	~	~		~	~	~		~	~	0.103		0.079	0.065	0.449	D	0.088	0.073	~		~	~	ND		0.040	0.033	~		~	~	ND		0.077	0.064	ND		0.040	0.033
Hexachlorocyclopentadiene	45	110	320	~		~	~	~		~	~	~		~	~	ND		0.079	0.053	ND		0.088	0.059	~		~	~	ND		0.040	0.027	~		~	~	ND		0.077	0.052	ND		0.040	0.027
1,1'-Biphenyl	61	240	140	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
2-Chloronaphthalene	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.074	ND		0.088	0.083	~		~	~	ND		0.040	0.038	~		~	~	ND		0.077	0.072	ND		0.040	0.038
2-Nitroaniline	39	23000	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Dimethyl phthalate	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
2,6-Dinitrotoluene	0.7	3	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Acenaphthylene	NS	300000	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.055	ND		0.088	0.062	~		~	~	ND		0.040	0.028	~		~	~	ND		0.077	0.054	ND		0.040	0.028
3-Nitroaniline	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.065	ND		0.088	0.073	~		~	~	ND		0.040	0.033	~		~	~	ND		0.077	0.064	ND		0.040	0.033
Acenaphthene	3400	37000	110	~		~	~	~		~	~	~		~	~	ND		0.079	0.063	0.257	D	0.088	0.071	~		~	~	ND		0.040	0.032	~		~	~	ND		0.077	0.062	ND		0.040	0.032
2,4-Dinitrotoluene	120	1400	0.3	~		~	~	~		~	~	~		~	~	ND		0.079	0.051	ND		0.088	0.057	~		~	~	ND		0.040	0.026	~		~	~	ND		0.077	0.050	ND		0.040	0.026
Dibenzofuran	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	0.074	DJ	0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Diethyl phthalate	49000	550000	88	~		~	~	~		~	~	~		~	~	ND		0.079	0.058	ND		0.088	0.065	~		~	~	ND		0.040	0.030	~		~	~	ND		0.077	0.057	ND		0.040	0.030
Fluorene	2300	24000	170	~		~	~	~		~	~	~		~	~	0.308		0.079	0.047	0.274	D	0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
4-Chlorophenyl phenyl ether	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
4-Nitroaniline	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.065	ND		0.088	0.072	~		~	~	ND		0.040	0.033	~		~	~	ND		0.077	0.063	ND		0.040	0.033
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
N-Nitrosodiphenylamine	99	390	0.4	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
4-Bromophenyl phenyl ether	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Hexachlorobenzene	0.3	1	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.063	ND		0.088	0.071	~		~	~	ND		0.040	0.032	~		~	~	ND		0.077	0.062	ND		0.040	0.032
Atrazine	210	2400	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.055	ND		0.088	0.062	~		~	~	ND		0.040	0.028	~		~	~	ND		0.077	0.054	ND		0.040	0.028
Phenanthrene	NS	300000	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.052	ND		0.088	0.058	~		~	~	ND		0.040	0.026	~		~	~	0.113		0.077	0.051	ND		0.040	0.026
Anthracene	17000	30000	2400	~		~	~	~		~	~	~		~	~	ND		0.079	0.079	ND		0.088	0.088	~		~	~	ND		0.040	0.040	~		~	~	ND		0.077	0.077	ND		0.040	0.040
Carbazole	24	96	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Di-n-butyl phthalate	6100	68000	760	~		~	~	~		~	~	~		~	~	ND		0.079	0.071	ND		0.088	0.079	~		~	~	ND		0.040	0.036	~		~	~	0.217		0.077	0.069	ND		0.040	0.036
Fluoranthene	2300	24000	1300	~		~	~	~		~	~	~		~	~	0.711		0.079	0.047	0.275	D	0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	0.157		0.077	0.046	ND		0.040	0.024
Pyrene	1700	18000	840	~		~	~	~		~	~	~		~	~	4.11		0.079	0.058	0.876	D	0.088	0.065	~		~	~	ND		0.040	0.030	~		~	~	0.215		0.077	0.057	ND		0.040	0.030
Butyl benzyl phthalate	1200	14000	230	~		~	~	~		~	~	~		~	~	ND		0.079	0.050	ND		0.088	0.056	~		~	~	ND		0.040	0.026	~		~	~	ND		0.077	0.049	ND		0.040	0.026
3,3'-Dichlorobenzidine	1	4	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.055	ND		0.088	0.062	~		~	~	ND		0.040	0.028	~		~	~	ND		0.077	0.054	ND		0.040	0.028
Benzo[a]anthracene	5	17	0.8	~		~	~	~		~	~	~		~	~	ND		0.079	0.076	ND		0.088	0.085	~		~	~	ND		0.040	0.038	~		~	~	0.149		0.077	0.074	ND		0.040	0.038
Chrysene	450	1700	80	~		~	~	~		~	~	~		~	~	ND		0.079	0.054	ND		0.088	0.060	~		~	~	ND		0.040	0.027	~		~	~	0.173		0.077	0.052	ND		0.040	0.027
Bis(2-ethylhexyl) phthalate	35	140	1200	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	0.079		0.077	0.046	ND		0.040	0.024
Di-n-octyl phthalate	2400	27000	3300	~		~	~	~		~	~	~		~	~	ND		0.079	0.070	ND		0.088	0.078	~		~	~	ND		0.040	0.036	~		~	~	ND		0.077	0.068	ND		0.040	0.036
Benzo[b]fluoranthene	5	17	2	~		~	~	~		~	~	~		~	~	ND		0.079	0.048	ND		0.088	0.054	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.047	ND		0.040	0.024
Benzo[k]fluoranthene	45	170	25	~		~	~	~		~	~	~		~	~	ND		0.079	0.074	ND		0.088	0.083	~		~	~	ND		0.040	0.038	~		~	~	ND		0.077	0.072	ND		0.040	0.038
Benzo[a]pyrene	0.5	2	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.047	ND		0.088	0.053	~		~	~	ND		0.040	0.024	~		~	~	ND		0.077	0.046	ND		0.040	0.024
Indeno[1,2,3-cd]pyrene	5	17	7	~		~	~	~		~	~	~		~	~	ND		0.079	0.052	ND		0.088	0.058	~		~	~	ND		0.040	0.026	~		~	~	ND		0.077	0.051	ND		0.040	0.026
Dibenz[a,h]anthracene	0.5	2	0.8	~		~	~	~		~	~	~		~	~	ND		0.079	0.058	ND		0.088	0.064	~		~	~	ND		0.040	0.029	~		~	~	ND		0.077	0.056	ND		0.040	0.029
Benzo[g,h,i]perylene	380000	30000	NS	~		~	~	~		~	~	~		~	~	ND		0.079	0.071	ND		0.088	0.079	~		~	~	ND		0.040	0.036	~		~	~	ND		0.077	0.069	ND		0.040	0.036
Dinitrotoluene (2,4- and 2,6-)	0.7	3	0.2	~		~	~	~		~	~	~		~	~	ND		0.079	0.051	ND		0.088	0.057	~		~	~	ND		0.040	0.026	~		~	~	ND		0.077	0.050	ND		0.040	0.026
TOTAL BN'S:	NS	NS	NS	~		~	~	~		~	~	~		~	~	5.28	J		NA	2.39	DJ		NA	~		~	~	ND			NA	~		~	~	1.10			NA	ND			NA
TOTAL TIC's:	NS	NS	NS	~		~	~	~		~	~	~		~	~	38.4			NA	11.5			NA	~		~	~	ND			NA	~		~	~	ND			NA	ND			NA
TOTAL BN'S & TIC's:	NS	NS	NS	~		~	~	~		~	~	~		~	~	43.7	J		NA	13.9	DJ		NA	~		~	~	ND			NA	~		~	~	1.10			NA	ND			NA

TABLE 2
Summary of Soil Sample Analyses
Former Tank Area Below Bldg 2 (AOC 6),
Oil Pits (AOC-7), Sluiceway Discharge (AOC 8), and Southern Rail Siding (AOC-12)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-5-1				AOC-5-2				AOC-7-1				AOC-7-2				AOC-7-3				AOC-7-4				AOC-8				AOC-12-1				AOC-12-2				AOC-6			
Lab ID:	Residential	Non-Residential	Default IGW	09197-001				09197-002				09197-003				09197-004				09197-005				09197-006				09197-007				09197-008				09197-009				09197-010			
Date Sampled:	SRS	SRS	Screening	09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	9 - 9.5				7.5 - 8				8 - 8.5				11 - 11.5				9.5 - 10				9.5 - 10				12.5 - 13				1.5 - 2				3.5 - 4				18.5 - 19			
PCB's (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	ND		0.00192	0.000768	~		~	~
Aroclor-1221	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	ND		0.00192	0.000768	~		~	~
Aroclor-1232	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	ND		0.00192	0.000768	~		~	~
Aroclor-1242	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	ND		0.00192	0.000768	~		~	~
Aroclor-1248	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	ND		0.00192	0.000768	~		~	~
Aroclor-1254	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	ND		0.00192	0.000768	~		~	~
Aroclor-1260	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	0.194		0.00192	0.000768	~		~	~
Aroclor-1262	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	ND		0.00192	0.000768	~		~	~
Aroclor-1268	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	ND		0.00192	0.000768	~		~	~
PCBs	0.2	1	0.2	~		~	~	~		~	~	~		~	~	ND		0.00985	0.00394	ND		0.011	0.00443	~		~	~	~		~	~	~		~	~	0.194		0.00192	0.000768	~		~	~
Pesticides (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
beta-BHC	0.4	2	0.002	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
gamma-BHC (Lindane)	0.4	2	0.002	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
delta-BHC	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Heptachlor	0.1	0.7	0.5	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Aldrin	0.04	0.2	0.2	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Heptachlor epoxide	0.07	0.3	0.01	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Endosulfan I	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
4,4'-DDE	2	9	18	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Dieldrin	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Endrin	23	340	1	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Endosulfan II	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
4,4'-DDD	3	13	4	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Endrin aldehyde	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Endosulfan sulfate	470	6800	2	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
4,4'-DDT	2	8	11	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Endrin ketone	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Methoxychlor	390	5700	160	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
alpha-Chlordane	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
gamma-Chlordane	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Toxaphene	0.6	3	0.3	~		~	~	~		~	~	~		~	~	ND		0.025	0.012	ND		0.028	0.013	~		~	~	ND		0.00488	0.00234	~		~	~	ND		0.024	0.012	ND		0.00498	0.00239
Endosulfan (I and II)	470	6800	4	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Chlordane (alpha and gamma)	0.2	1	0.05	~		~	~	~		~	~	~		~	~	ND		0.00197	0.000985	ND		0.00221	0.00111	~		~	~	ND		0.00039	0.000195	~		~	~	ND		0.00192	0.000962	ND		0.000398	0.000199
Herbicides (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dalapon	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.019	0.00768	ND		0.022	0.00876	~		~	~	ND		0.020	0.00792	~		~	~	ND		0.019	0.00776	ND		0.019	0.0077
Dicamba	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.019	0.00768	ND		0.022	0.00876	~		~	~	ND		0.020	0.00792	~		~	~	ND		0.019	0.00776	ND		0.019	0.0077
2,4-D	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.019	0.00768	ND		0.022	0.00876	~		~	~	ND		0.020	0.00792	~		~	~	ND		0.019	0.00776	ND		0.019	0.0077
2,4,5-TP (Silvex)	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.019	0.00768	ND		0.022	0.00876	~		~	~	ND		0.020	0.00792	~		~	~	ND		0.019	0.00776	ND		0.019	0.0077
2,4,5-T	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.019	0.00768	ND		0.022	0.00876	~		~	~	ND		0.020	0.00792	~		~	~	ND		0.019	0.00776	ND		0.019	0.0077
2,4-DB	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.019	0.00768	ND		0.022	0.00876	~		~	~	ND		0.020	0.00792	~		~	~	ND		0.019	0.00776	ND		0.019	0.0077
Dinoseb	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.019	0.00768	ND		0.022	0.00876	~		~	~	ND		0.020	0.00792	~		~	~	ND		0.019	0.00776	ND		0.019	0.0077
NJ-EPH-C40 (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C40	NS	NS	NS	~		~	~	~		~	~	33.0	J	40.6	10.2	~		~	~	~		~	~	~		~	~	23.7	J	41.8	10.5	52.1		41.9	10.5	150		41.7	10.4	ND		42.0	10.5

TABLE 2
Summary of Soil Sample Analyses
Former Tank Area Below Bldg 2 (AOC 6),
Oil Pits (AOC-7), Sluiceway Discharge (AOC 8), and Southern Rail Siding (AOC-12)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-5-1				AOC-5-2				AOC-7-1				AOC-7-2				AOC-7-3				AOC-7-4				AOC-8				AOC-12-1				AOC-12-2				AOC-6			
Lab ID:	Residential	Non-Residential	Default IGW	09197-001				09197-002				09197-003				09197-004				09197-005				09197-006				09197-007				09197-008				09197-009				09197-010			
Date Sampled:	SRS	SRS	Screening	09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	9 - 9.5				7.5 - 8				8 - 8.5				11 - 11.5				9.5 - 10				9.5 - 10				12.5 - 13				1.5 - 2				3.5 - 4				18.5 - 19			
NJ-EPH-Fractionated (mg/Kg)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
C9-C12 Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		69.6	34.8	42.4	DJ	80.6	40.3	92.2	DJ	161	80.6	~		~	~	~		~	~	~		~	~	~		~	~
C12-C16 Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	244	D	46.4	34.8	351	D	53.8	40.3	773	D	107	80.6	~		~	~	~		~	~	~		~	~	~		~	~
C16-C21 Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	629	D	69.6	23.2	681	D	80.6	26.9	1510	D	161	53.7	~		~	~	~		~	~	~		~	~	~		~	~
C21-C40 Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	2510	D	232	23.2	2380	D	269	26.9	5060	D	537	53.7	~		~	~	~		~	~	~		~	~	~		~	~
Total Aliphatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	3380		232	34.8	3450		269	40.3	7440		537	80.6	~		~	~	~		~	~	~		~	~	~		~	~
C10-C12 Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		9.29	4.64	ND		10.8	5.38	7.47	J	10.7	5.37	~		~	~	~		~	~	~		~	~	~		~	~
C12-C16 Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	38.0		13.9	4.64	49.9		16.1	5.38	110		16.1	5.37	~		~	~	~		~	~	~		~	~	~		~	~
C16-C21 Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	474		23.2	4.64	575		26.9	5.38	1190		26.9	5.37	~		~	~	~		~	~	~		~	~	~		~	~
C21-C36 Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	1450		37.1	4.64	1930		43.0	5.38	3120		43.0	5.37	~		~	~	~		~	~	~		~	~	~		~	~
Total Aromatics	NS	NS	NS	~		~	~	~		~	~	~		~	~	1960		37.1	4.64	2550		43.0	5.38	4430	J	43.0	5.37	~		~	~	~		~	~	~		~	~	~		~	~
Total NJ-EPH	NS	NS	NS	~		~	~	~		~	~	~		~	~	5350	D	232	34.8	6010	DJ	269	40.3	11900	DJ	537	80.6	~		~	~	~		~	~	~		~	~	~		~	~
Metals (mg/Kg)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Aluminum	78000	NS	6000	~		~	~	~		~	~	~		~	~	23100		13.0	6.52	24200		14.7	7.35	~		~	~	28300		25.9	12.9	~		~	~	21800		12.9	6.44	31800		27.1	13.6
Antimony	31	450	6	~		~	~	~		~	~	~		~	~	ND		1.30	0.326	ND		1.47	0.367	~		~	~	ND		1.29	0.323	~		~	~	ND		1.29	0.322	ND		1.36	0.339
Arsenic	19	19	19	~		~	~	~		~	~	~		~	~	3.11		0.652	0.326	7.08		0.735	0.367	~		~	~	2.13		1.29	0.647	~		~	~	2.21		0.644	0.322	1.79		1.36	0.678
Barium	16000	59000	2100	~		~	~	~		~	~	~		~	~	148		13.0	3.26	136		14.7	3.67	~		~	~	203		12.9	3.23	~		~	~	175		12.9	3.22	203		13.6	3.39
Beryllium	16	140	0.7	~		~	~	~		~	~	~		~	~	1.28		0.456	0.261	1.29		0.514	0.294	~		~	~	1.72		0.453	0.259	~		~	~	1.85		0.451	0.258	2.05		0.474	0.271
Cadmium	78	78	2	~		~	~	~		~	~	~		~	~	ND		0.652	0.163	ND		0.735	0.184	~		~	~	ND		0.647	0.162	~		~	~	ND		0.644	0.161	ND		0.678	0.169
Calcium	NS	NS	NS	~		~	~	~		~	~	~		~	~	6530		65.2	32.6	2330		73.5	36.7	~		~	~	1960		129	64.7	~		~	~	4210		64.4	32.2	2990		136	67.8
Chromium	NS	NS	NS	~		~	~	~		~	~	~		~	~	37.7		2.61	0.652	63.0		2.94	0.735	~		~	~	38.4		5.17	1.29	~		~	~	29.3		2.58	0.644	37.5		5.42	1.36
Cobalt	1600	590	90	~		~	~	~		~	~	~		~	~	16.3		2.61	0.652	20.8		2.94	0.735	~		~	~	19.8		5.17	1.29	~		~	~	19.4		2.58	0.644	16.3		5.42	1.36
Copper	3100	45000	11000	~		~	~	~		~	~	~		~	~	12.9		2.61	0.652	20.1		2.94	0.735	~		~	~	9.02		5.17	1.29	~		~	~	18.0		2.58	0.644	12.2		5.42	1.36
Iron	NS	NS	NS	~		~	~	~		~	~	~		~	~	27300		32.6	16.3	34500		36.7	18.4	~		~	~	34600		64.7	32.3	~		~	~	26800		32.2	16.1	36500		67.8	33.9
Lead	400	800	90	17.4		0.636	0.159	15.9		0.660	0.165	~		~	~	21.7		0.652	0.163	32.5		0.735	0.184	~		~	~	21.2		0.647	0.162	~		~	~	26.3		0.644	0.161	17.0		0.678	0.169
Magnesium	NS	NS	NS	~		~	~	~		~	~	~		~	~	10300		65.2	16.3	16700		73.5	18.4	~		~	~	5320		129	32.3	~		~	~	6740		64.4	16.1	7550		136	33.9
Manganese	11000	5900	65	~		~	~	~		~	~	~		~	~	337		1.30	0.326	488		1.47	0.367	~		~	~	906		2.59	0.647	~		~	~	648		1.29	0.322	433		2.71	0.678
Mercury	23	65	0.1	~		~	~	~		~	~	~		~	~	0.020		0.015	0.00718	0.040		0.017	0.00796	~		~	~	0.348		0.015	0.00735	~		~	~	0.676		0.015	0.00725	ND		0.016	0.00747
Nickel	1600	23000	48	~		~	~	~		~	~	~		~	~	62.9		1.30	0.652	114		1.47	0.735	~		~	~	41.2		2.59	1.29	~		~	~	38.6		1.29	0.644	57.7		2.71	1.36
Potassium	NS	NS	NS	~		~	~	~		~	~	~		~	~	3100		65.2	16.3	3520		73.5	18.4	~		~	~	3530		129	32.3	~		~	~	3680		64.4	16.1	4160		136	33.9
Selenium	390	5700	11	~		~	~	~		~	~	~		~	~	ND		2.61	1.30	ND		2.94	1.47	~		~	~	ND		5.17	2.59	~		~	~	ND		2.58	1.29	ND		5.42	2.71
Silver	390	5700	1	~		~	~	~		~	~	~		~	~	ND		0.652	0.163	ND		0.735	0.184	~		~	~	ND		0.647	0.162	~		~	~	ND		0.644	0.161	ND		0.678	0.169
Sodium	NS	NS	NS	~		~	~	~		~	~	~		~	~	5440		130	32.6	1240		147	36.7	~		~	~	681		259	64.7	~		~	~	240		129	32.2	459		271	67.8
Thallium	NS	NS	3	~		~	~	~		~	~	~		~	~	ND		0.652	0.163	ND		0.735	0.184	~		~	~	0.221	J	0.647	0.162	~		~	~	0.197	J	0.644	0.161	0.210	J	0.678	0.169
Vanadium	78	1100	NS	~		~	~	~		~	~	~		~	~	29.4		2.61	0.652	40.2		2.94	0.735	~		~	~	34.2		5.17	1.29	~		~	~	29.3		2.58	0.644	31.6		5.42	1.36
Zinc	23000	110000	930	~		~	~	~		~	~	~		~	~	56.9		2.61	2.61	83.3		2.94	2.94	~		~	~	53.9		5.17	5.17	~		~	~	93.6		2.58	2.58	63.0		5.42	5.42

Notes:

Shaded results exceed the NJDEP Default Impact to Groundwater Soil Screening Levels

Shaded results exceed the NJDEP Residential Soil Remediation Standards

Shaded results exceed the NJDEP Non-Residential Soil Remediation Standards

BOLD RL = Reporting limit exceeds applicable standard.

BOLD MDL = Method detection limit exceeds applicable standard.

NS = No Standard Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

D = The compound was reported from the Diluted analysis

TABLE 3
Summary of Groundwater Sample Analyses
Oil Pits (AOC-7) and Exisitng Upgradient Well MW-901
50 Division Avenue, Millington, New Jersey

Sample #: / Lab ID: / Date Sampled:	HIGHER OF PQLs and GWQC (ug/L)	Vapor Intrusion GW Screening Levels (ug/L)	AOC-7-2 09198-005 09/18/2013				AOC-7-4 09198-006 09/18/2013				EX. WELL 09198-007 09/18/2013				FB 09198-008 09/18/2013				TB 09198-009 09/18/2013			
Volatiles (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	1000	1000	ND		1.00	0.390	ND		1.00	0.390	ND		1.00	0.390	~		~	~	ND		1.00	0.390
Chloromethane	NS	240	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	~		~	~	ND		1.00	0.270
Vinyl chloride	1	1	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	~		~	~	ND		1.00	0.230
Bromomethane	10	20	ND		1.00	0.440	ND		1.00	0.440	ND		1.00	0.440	~		~	~	ND		1.00	0.440
Chloroethane	5	26000	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	~		~	~	ND		1.00	0.400
Trichlorofluoromethane	2000	2000	ND		1.00	0.900	ND		1.00	0.900	ND		1.00	0.900	~		~	~	ND		1.00	0.900
1,1-Dichloroethene	1	260	ND		1.00	0.460	ND		1.00	0.460	ND		1.00	0.460	~		~	~	ND		1.00	0.460
Acetone	6000	21000000	ND		2.00	1.33	ND		2.00	1.33	ND		2.00	1.33	~		~	~	ND		2.00	1.33
Carbon disulfide	700	1500	ND		1.00	0.320	ND		1.00	0.320	ND		1.00	0.320	~		~	~	ND		1.00	0.320
Methylene chloride	3	920	ND		2.00	1.98	ND		2.00	1.98	ND		2.00	1.98	~		~	~	ND		2.00	1.98
trans-1,2-Dichloroethene	100	520	ND		1.00	0.300	ND		1.00	0.300	ND		1.00	0.300	~		~	~	ND		1.00	0.300
Methyl tert-butyl ether (MTBE)	70	580	ND		1.00	0.190	ND		1.00	0.190	ND		1.00	0.190	~		~	~	ND		1.00	0.190
1,1-Dichloroethane	50	50	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	~		~	~	ND		1.00	0.210
cis-1,2-Dichloroethene	70	NS	ND		1.00	0.310	ND		1.00	0.310	ND		1.00	0.310	~		~	~	ND		1.00	0.310
2-Butanone (MEK)	300	2500000	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	~		~	~	ND		1.00	0.370
Bromochloromethane	NS	NS	ND		1.00	0.410	ND		1.00	0.410	ND		1.00	0.410	~		~	~	ND		1.00	0.410
Chloroform	70	70	ND		1.00	0.280	ND		1.00	0.280	1.22		1.00	0.280	~		~	~	ND		1.00	0.280
1,1,1-Trichloroethane	30	13000	ND		1.00	0.340	ND		1.00	0.340	ND		1.00	0.340	~		~	~	ND		1.00	0.340
Carbon tetrachloride	1	1	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	~		~	~	ND		1.00	0.330
1,2-Dichloroethane (EDC)	2	3	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	~		~	~	ND		1.00	0.240
Benzene	1	20	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	~		~	~	ND		1.00	0.220
Trichloroethene	1	2	ND		1.00	0.300	ND		1.00	0.300	ND		1.00	0.300	~		~	~	ND		1.00	0.300
1,2-Dichloropropane	1	4	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	~		~	~	ND		1.00	0.230
1,4-Dioxane	0.4	NS	~		~	~	~		~	~	~		~	~	~		~	~	ND		**200**	**37.0**
Bromodichloromethane	1	2	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	~		~	~	ND		1.00	0.240
cis-1,3-Dichloropropene	NS	7	ND		1.00	0.200	ND		1.00	0.200	ND		1.00	0.200	~		~	~	ND		1.00	0.200
4-Methyl-2-pentanone (MIBK)	NS	900000	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	~		~	~	ND		1.00	0.370
Toluene	600	330000	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	~		~	~	ND		1.00	0.210
trans-1,3-Dichloropropene	NS	7	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	~		~	~	ND		1.00	0.240
1,1,2-Trichloroethane	3	8	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	~		~	~	ND		1.00	0.250
Tetrachloroethene	1	31	ND		1.00	0.380	ND		1.00	0.380	ND		1.00	0.380	~		~	~	ND		1.00	0.380
2-Hexanone	300	NS	ND		1.00	0.360	ND		1.00	0.360	ND		1.00	0.360	~		~	~	ND		1.00	0.360
Dibromochloromethane	1	6	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	~		~	~	ND		1.00	0.270
1,2-Dibromoethane (EDB)*	0.03	0.4	ND		0.014	0.00855	ND		0.014	0.00855	ND		0.014	0.00855	~		~	~	ND		**1.00**	**0.270**
Chlorobenzene	50	770	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	~		~	~	ND		1.00	0.220
Ethylbenzene	700	700	ND		1.00	0.300	ND		1.00	0.300	ND		1.00	0.300	~		~	~	ND		1.00	0.300
Total Xylenes	1000	8600	ND		2.00	0.720	ND		2.00	0.720	ND		2.00	0.720	~		~	~	ND		2.00	0.720
Styrene	100	180000	ND		1.00	0.320	ND		1.00	0.320	ND		1.00	0.320	~		~	~	ND		1.00	0.320
Bromoform	4	300	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	~		~	~	ND		1.00	0.270
Isopropylbenzene	700	NS	ND		1.00	0.350	ND		1.00	0.350	ND		1.00	0.350	~		~	~	ND		1.00	0.350
1,1,2,2-Tetrachloroethane	1	6	ND		1.00	0.300	ND		1.00	0.300	ND		1.00	0.300	~		~	~	ND		1.00	0.300
1,3-Dichlorobenzene	600	NS	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	~		~	~	ND		1.00	0.250
1,4-Dichlorobenzene	75	75	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	~		~	~	ND		1.00	0.330
1,2-Dichlorobenzene	600	6800	ND		1.00	0.260	ND		1.00	0.260	ND		1.00	0.260	~		~	~	ND		1.00	0.260
1,2-Dibromo-3-chloropropane*	0.02	NS	ND		0.014	0.00855	ND		0.014	0.00855	ND		0.014	0.00855	~		~	~	ND		**1.00**	**0.300**
1,2,4-Trichlorobenzene	9	130	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	~		~	~	ND		1.00	0.370
1,2,3-Trichlorobenzene	NS	NS	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	~		~	~	ND		1.00	0.220
1,1,2-Trichloro-1,2,2-trifluoroethar	20000	3700	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	~		~	~	ND		1.00	0.370
Methyl acetate	7000	NS	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	~		~	~	ND		1.00	0.250
Cyclohexane	NS	16000	ND		5.00	0.300	ND		5.00	0.300	ND		5.00	0.300	~		~	~	ND		5.00	0.300
Methylcyclohexane	NS	NS	ND		1.00	0.320	ND		1.00	0.320	ND		1.00	0.320	~		~	~	ND		1.00	0.320
1,3-Dichloropropene (cis- and trar	1	7	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	~		~	~	ND		1.00	0.240
TOTAL VO's:	NS	NS	ND			NA	ND			NA	1.22			NA	~		~	~	ND			NA
TOTAL TIC's:	NS	NS	ND			NA	ND			NA	ND			NA	~		~	~	ND			NA
TOTAL VO's & TIC's:	NS	NS	ND			NA	ND			NA	1.22			NA	~		~	~	ND			NA
Semivolatiles - BN (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Benzaldehyde	NS	NS	ND		1.00	0.180	ND		1.00	0.180	~		~	~	~		~	~	~		~	~
Bis(2-chloroethyl) ether	7	NS	ND		1.00	0.530	ND		1.00	0.530	~		~	~	~		~	~	~		~	~
Bis(2-chloroisopropyl) ether	300	NS	ND		1.00	0.620	ND		1.00	0.620	~		~	~	~		~	~	~		~	~
N-Nitrosodi-n-propylamine	10	NS	ND		1.00	0.400	ND		1.00	0.400	~		~	~	~		~	~	~		~	~
Acetophenone	700	NS	ND		1.00	0.500	ND		1.00	0.500	~		~	~	~		~	~	~		~	~
Hexachloroethane	7	NS	ND		1.00	0.390	ND		1.00	0.390	~		~	~	~		~	~	~		~	~
Nitrobenzene	6	NS	ND		1.00	0.320	ND		1.00	0.320	~		~	~	~		~	~	~		~	~
Isophorone	40	NS	ND		1.00	0.350	ND		1.00	0.350	~		~	~	~		~	~	~		~	~
Bis(2-chloroethoxy) methane	NS	NS	ND		1.00	0.690	ND		1.00	0.690	~		~	~	~		~	~	~		~	~
Naphthalene	300	300	ND		1.00	0.340	ND		1.00	0.340	~		~	~	~		~	~	~		~	~
4-Chloroaniline	30	NS	ND		1.00	0.270	ND		1.00	0.270	~		~	~	~		~	~	~		~	~
Hexachlorobutadiene	1	1	ND		1.00	0.330	ND		1.00	0.330	~		~	~	~		~	~	~		~	~
Caprolactam	4000	NS	ND		1.00	0.770	ND		1.00	0.770	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	30	NS	ND		1.00	0.340	ND		1.00	0.340	~		~	~	~		~	~	~		~	~
Hexachlorocyclopentadiene	40	NS	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~	~		~	~
1,1'-Biphenyl	400	NS	ND		1.00	0.350	ND		1.00	0.350	~		~	~	~		~	~	~		~	~
2-Chloronaphthalene	600	NS	ND		1.00	0.320	ND		1.00	0.320	~		~	~	~		~	~	~		~	~
2-Nitroaniline	NS	NS	ND		1.00	0.230	ND		1.00	0.230	~		~	~	~		~	~	~		~	~
Diethyl phthalate	NS	NS	ND		1.00	0.370	ND		1.00	0.370	~		~	~	~		~	~	~		~	~
2,6-Dinitrotoluene	10	NS	ND		1.00	0.170	ND		1.00	0.170	~		~	~	~		~	~	~		~	~
Acenaphthylene	NS	NS	ND		1.00	0.290	ND		1.00	0.290	~		~	~	~		~	~	~		~	~
3-Nitroaniline	NS	NS	ND		1.00	0.170	ND		1.00	0.170	~		~	~	~		~	~	~		~	~
Acenaphthene	400	NS	ND		1.00	0.350	0.984	J	1.00	0.350	~		~	~	~		~	~	~		~	~
2,4-Dinitrotoluene	10	NS	ND		1.00	0.160	ND		1.00	0.160	~		~	~	~		~	~	~		~	~
Dibenzofuran	NS	NS	ND		1.00	0.360	ND		1.00	0.360	~		~	~	~		~	~	~		~	~
Diethyl phthalate	6000	NS	ND		1.00	0.400	ND		1.00	0.400	~		~	~	~		~	~	~		~	~
Fluorene	300	NS	ND		1.00	0.310	0.415	J	1.00	0.310	~		~	~	~		~	~	~		~	~
4-Chlorophenyl phenyl ether	NS	NS	ND		1.00	0.390	ND		1.00	0.390	~		~	~	~		~	~	~		~	~
4-Nitroaniline	NS	NS	ND		1.00	0.540	ND		1.00	0.540	~		~	~	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	NS	NS	ND		1.00	0.330	ND		1.00	0.330	~		~	~	~		~	~	~		~	~
N-Nitrosodiphenylamine	10	NS	ND		1.00	0.370	ND		1.00	0.370	~		~	~	~		~	~	~		~	~
4-Bromophenyl phenyl ether	NS	NS	ND		1.00	0.380	ND		1.00	0.380	~		~	~	~		~	~	~		~	~
Hexachlorobenzene	0.02	NS	ND		0.020	0.020	ND		0.020	0.020	~		~	~	~		~	~	~		~	~
Atrazine	3	NS	ND		1.00	0.420	ND		1.00	0.420	~		~	~	~		~	~	~		~	~
Phenanthrene	NS	NS	ND		1.00	0.380	ND		1.00	0.380	~		~	~	~		~	~	~		~	~
Anthracene	2000	NS	0.565	J	1.00	0.350	0.476	J	1.00	0.350	~		~	~	~		~	~	~		~	~
Carbazole	NS	NS	ND		1.00	0.310	ND		1.00	0.310	~		~	~	~		~	~	~		~	~
Di-n-butyl phthalate	700	NS	ND		1.00	0.380	ND		1.00	0.380	~		~	~	~		~	~	~		~	~
Fluoranthene	300	NS	0.744	J	1.00	0.290	0.507	J	1.00	0.290	~		~	~	~		~	~	~		~	~
Pyrene	200	NS	6.46		1.00	0.380	3.29		1.00	0.380	~		~	~	~		~	~	~		~	~
Butyl benzyl phthalate	100	NS	ND		1.00	0.380	ND		1.00	0.380	~		~	~	~		~	~	~		~	~
3,3'-Dichlorobenzidine	30	NS	ND		1.00	0.380	ND		1.00	0.380	~		~	~	~		~	~	~		~	~
Benzo[a]anthracene	0.1	NS	**0.540**		0.100	0.100	**0.258**		0.100	0.100	~		~	~	~		~	~	~		~	~
Chrysene	5	NS	1.72		1.00	0.380	0.711	J	1.00	0.380	~		~	~	~		~	~	~		~	~
Bis(2-ethylhexyl) phthalate	3	NS	ND		1.00	0.370	ND		1.00	0.370	~		~	~	~		~	~	~		~	~
Di-n-octyl phthalate	100	NS	ND		1.00	0.460	ND		1.00	0.460	~		~	~	~		~	~	~		~	~
Benzo[b]fluoranthene	0.2	NS	**0.617**		0.100	0.100	0.239 *		0.100	0.100	~		~	~	~		~	~	~		~	~
Benzo[k]fluoranthene	0.5	NS	0.111		0.100	0.100	ND		0.100	0.100	~		~	~	~		~	~	~		~	~
Benzo[a]pyrene	0.1	NS	**0.752**		0.100	0.100	**0.265**		0.100	0.100	~		~	~	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	0.2	NS	**0.468**		0.100	0.100	0.184		0.100	0.100	~		~	~	~		~	~	~		~	~
Dibenz[a,h]anthracene	0.3	NS	**0.428**		0.100	0.100	0.189		0.100	0.100	~		~	~	~		~	~	~		~	~
Benzo[g,h,i]perylene	NS	NS	1.56		1.00	0.460	0.586	J	1.00	0.460	~		~	~	~		~	~	~		~	~
1,4-Dioxane	0.4	NS	ND		1.00	0.430	ND		1.00	0.430	~		~	~	~		~	~	~		~	~
Dinitrotoluene (2,4- and 2,6-)	10	NS	ND		1.00	0.170	ND		1.00	0.170	~		~	~	~		~	~	~		~	~
TOTAL BN'S:	NS	NS	14.0	J		NA	8.10	J		NA	~		~	~	~		~	~	~		~	~
TOTAL TIC's:	NS	NS	5.40			NA	ND			NA	~		~	~	~		~	~	~		~	~
TOTAL BN'S & TIC's:	NS	NS	19.4	J		NA	8.10	J		NA	~		~	~	~		~	~	~		~	~

TABLE 3
Summary of Groundwater Sample Analyses
Oil Pits (AOC-7) and Exisitng Upgradient Well MW-901
50 Division Avenue, Millington, New Jersey

Sample #: / Lab ID: / Date Sampled:	HIGHER OF PQLs and GWQC (ug/L)	Vapor Intrusion GW Screening Levels (ug/L)	AOC-7-2 09198-005 09/18/2013				AOC-7-4 09198-006 09/18/2013				EX. WELL 09198-007 09/18/2013				FB 09198-008 09/18/2013				TB 09198-009 09/18/2013			
Semivolatiles - BNA (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Benzaldehyde	NS	NS	~		~	~	~		~	~	ND		1.00	0.180	~		~	~	~		~	~
Phenol	2000	NS	~		~	~	~		~	~	ND		1.00	0.400	~		~	~	~		~	~
Bis(2-chloroethyl) ether	7	NS	~		~	~	~		~	~	ND		1.00	0.530	~		~	~	~		~	~
2-Chlorophenol	40	NS	~		~	~	~		~	~	ND		1.00	0.310	~		~	~	~		~	~
2-Methylphenol	NS	NS	~		~	~	~		~	~	ND		1.00	0.640	~		~	~	~		~	~
Bis(2-chloroisopropyl) ether	300	NS	~		~	~	~		~	~	ND		1.00	0.620	~		~	~	~		~	~
4-Methylphenol **	NS	NS	~		~	~	~		~	~	ND		1.00	0.380	~		~	~	~		~	~
N-Nitrosodi-n-propylamine	10	NS	~		~	~	~		~	~	ND		1.00	0.400	~		~	~	~		~	~
Acetophenone	700	NS	~		~	~	~		~	~	ND		1.00	0.500	~		~	~	~		~	~
Hexachloroethane	7	300	~		~	~	~		~	~	ND		1.00	0.390	~		~	~	~		~	~
Nitrobenzene	6	NS	~		~	~	~		~	~	ND		1.00	0.320	~		~	~	~		~	~
Isophorone	40	1	~		~	~	~		~	~	ND		1.00	0.350	~		~	~	~		~	~
2-Nitrophenol	40	NS	~		~	~	~		~	~	ND		1.00	0.220	~		~	~	~		~	~
2,4-Dimethylphenol	100	NS	~		~	~	~		~	~	ND		1.00	0.350	~		~	~	~		~	~
Bis(2-chloroethoxy) methane	NS	NS	~		~	~	~		~	~	ND		1.00	0.690	~		~	~	~		~	~
2,4-Dichlorophenol	NS	NS	~		~	~	~		~	~	ND		1.00	0.610	~		~	~	~		~	~
Naphthalene	300	NS	~		~	~	~		~	~	ND		1.00	0.340	~		~	~	~		~	~
4-Chloroaniline	30	NS	~		~	~	~		~	~	ND		1.00	0.270	~		~	~	~		~	~
Hexachlorobutadiene	1	NS	~		~	~	~		~	~	ND		1.00	0.330	~		~	~	~		~	~
Caprolactam	4000	NS	~		~	~	~		~	~	ND		1.00	0.770	~		~	~	~		~	~
4-Chloro-3-methylphenol	NS	NS	~		~	~	~		~	~	ND		1.00	0.290	~		~	~	~		~	~
2-Methylnaphthalene	30	NS	~		~	~	~		~	~	ND		1.00	0.340	~		~	~	~		~	~
Hexachlorocyclopentadiene	40	NS	~		~	~	~		~	~	ND		1.00	0.100	~		~	~	~		~	~
2,4,6-Trichlorophenol	20	NS	~		~	~	~		~	~	ND		1.00	0.320	~		~	~	~		~	~
2,4,5-Trichlorophenol	700	NS	~		~	~	~		~	~	ND		1.00	0.440	~		~	~	~		~	~
1,1'-Biphenyl	400	NS	~		~	~	~		~	~	ND		1.00	0.350	~		~	~	~		~	~
2-Chloronaphthalene	600	NS	~		~	~	~		~	~	ND		1.00	0.320	~		~	~	~		~	~
2-Nitroaniline	NS	NS	~		~	~	~		~	~	ND		1.00	0.230	~		~	~	~		~	~
Dimethyl phthalate	NS	NS	~		~	~	~		~	~	ND		1.00	0.370	~		~	~	~		~	~
2,6-Dinitrotoluene	10	NS	~		~	~	~		~	~	ND		1.00	0.170	~		~	~	~		~	~
Acenaphthylene	NS	NS	~		~	~	~		~	~	ND		1.00	0.290	~		~	~	~		~	~
3-Nitroaniline	NS	NS	~		~	~	~		~	~	ND		1.00	0.170	~		~	~	~		~	~
Acenaphthene	400	NS	~		~	~	~		~	~	ND		1.00	0.350	~		~	~	~		~	~
2,4-Dinitrophenol	40	NS	~		~	~	~		~	~	ND		1.00	0.270	~		~	~	~		~	~
4-Nitrophenol	NS	NS	~		~	~	~		~	~	ND		1.00	0.630	~		~	~	~		~	~
2,4-Dinitrotoluene	NS	NS	~		~	~	~		~	~	ND		1.00	0.160	~		~	~	~		~	~
Dibenzofuran	NS	NS	~		~	~	~		~	~	ND		1.00	0.360	~		~	~	~		~	~
Diethyl phthalate	6000	NS	~		~	~	~		~	~	ND		1.00	0.400	~		~	~	~		~	~
Fluorene	300	NS	~		~	~	~		~	~	ND		1.00	0.310	~		~	~	~		~	~
4-Chlorophenyl phenyl ether	NS	NS	~		~	~	~		~	~	ND		1.00	0.390	~		~	~	~		~	~
4-Nitroaniline	NS	NS	~		~	~	~		~	~	ND		1.00	0.540	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	NS	NS	~		~	~	~		~	~	ND		1.00	0.330	~		~	~	~		~	~
2,3,4,6-Tetrachlorophenol	200	NS	~		~	~	~		~	~	ND		1.00	0.260	~		~	~	~		~	~
4,6-Dinitro-2-methylphenol	NS	NS	~		~	~	~		~	~	ND		1.00	0.240	~		~	~	~		~	~
N-Nitrosodiphenylamine	10	NS	~		~	~	~		~	~	ND		1.00	0.370	~		~	~	~		~	~
4-Bromophenyl phenyl ether	NS	NS	~		~	~	~		~	~	ND		1.00	0.380	~		~	~	~		~	~
Hexachlorobenzene	0.02	NS	~		~	~	~		~	~	ND		0.020	0.020	~		~	~	~		~	~
Atrazine	3	NS	~		~	~	~		~	~	ND		1.00	0.420	~		~	~	~		~	~
Pentachlorophenol	0.3	NS	~		~	~	~		~	~	ND		0.100	0.100	~		~	~	~		~	~
Phenanthrene	NS	NS	~		~	~	~		~	~	ND		1.00	0.380	~		~	~	~		~	~
Anthracene	2000	NS	~		~	~	~		~	~	ND		1.00	0.350	~		~	~	~		~	~
Carbazole	NS	NS	~		~	~	~		~	~	ND		1.00	0.310	~		~	~	~		~	~
Di-n-butyl phthalate	700	NS	~		~	~	~		~	~	ND		1.00	0.380	~		~	~	~		~	~
Fluoranthene	300	NS	~		~	~	~		~	~	ND		1.00	0.290	~		~	~	~		~	~
Pyrene	200	NS	~		~	~	~		~	~	ND		1.00	0.380	~		~	~	~		~	~
Butyl benzyl phthalate	100	NS	~		~	~	~		~	~	ND		1.00	0.380	~		~	~	~		~	~
3,3'-Dichlorobenzidine	30	NS	~		~	~	~		~	~	ND		1.00	0.380	~		~	~	~		~	~
Benzo[a]anthracene	0.1	NS	~		~	~	~		~	~	ND		0.100	0.100	~		~	~	~		~	~
Chrysene	5	NS	~		~	~	~		~	~	ND		1.00	0.380	~		~	~	~		~	~
Bis(2-ethylhexyl) phthalate	3	NS	~		~	~	~		~	~	ND		1.00	0.370	~		~	~	~		~	~
Di-n-octyl phthalate	100	NS	~		~	~	~		~	~	ND		1.00	0.460	~		~	~	~		~	~
Benzo[b]fluoranthene	0.2	NS	~		~	~	~		~	~	ND		0.100	0.100	~		~	~	~		~	~
Benzo[k]fluoranthene	0.5	NS	~		~	~	~		~	~	ND		0.100	0.100	~		~	~	~		~	~
Benzo[a]pyrene	0.1	NS	~		~	~	~		~	~	ND		0.100	0.100	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	0.2	NS	~		~	~	~		~	~	ND		0.100	0.100	~		~	~	~		~	~
Dibenz[a,h]anthracene	0.3	NS	~		~	~	~		~	~	ND		0.100	0.100	~		~	~	~		~	~
Benzo[g,h,i]perylene	NS	NS	~		~	~	~		~	~	ND		1.00	0.460	~		~	~	~		~	~
1,4-Dioxane	0.4	NS	~		~	~	~		~	~	ND		1.00	0.430	~		~	~	~		~	~
Dinitrotoluene (2,4- and 2,6-)	10	NS	~		~	~	~		~	~	ND		1.00	0.170	~		~	~	~		~	~
TOTAL BNA'S:	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~	~		~	~
TOTAL TIC's:	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~	~		~	~
TOTAL BNA'S & TIC's:	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~	~		~	~
PCB's (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Aroclor-1016	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
Aroclor-1221	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
Aroclor-1232	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
Aroclor-1242	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
Aroclor-1248	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
Aroclor-1254	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
Aroclor-1260	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
Aroclor-1262	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
Aroclor-1268	NS	NS	~		~	~	~		~	~	ND		0.050	0.020	~		~	~	~		~	~
PCBs	0.5	NS	~		~	~	~		~	~	ND			NA	~		~	~	~		~	~
Pesticides (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
alpha-BHC	0.02	NS	ND		**0.100**	**0.050**	ND		**0.100**	**0.050**	ND		0.010	0.005	~		~	~	~		~	~
beta-BHC	0.04	NS	ND		**0.100**	**0.050**	ND		**0.100**	**0.050**	ND		0.010	0.005	~		~	~	~		~	~
gamma-BHC (Lindane)	0.03	NS	ND		**0.100**	**0.050**	ND		**0.100**	**0.050**	ND		0.010	0.005	~		~	~	~		~	~
delta-BHC	NS	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Heptachlor	0.05	NS	ND		**0.100**	0.050	ND		**0.100**	0.050	ND		0.010	0.005	~		~	~	~		~	~
Aldrin	0.04	NS	ND		**0.100**	**0.050**	ND		**0.100**	**0.050**	ND		0.010	0.005	~		~	~	~		~	~
Heptachlor epoxide	0.2	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Endosulfan I	40	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
4,4'-DDE	0.1	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Dieldrin	0.03	NS	ND		**0.100**	**0.050**	ND		**0.100**	**0.050**	ND		0.010	0.005	~		~	~	~		~	~
Endrin	2	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Endosulfan II	40	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
4,4'-DDD	0.1	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Endrin aldehyde	NS	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Endosulfan sulfate	40	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
4,4'-DDT	0.1	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Endrin ketone	NS	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Methoxychlor	40	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
alpha-Chlordane	NS	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
gamma-Chlordane	NS	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Toxaphene	2	NS	ND		1.25	0.600	ND		1.25	0.600	ND		0.125	0.060	~		~	~	~		~	~
Endosulfan (I and II)	40	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Chlordane (alpha and gamma)	0.5	NS	ND		0.100	0.050	ND		0.100	0.050	ND		0.010	0.005	~		~	~	~		~	~
Herbicides (ug/L)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dalapon	200	NS	ND		0.300	0.120	ND		0.650	0.260	~		~	~	~		~	~	~		~	~
Dicamba	NS	NS	ND		0.300	0.120	ND		0.650	0.260	~		~	~	~		~	~	~		~	~
2,4-D	70	NS	ND		0.300	0.120	ND		0.650	0.260	~		~	~	~		~	~	~		~	~
2,4,5-TP (Silvex)	60	NS	ND		0.300	0.120	ND		0.650	0.260	~		~	~	~		~	~	~		~	~
2,4,5-T	NS	NS	ND		0.300	0.120	ND		0.650	0.260	~		~	~	~		~	~	~		~	~
2,4-DB	NS	NS	ND		0.300	0.120	ND		0.650	0.260	~		~	~	~		~	~	~		~	~
Dinoseb	7	NS	ND		0.300	0.120	ND		0.650	0.260	~		~	~	~		~	~	~		~	~

TABLE 3
Summary of Groundwater Sample Analyses
Oil Pits (AOC-7) and Exisitng Upgradient Well MW-901
50 Division Avenue, Millington, New Jersey

Sample #: / Lab ID: / Date Sampled:	HIGHER OF PQLs and GWQC (ug/L)	Vapor Intrusion GW Screening Levels (ug/L)	AOC-7-2 09198-005 09/18/2013				AOC-7-4 09198-006 09/18/2013				EX. WELL 09198-007 09/18/2013				FB 09198-008 09/18/2013				TB 09198-009 09/18/2013			
Metals (ug/L)			**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aluminum	**200**	**NS**	**9170**		40.0	20.0	**6510**		40.0	20.0	**203**		40.0	20.0	~		~	~	~		~	~
Antimony	**6**	**NS**	ND		4.00	1.00	ND		4.00	1.00	ND		4.00	1.00	~		~	~	~		~	~
Arsenic	**3**	**NS**	**4.40**		2.00	1.00	**4.42**		2.00	1.00	ND		2.00	1.00	~		~	~	~		~	~
Barium	**6000**	**NS**	1300		40.0	10.0	1310		40.0	10.0	267		40.0	10.0	~		~	~	~		~	~
Beryllium	**1**	**NS**	**2.37**		**2.00**	1.00	**2.14**		**2.00**	1.00	ND		**2.00**	1.00	~		~	~	~		~	~
Cadmium	**4**	**NS**	1.01	J	2.00	0.500	1.66	J	2.00	0.500	ND		2.00	0.500	~		~	~	~		~	~
Calcium	**NS**	**NS**	103000		200	100	107000		200	100	63100		200	100	~		~	~	~		~	~
Chromium	**70**	**NS**	27.3		8.00	2.00	16.2		8.00	2.00	ND		8.00	2.00	~		~	~	~		~	~
Cobalt	**100**	**NS**	24.8		8.00	2.00	24.9		8.00	2.00	ND		8.00	2.00	~		~	~	~		~	~
Copper	**1300**	**NS**	21.2		8.00	4.00	33.1		8.00	4.00	ND		8.00	4.00	~		~	~	~		~	~
Iron	**300**	**NS**	**14400**		100	50.0	**11900**		100	50.0	187		100	50.0	~		~	~	~		~	~
Lead	**5**	**NS**	**102**		2.00	0.500	**111**		2.00	0.500	ND		2.00	0.500	~		~	~	~		~	~
Magnesium	**NS**	**NS**	25100		200	50.0	24200		200	50.0	32400		200	50.0	~		~	~	~		~	~
Manganese	**50**	**NS**	**1770**		4.00	2.00	**1750**		4.00	2.00	**51.2**		4.00	2.00	~		~	~	~		~	~
Mercury	**2**	**NS**	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300	~		~	~	~		~	~
Nickel	**100**	**NS**	**136**		4.00	1.00	**105**		4.00	1.00	ND		4.00	1.00	~		~	~	~		~	~
Potassium	**NS**	**NS**	5970		200	50.0	8470		200	50.0	1920		200	50.0	~		~	~	~		~	~
Selenium	**40**	**NS**	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	~		~	~	~		~	~
Silver	**40**	**NS**	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	~		~	~	~		~	~
Sodium	**50000**	**NS**	**234000**		400	100	**264000**		400	100	**87300**		400	100	~		~	~	~		~	~
Thallium	**2**	**NS**	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	~		~	~	~		~	~
Vanadium	**NS**	**NS**	50.4		8.00	2.00	44.7		8.00	2.00	3.77		8.00	2.00	~		~	~	~		~	~
Zinc	**2000**	**NS**	579		8.00	4.00	782		8.00	4.00	ND		8.00	4.00	~		~	~	~		~	~
General Analytical			**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Cyanide, Total-ug/L	**100**	**NS**	~		~	~	~		~	~	ND		20.0	5.00	~		~	~	~		~	~

Notes:

NJDEP GWQS = New Jersey Department of Environmental Protection Groundwater Quality Standard

NJDEP VIGSL = New Jersey Departement of Environmental Protection Vapor Intrusion Groundwater Screening Level

Shaded results exceed the New Jersey Department of Environmental Protection (NJDEP) Groundwater Quality Standard

Shaded results exceed the New Jersey Department of Environmental Protection (NJDEP) Vapor Intrusion Groundwater Screening Level

Bold RL = Reporting limit exceeds applicable standard

Bold MDL = Method detection limit exceeds applicable standard

* = Value does not exceed applicable standard when rounded to the significant figure

ND = Analyzed for but Not Detected at the MDL

NS = No Standard

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

D = The compound was reported from the Diluted analysis

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

TABLE 4
Summary of Soil Sample Analyses
Transformer House (AOC-9) and Northern Rail Siding (AOC-12)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-9-1				AOC-9-2				AOC-12-3				AOC-12-4			
Lab ID:	Residential	Non-Residential	Default IGW	09198-001				09198-002				09198-003				09198-004			
Date Sampled:	SRS	SRS	Screening	09/18/2013				09/18/2013				09/18/2013				09/18/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	0 - 0.5				0 - 0.5				1.5 - 2				2 - 2.5			
Volatiles (mg/Kg)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	490	230000	39	~		~	~	~		~	~	ND		0.00116	0.00065	~		~	~
Chloromethane	4	12	NS	~		~	~	~		~	~	ND		0.00116	0.000336	~		~	~
Vinyl chloride	0.7	2	0.005	~		~	~	~		~	~	ND		0.00116	0.000452	~		~	~
Bromomethane	25	59	0.04	~		~	~	~		~	~	ND		0.00116	0.000557	~		~	~
Chloroethane	220	1100	NS	~		~	~	~		~	~	ND		0.00116	0.000429	~		~	~
Trichlorofluoromethane	23000	340000	34	~		~	~	~		~	~	ND		0.00116	0.000348	~		~	~
1,1-Dichloroethene	11	150	0.008	~		~	~	~		~	~	ND		0.00116	0.000476	~		~	~
Acetone	70000	NS	19	~		~	~	~		~	~	ND		0.0058	0.000638	~		~	~
Carbon disulfide	7800	110000	6	~		~	~	~		~	~	0.00152		0.00116	0.00036	~		~	~
Methylene chloride	46	230	0.01	~		~	~	~		~	~	ND		0.00232	0.0023	~		~	~
trans-1,2-Dichloroethene	300	720	0.6	~		~	~	~		~	~	ND		0.00116	0.000394	~		~	~
Methyl tert-butyl ether (MTBE)	110	320	0.2	~		~	~	~		~	~	ND		0.00116	0.00029	~		~	~
1,1-Dichloroethane	8	24	0.2	~		~	~	~		~	~	ND		0.00116	0.000348	~		~	~
cis-1,2-Dichloroethene	230	560	0.3	~		~	~	~		~	~	ND		0.00116	0.000325	~		~	~
2-Butanone (MEK)	3100	44000	0.9	~		~	~	~		~	~	ND		0.00116	0.000336	~		~	~
Bromochloromethane	NS	NS	NS	~		~	~	~		~	~	ND		0.00116	0.00029	~		~	~
Chloroform	0.6	2	0.4	~		~	~	~		~	~	ND		0.00116	0.000313	~		~	~
1,1,1-Trichloroethane	160000	NS	0.3	~		~	~	~		~	~	ND		0.00116	0.000302	~		~	~
Carbon tetrachloride	2	4	0.005	~		~	~	~		~	~	ND		0.00116	0.00029	~		~	~
1,2-Dichloroethane (EDC)	0.9	3	0.005	~		~	~	~		~	~	ND		0.00116	0.000255	~		~	~
Benzene	2	5	0.005	~		~	~	~		~	~	ND		0.00116	0.000313	~		~	~
Trichloroethene	3	10	0.01	~		~	~	~		~	~	ND		0.00116	0.000394	~		~	~
1,2-Dichloropropane	2	5	0.005	~		~	~	~		~	~	ND		0.00116	0.000302	~		~	~
1,4-Dioxane	NS	NS	NS	~		~	~	~		~	~	ND		0.232	0.013	~		~	~
Bromodichloromethane	1	3	0.005	~		~	~	~		~	~	ND		0.00116	0.000244	~		~	~
cis-1,3-Dichloropropene	NS	NS	NS	~		~	~	~		~	~	ND		0.00116	0.000244	~		~	~
4-Methyl-2-pentanone (MIBK)	NS	NS	NS	~		~	~	~		~	~	ND		0.00116	0.000244	~		~	~
Toluene	6300	91000	7	~		~	~	~		~	~	ND		0.00116	0.00029	~		~	~
trans-1,3-Dichloropropene	NS	NS	NS	~		~	~	~		~	~	ND		0.00116	0.000255	~		~	~
1,1,2-Trichloroethane	2	6	0.02	~		~	~	~		~	~	ND		0.00116	0.000244	~		~	~
Tetrachloroethene	43	1500	0.005	~		~	~	~		~	~	ND		0.00116	0.00029	~		~	~
2-Hexanone	NS	NS	NS	~		~	~	~		~	~	ND		0.00116	0.000313	~		~	~
Dibromochloromethane	3	8	0.005	~		~	~	~		~	~	ND		0.00116	0.000244	~		~	~
1,2-Dibromoethane (EDB)*	0.008	0.04	0.005	~		~	~	~		~	~	ND		0.00116	0.000232	~		~	~
Chlorobenzene	510	7400	0.6	~		~	~	~		~	~	ND		0.00116	0.000325	~		~	~
Ethylbenzene	7800	110000	13	~		~	~	~		~	~	ND		0.00116	0.000325	~		~	~
Total Xylenes	12000	170000	19	~		~	~	~		~	~	ND		0.00232	0.00093	~		~	~
Styrene	90	260	3	~		~	~	~		~	~	ND		0.00116	0.000255	~		~	~
Bromoform	81	280	0.03	~		~	~	~		~	~	ND		0.00116	0.000278	~		~	~
Isopropylbenzene	NS	NS	NS	~		~	~	~		~	~	ND		0.00232	0.000336	~		~	~
1,1,2,2-Tetrachloroethane	1	3	0.007	~		~	~	~		~	~	ND		0.00116	0.000267	~		~	~
1,3-Dichlorobenzene	5300	59000	19	~		~	~	~		~	~	ND		0.00116	0.000278	~		~	~
1,4-Dichlorobenzene	5	13	2	~		~	~	~		~	~	ND		0.00116	0.000232	~		~	~
1,2-Dichlorobenzene	5300	59000	17	~		~	~	~		~	~	ND		0.00116	0.000325	~		~	~
1,2-Dibromo-3-chloropropane*	0.08	0.2	0.005	~		~	~	~		~	~	ND		0.00116	0.000232	~		~	~
1,2,4-Trichlorobenzene	73	820	0.7	~		~	~	~		~	~	ND		0.00116	0.000302	~		~	~
1,2,3-Trichlorobenzene	NS	NS	NS	~		~	~	~		~	~	ND		0.00116	0.000371	~		~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	NS	~		~	~	~		~	~	ND		0.00116	0.000429	~		~	~
Methyl acetate	78000	NS	22	~		~	~	~		~	~	ND		0.00116	0.000255	~		~	~
Cyclohexane	NS	NS	NS	~		~	~	~		~	~	ND		0.0058	0.000452	~		~	~
Methylcyclohexane	NS	NS	NS	~		~	~	~		~	~	ND		0.00116	0.000418	~		~	~
1,3-Dichloropropene (cis- and trans	2	7	0.005	~		~	~	~		~	~	ND		0.00116	0.000255	~		~	~
TOTAL VO's:	NS	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~
TOTAL TIC's:	NS	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~
TOTAL VO's & TIC's:	NS	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~
Semivolatiles - BN (mg/Kg)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Benzaldehyde	6100	68000	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Bis(2-chloroethyl) ether	0.4	2	0.2	~		~	~	~		~	~	ND		0.039	0.028	~		~	~
Bis(2-chloroisopropyl) ether	23	67	5	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
N-Nitrosodi-n-propylamine	0.2	0.3	0.2	~		~	~	~		~	~	ND		0.039	0.026	~		~	~
Acetophenone	2	5	3	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Hexachloroethane	12	48	0.2	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Nitrobenzene	5	14	0.2	~		~	~	~		~	~	ND		0.039	0.039	~		~	~
Isophorone	510	2000	0.2	~		~	~	~		~	~	ND		0.039	0.026	~		~	~
Bis(2-chloroethoxy) methane	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.033	~		~	~
Naphthalene	6	17	25	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
4-Chloroaniline	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.037	~		~	~
Hexachlorobutadiene	6	25	0.9	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Caprolactam	31000	340000	12	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
2-Methylnaphthalene	230	2400	8	~		~	~	~		~	~	ND		0.039	0.033	~		~	~
Hexachlorocyclopentadiene	45	110	320	~		~	~	~		~	~	ND		0.039	0.026	~		~	~
1,1'-Biphenyl	61	240	140	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
2-Chloronaphthalene	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.037	~		~	~
2-Nitroaniline	39	23000	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Dimethyl phthalate	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
2,6-Dinitrotoluene	0.7	3	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Acenaphthylene	NS	300000	NS	~		~	~	~		~	~	ND		0.039	0.028	~		~	~
3-Nitroaniline	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.033	~		~	~
Acenaphthene	3400	37000	110	~		~	~	~		~	~	ND		0.039	0.032	~		~	~
2,4-Dinitrotoluene	120	1400	0.3	~		~	~	~		~	~	ND		0.039	0.026	~		~	~
Dibenzofuran	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Diethyl phthalate	49000	550000	88	~		~	~	~		~	~	ND		0.039	0.029	~		~	~
Fluorene	2300	24000	170	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
4-Chlorophenyl phenyl ether	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
4-Nitroaniline	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.032	~		~	~
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
N-Nitrosodiphenylamine	99	390	0.4	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
4-Bromophenyl phenyl ether	NS	NS	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Hexachlorobenzene	0.3	1	0.2	~		~	~	~		~	~	ND		0.039	0.032	~		~	~
Atrazine	210	2400	0.2	~		~	~	~		~	~	ND		0.039	0.028	~		~	~
Phenanthrene	NS	300000	NS	~		~	~	~		~	~	ND		0.039	0.026	~		~	~
Anthracene	17000	30000	2400	~		~	~	~		~	~	ND		0.039	0.039	~		~	~
Carbazole	24	96	NS	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Di-n-butyl phthalate	6100	68000	760	~		~	~	~		~	~	ND		0.039	0.035	~		~	~
Fluoranthene	2300	24000	1300	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Pyrene	1700	18000	840	~		~	~	~		~	~	ND		0.039	0.029	~		~	~
Butyl benzyl phthalate	1200	14000	230	~		~	~	~		~	~	ND		0.039	0.025	~		~	~
3,3'-Dichlorobenzidine	1	4	0.2	~		~	~	~		~	~	ND		0.039	0.028	~		~	~
Benzo[a]anthracene	5	17	0.8	~		~	~	~		~	~	ND		0.039	0.038	~		~	~
Chrysene	450	1700	80	~		~	~	~		~	~	ND		0.039	0.027	~		~	~
Bis(2-ethylhexyl) phthalate	35	140	1200	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Di-n-octyl phthalate	2400	27000	3300	~		~	~	~		~	~	ND		0.039	0.035	~		~	~
Benzo[b]fluoranthene	5	17	2	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Benzo[k]fluoranthene	45	170	25	~		~	~	~		~	~	ND		0.039	0.037	~		~	~
Benzo[a]pyrene	0.5	2	0.2	~		~	~	~		~	~	ND		0.039	0.024	~		~	~
Indeno[1,2,3-cd]pyrene	5	17	7	~		~	~	~		~	~	ND		0.039	0.026	~		~	~
Dibenz[a,h]anthracene	0.5	2	0.8	~		~	~	~		~	~	ND		0.039	0.029	~		~	~
Benzo[g,h,i]perylene	380000	30000	NS	~		~	~	~		~	~	ND		0.039	0.035	~		~	~
Dinitrotoluene (2,4- and 2,6-)	0.7	3	0.2	~		~	~	~		~	~	ND		0.039	0.026	~		~	~
TOTAL BN'S:	NS	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~
TOTAL TIC's:	NS	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~
TOTAL BN'S & TIC's:	NS	NS	NS	~		~	~	~		~	~	ND			NA	~		~	~

TABLE 4
Summary of Soil Sample Analyses
Transformer House (AOC-9) and Northern Rail Siding (AOC-12)
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			AOC-9-1				AOC-9-2				AOC-12-3				AOC-12-4			
Lab ID:	Residential	Non-Residential	Default IGW	09198-001				09198-002				09198-003				09198-004			
Date Sampled:	SRS	SRS	Screening	09/18/2013				09/18/2013				09/18/2013				09/18/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)	0 - 0.5				0 - 0.5				1.5 - 2				2 - 2.5			
PCB's (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
Aroclor-1221	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
Aroclor-1232	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
Aroclor-1242	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
Aroclor-1248	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
Aroclor-1254	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
Aroclor-1260	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
Aroclor-1262	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
Aroclor-1268	**NS**	**NS**	**NS**	ND		0.048	0.019	ND		0.042	0.017	ND		0.046	0.018	~		~	~
PCBs	**0.2**	**1**	**0.2**	ND			NA	ND			NA	ND			NA	~		~	~
Pesticides (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	**0.1**	**0.5**	**0.002**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
beta-BHC	**0.4**	**2**	**0.002**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
gamma-BHC (Lindane)	**0.4**	**2**	**0.002**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
delta-BHC	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Heptachlor	**0.1**	**0.7**	**0.5**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Aldrin	**0.04**	**0.2**	**0.2**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Heptachlor epoxide	**0.07**	**0.3**	**0.01**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Endosulfan I	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
4,4'-DDE	**2**	**9**	**18**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Dieldrin	**0.04**	**0.2**	**0.003**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Endrin	**23**	**340**	**1**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Endosulfan II	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
4,4'-DDD	**3**	**13**	**4**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Endrin aldehyde	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Endosulfan sulfate	**470**	**6800**	**2**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
4,4'-DDT	**2**	**8**	**11**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Endrin ketone	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Methoxychlor	**390**	**5700**	**160**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
alpha-Chlordane	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
gamma-Chlordane	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Toxaphene	**0.6**	**3**	**0.3**	~		~	~	~		~	~	ND		0.00518	0.00248	~		~	~
Endosulfan (I and II)	**470**	**6800**	**4**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Chlordane (alpha and gamma)	**0.2**	**1**	**0.05**	~		~	~	~		~	~	ND		0.000414	0.000207	~		~	~
Herbicides (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dalapon	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.021	0.00822	~		~	~
Dicamba	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.021	0.00822	~		~	~
2,4-D	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.021	0.00822	~		~	~
2,4,5-TP (Silvex)	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.021	0.00822	~		~	~
2,4,5-T	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.021	0.00822	~		~	~
2,4-DB	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.021	0.00822	~		~	~
Dinoseb	**NS**	**NS**	**NS**	~		~	~	~		~	~	ND		0.021	0.00822	~		~	~
NJ-EPH-C40 (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C40	**NS**	**NS**	**NS**	~		~	~	~		~	~	30.6	J	44.8	11.2	32.9	J	44.8	11.2
Metals (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aluminum	**78000**	**NS**	**6000**	~		~	~	~		~	~	**32500**		136	67.9	~		~	~
Antimony	**31**	**450**	**6**	~		~	~	~		~	~	ND		1.36	0.340	~		~	~
Arsenic	**19**	**19**	**19**	~		~	~	~		~	~	3.39		0.679	0.340	~		~	~
Barium	**16000**	**59000**	**2100**	~		~	~	~		~	~	167		13.6	3.40	~		~	~
Beryllium	**16**	**140**	**0.7**	~		~	~	~		~	~	**1.74**		0.476	0.272	~		~	~
Cadmium	**78**	**78**	**2**	~		~	~	~		~	~	ND		0.679	0.170	~		~	~
Calcium	**NS**	**NS**	**NS**	~		~	~	~		~	~	2020		67.9	34.0	~		~	~
Chromium	**NS**	**NS**	**NS**	~		~	~	~		~	~	29.6		2.72	0.679	~		~	~
Cobalt	**1600**	**590**	**90**	~		~	~	~		~	~	19.9		2.72	0.679	~		~	~
Copper	**3100**	**45000**	**11000**	~		~	~	~		~	~	15.5		2.72	0.679	~		~	~
Iron	**NS**	**NS**	**NS**	~		~	~	~		~	~	26700		34.0	17.0	~		~	~
Lead	**400**	**800**	**90**	~		~	~	~		~	~	21.8		0.679	0.170	~		~	~
Magnesium	**NS**	**NS**	**NS**	~		~	~	~		~	~	4290		67.9	17.0	~		~	~
Manganese	**11000**	**5900**	**65**	~		~	~	~		~	~	**465**		1.36	0.340	~		~	~
Mercury	**23**	**65**	**0.1**	~		~	~	~		~	~	0.062		0.015	0.00721	~		~	~
Nickel	**1600**	**23000**	**48**	~		~	~	~		~	~	31.2		1.36	0.679	~		~	~
Potassium	**NS**	**NS**	**NS**	~		~	~	~		~	~	2240		67.9	17.0	~		~	~
Selenium	**390**	**5700**	**11**	~		~	~	~		~	~	ND		2.72	1.36	~		~	~
Silver	**390**	**5700**	**1**	~		~	~	~		~	~	ND		0.679	0.170	~		~	~
Sodium	**NS**	**NS**	**NS**	~		~	~	~		~	~	456		136	34.0	~		~	~
Thallium	**NS**	**NS**	**3**	~		~	~	~		~	~	0.201	J	0.679	0.170	~		~	~
Vanadium	**78**	**1100**	**NS**	~		~	~	~		~	~	42.5		2.72	0.679	~		~	~
Zinc	**23000**	**110000**	**930**	~		~	~	~		~	~	61.0		2.72	2.72	~		~	~

Notes:

Shaded results exceed the NJDEP Default Impact to Groundwater Soil Screening Levels
Shaded results exceed the NJDEP Residential Soil Remediation Standards
Shaded results exceed the NJDEP Non-Residential Soil Remediation Standards
BOLD RL = Reporting limit exceeds applicable standard.
BOLD MDL = Method detection limit exceeds applicable standard.
NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
D = The compound was reported from the Diluted analysis

TABLE 5
Summary of Concrete Sample Analyses
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			C-1 WAREHOUSE 1				C-2 LOAD DOCK 1				C-3 BLD 2				C-4 IMP. METALS				C-5 SPHINX ELEC.			
Lab ID:				09196-001				09196-002				09196-003				09196-004				09196-005			
Date Sampled:	Residential SRS	Non-Residential SRS	Default IGW Screening	09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)																				
Semivolatiles - BN (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Benzaldehyde	**6100**	**68000**	**NS**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
Bis(2-chloroethyl) ether	**0.4**	**2**	**0.2**	ND		0.033	0.023	ND		0.033	0.023	ND		0.033	0.023	ND		**0.332**	0.232 *	ND		0.033	0.023
Bis(2-chloroisopropyl) ether	**23**	**67**	**5**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
N-Nitrosodi-n-propylamine	**0.2**	**0.3**	**0.2**	ND		0.033	0.022	ND		0.033	0.022	ND		0.033	0.022	ND		**0.332**	0.219 *	ND		0.033	0.022
Acetophenone	**2**	**5**	**3**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
Hexachloroethane	**12**	**48**	**0.2**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		**0.332**	0.199	ND		0.033	0.020
Nitrobenzene	**5**	**14**	**0.2**	ND		0.033	0.032	ND		0.033	0.032	ND		0.033	0.032	ND		**0.332**	**0.325**	ND		0.033	0.033
Isophorone	**510**	**2000**	**0.2**	ND		0.033	0.022	ND		0.033	0.021	ND		0.033	0.022	ND		**0.332**	0.216 *	ND		0.033	0.022
Bis(2-chloroethoxy) methane	**NS**	**NS**	**NS**	ND		0.033	0.028	ND		0.033	0.028	ND		0.033	0.028	ND		0.332	0.279	ND		0.033	0.028
Naphthalene	**6**	**17**	**25**	ND		0.033	0.020	0.028	J	0.033	0.020	0.024	J	0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
4-Chloroaniline	**NS**	**NS**	**NS**	ND		0.033	0.031	ND		0.033	0.031	ND		0.033	0.031	ND		0.332	0.312	ND		0.033	0.031
Hexachlorobutadiene	**6**	**25**	**0.9**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
Caprolactam	**31000**	**340000**	**12**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
2-Methylnaphthalene	**230**	**2400**	**8**	0.052		0.033	0.027	0.095		0.033	0.027	ND		0.033	0.027	ND		0.332	0.275	ND		0.033	0.028
Hexachlorocyclopentadiene	**45**	**110**	**320**	ND		0.033	0.022	ND		0.033	0.022	ND		0.033	0.022	ND		0.332	0.222	ND		0.033	0.022
1,1'-Biphenyl	**61**	**240**	**140**	ND		0.033	0.020	0.020	J	0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
2-Chloronaphthalene	**NS**	**NS**	**NS**	ND		0.033	0.031	ND		0.033	0.031	ND		0.033	0.031	ND		0.332	0.312	ND		0.033	0.031
2-Nitroaniline	**39**	**23000**	**NS**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
Dimethyl phthalate	**NS**	**NS**	**NS**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
2,6-Dinitrotoluene	**0.7**	**3**	**NS**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
Acenaphthylene	**NS**	**300000**	**NS**	ND		0.033	0.023	0.094		0.033	0.023	ND		0.033	0.023	ND		0.332	0.232	ND		0.033	0.023
3-Nitroaniline	**NS**	**NS**	**NS**	ND		0.033	0.027	ND		0.033	0.027	ND		0.033	0.027	ND		0.332	0.275	ND		0.033	0.028
Acenaphthene	**3400**	**37000**	**110**	ND		0.033	0.026	0.094		0.033	0.026	ND		0.033	0.026	ND		0.332	0.265	ND		0.033	0.027
2,4-Dinitrotoluene	**120**	**1400**	**0.3**	ND		0.033	0.022	ND		0.033	0.021	ND		0.033	0.022	ND		0.332	0.216	ND		0.033	0.022
Dibenzofuran	**NS**	**NS**	**NS**	ND		0.033	0.020	0.115		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
Diethyl phthalate	**49000**	**550000**	**88**	ND		0.033	0.024	ND		0.033	0.024	ND		0.033	0.025	ND		0.332	0.245	ND		0.033	0.025
Fluorene	**2300**	**24000**	**170**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
4-Chlorophenyl phenyl ether	**NS**	**NS**	**NS**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
4-Nitroaniline	**NS**	**NS**	**NS**	ND		0.033	0.027	ND		0.033	0.027	ND		0.033	0.027	ND		0.332	0.272	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	**NS**	**NS**	**NS**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
N-Nitrosodiphenylamine	**99**	**390**	**0.4**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		**0.332**	0.199	ND		0.033	0.020
4-Bromophenyl phenyl ether	**NS**	**NS**	**NS**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
Hexachlorobenzene	**0.3**	**1**	**0.2**	ND		0.033	0.026	ND		0.033	0.026	ND		0.033	0.026	ND		**0.332**	**0.265**	ND		0.033	0.027
Atrazine	**210**	**2400**	**0.2**	ND		0.033	0.023	ND		0.033	0.023	ND		0.033	0.023	ND		**0.332**	0.232	ND		0.033	0.023
Phenanthrene	**NS**	**300000**	**NS**	0.444		0.033	0.022	1.22		0.033	0.022	0.234		0.033	0.022	0.418	D	0.332	0.219	0.156		0.033	0.022
Anthracene	**17000**	**30000**	**2400**	0.034		0.033	0.033	0.129		0.033	0.033	ND		0.033	0.033	0.416	D	0.332	0.332	ND		0.033	0.033
Carbazole	**24**	**96**	**NS**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		0.332	0.199	ND		0.033	0.020
Di-n-butyl phthalate	**6100**	**68000**	**760**	3.84		0.033	0.030	19.7	D	0.164	0.148	ND		0.033	0.030	0.577	D	0.332	0.298	0.900		0.033	0.030
Fluoranthene	**2300**	**24000**	**1300**	0.293		0.033	0.020	1.02		0.033	0.020	0.469		0.033	0.020	0.578	D	0.332	0.199	0.344		0.033	0.020
Pyrene	**1700**	**18000**	**840**	0.337		0.033	0.024	1.15		0.033	0.024	0.398		0.033	0.025	0.852	D	0.332	0.245	0.261		0.033	0.025
Butyl benzyl phthalate	**1200**	**14000**	**230**	ND		0.033	0.021	3.45		0.033	0.021	1.00		0.033	0.021	ND		0.332	0.212	ND		0.033	0.021
3,3'-Dichlorobenzidine	**1**	**4**	**0.2**	ND		0.033	0.023	ND		0.033	0.023	0.126		0.033	0.023	ND		**0.332**	0.232 *	ND		0.033	0.023
Benzo[a]anthracene	**5**	**17**	**0.8**	0.189		0.033	0.032	0.471		0.033	0.032	ND		0.033	0.032	ND		0.332	0.318	0.054		0.033	0.032
Chrysene	**450**	**1700**	**80**	0.311		0.033	0.023	0.926		0.033	0.022	0.087		0.033	0.023	ND		0.332	0.225	0.192		0.033	0.023
Bis(2-ethylhexyl) phthalate	**35**	**140**	**1200**	3.88		0.033	0.020	13.4	D	0.164	0.098	0.057		0.033	0.020	12.2	D	0.332	0.199	19.3	D	0.166	0.100
Di-n-octyl phthalate	**2400**	**27000**	**3300**	ND		0.033	0.029	ND		0.033	0.029	0.724		0.033	0.030	ND		0.332	0.295	ND		0.033	0.030
Benzo[b]fluoranthene	**5**	**17**	**2**	ND		0.033	0.020	ND		0.033	0.020	0.470		0.033	0.020	ND		0.332	0.202	ND		0.033	0.020
Benzo[k]fluoranthene	**45**	**170**	**25**	ND		0.033	0.031	ND		0.033	0.031	0.406		0.033	0.031	ND		0.332	0.312	ND		0.033	0.031
Benzo[a]pyrene	**0.5**	**2**	**0.2**	ND		0.033	0.020	ND		0.033	0.020	ND		0.033	0.020	ND		**0.332**	0.199	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	**5**	**17**	**7**	ND		0.033	0.022	ND		0.033	0.022	ND		0.033	0.022	ND		0.332	0.219	ND		0.033	0.022
Dibenz[a,h]anthracene	**0.5**	**2**	**0.8**	ND		0.033	0.024	ND		0.033	0.024	ND		0.033	0.024	ND		0.332	0.242	ND		0.033	0.024
Benzo[g,h,i]perylene	**380000**	**30000**	**NS**	ND		0.033	0.030	ND		0.033	0.030	ND		0.033	0.030	ND		0.332	0.298	ND		0.033	0.030
Dinitrotoluene (2,4- and 2,6-)	**0.7**	**3**	**0.2**	ND		0.033	0.022	ND		0.033	0.021	ND		0.033	0.022	ND		**0.332**	0.216 *	ND		0.033	0.022
TOTAL BN'S:	**0.7**	**3**	**0.2**	9.38			NA	41.9	DJ		NA	3.99	J		NA	15.0	D		NA	21.2	D		NA
TOTAL TIC's:	**NS**	**NS**	**NS**	17.1			NA	45.7			NA	53.7			NA	89.1			NA	12.7			NA
TOTAL BN'S & TIC's:	**NS**	**NS**	**NS**	26.5			NA	87.6	DJ		NA	57.7	J		NA	104	D		NA	33.9	D		NA
PCB's (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	**NS**	**NS**	**NS**	ND		0.00163	0.000652	ND		0.0033	0.00132	ND		0.00326	0.0013	ND		0.00827	0.00331	ND		0.00331	0.00132
Aroclor-1221	**NS**	**NS**	**NS**	ND		0.00163	0.000652	ND		0.0033	0.00132	ND		0.00326	0.0013	ND		0.00827	0.00331	ND		0.00331	0.00132
Aroclor-1232	**NS**	**NS**	**NS**	ND		0.00163	0.000652	ND		0.0033	0.00132	ND		0.00326	0.0013	ND		0.00827	0.00331	ND		0.00331	0.00132
Aroclor-1242	**NS**	**NS**	**NS**	ND		0.00163	0.000652	ND		0.0033	0.00132	ND		0.00326	0.0013	ND		0.00827	0.00331	ND		0.00331	0.00132
Aroclor-1248	**NS**	**NS**	**NS**	ND		0.00163	0.000652	ND		0.0033	0.00132	ND		0.00326	0.0013	ND		0.00827	0.00331	ND		0.00331	0.00132
Aroclor-1254	**NS**	**NS**	**NS**	ND		0.00163	0.000652	ND		0.0033	0.00132	ND		0.00326	0.0013	ND		0.00827	0.00331	ND		0.00331	0.00132
Aroclor-1260	**NS**	**NS**	**NS**	ND		0.00163	0.000652	ND		0.0033	0.00132	ND		0.00326	0.0013	ND		0.00827	0.00331	ND		0.00331	0.00132
Aroclor-1262	**NS**	**NS**	**NS**	0.075		0.00163	0.000652	0.095	D	0.0033	0.00132	0.179	D	0.00326	0.0013	0.793	D	0.00827	0.00331	0.384	D	0.00331	0.00132
Aroclor-1268	**NS**	**NS**	**NS**	ND		0.00163	0.000652	ND		0.0033	0.00132	ND		0.00326	0.0013	ND		0.00827	0.00331	ND		0.00331	0.00132
PCBs	**0.2**	**1**	**0.2**	0.075			NA	0.095	D		NA	0.179	D		NA	**0.793**	D		NA	**0.384**	D		NA
Pesticides (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	**0.1**	**0.5**	**0.002**	0.000399		0.000326	0.000163	0.000388		0.00033	0.000165	ND		0.000326	0.000163	ND		**0.00661**	**0.00331**	ND		0.00033	0.000165
beta-BHC	**0.4**	**2**	**0.002**	**0.00278**		0.000326	0.000163	0.00174		0.00033	0.000165	ND		0.000326	0.000163	ND		**0.00661**	**0.00331**	ND		0.00033	0.000165
gamma-BHC (Lindane)	**0.4**	**2**	**0.002**	**0.013**		0.000326	0.000163	**0.018**		0.00033	0.000165	0.00193		0.000326	0.000163	ND		**0.00661**	**0.00331**	ND		0.00033	0.000165
delta-BHC	**NS**	**NS**	**NS**	0.00115		0.000326	0.000163	0.00108		0.00033	0.000165	ND		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
Heptachlor	**0.1**	**0.7**	**0.5**	ND		0.000326	0.000163	ND		0.00033	0.000165	ND		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
Aldrin	**0.04**	**0.2**	**0.2**	0.00155		0.000326	0.000163	0.00111		0.00033	0.000165	ND		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
Heptachlor epoxide	**0.07**	**0.3**	**0.01**	ND		0.000326	0.000163	0.00365		0.00033	0.000165	0.00166		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
Endosulfan I	**NS**	**NS**	**NS**	ND		0.000326	0.000163	ND		0.00033	0.000165	ND		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
4,4'-DDE	**2**	**9**	**18**	0.055	D	0.000654	0.000327	0.086	D	0.00165	0.000825	0.034		0.000326	0.000163	0.031	D	0.00661	0.00331	0.115	D	0.00165	0.000827
Dieldrin	**0.04**	**0.2**	**0.003**	0.00262		0.000326	0.000163	**0.00504**		0.00033	0.000165	0.00342 *		0.000326	0.000163	ND		**0.00661**	0.00331 *	ND		0.00033	0.000165
Endrin	**23**	**340**	**1**	ND		0.000326	0.000163	ND		0.00033	0.000165	ND		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
Endosulfan II	**NS**	**NS**	**NS**	ND		0.000326	0.000163	ND		0.00033	0.000165	ND		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
4,4'-DDD	**3**	**13**	**4**	0.00674		0.000326	0.000163	0.00964		0.00033	0.000165	0.004		0.000326	0.000163	ND		0.00661	0.00331	0.00692		0.00033	0.000165
Endrin aldehyde	**NS**	**NS**	**NS**	ND		0.000326	0.000163	ND		0.00033	0.000165	ND		0.000326	0.000163	0.052	D	0.00661	0.00331	ND		0.00033	0.000165
Endosulfan sulfate	**470**	**6800**	**2**	ND		0.000326	0.000163	ND		0.00033	0.000165	ND		0.000326	0.000163	0.031	D	0.00661	0.00331	ND		0.00033	0.000165
4,4'-DDT	**2**	**8**	**11**	0.097	D	0.000654	0.000327	0.133	D	0.00165	0.000825	0.051	D	0.000652	0.000326	0.033	D	0.00661	0.00331	0.086	D	0.00165	0.000827
Endrin ketone	**NS**	**NS**	**NS**	ND		0.000326	0.000163	ND		0.00033	0.000165	ND		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
Methoxychlor	**390**	**5700**	**160**	0.037		0.000326	0.000163	0.065	D	0.00165	0.000825	0.021		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
alpha-Chlordane	**NS**	**NS**	**NS**	0.00463		0.000326	0.000163	0.010		0.00033	0.000165	0.00264		0.000326	0.000163	0.0042	DJ	0.00661	0.00331	ND		0.00033	0.000165
gamma-Chlordane	**NS**	**NS**	**NS**	0.00578		0.000326	0.000163	0.017		0.00033	0.000165	0.00275		0.000326	0.000163	0.00443	DJ	0.00661	0.00331	ND		0.00033	0.000165
Toxaphene	**0.6**	**3**	**0.3**	ND		0.00408	0.00196	ND		0.00413	0.00198	ND		0.00408	0.00196	ND		0.083	0.040	ND		0.00413	0.00198
Endosulfan (I and II)	**470**	**6800**	**4**	ND		0.000326	0.000163	ND		0.00033	0.000165	ND		0.000326	0.000163	ND		0.00661	0.00331	ND		0.00033	0.000165
Chlordane (alpha and gamma)	**0.2**	**1**	**0.05**	0.010		0.000326	0.000163	0.027		0.00033	0.000165	0.00539		0.000326	0.000163	0.00863	D	0.00661	0.00331	ND		0.00033	0.000165
Herbicides (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dalapon	**NS**	**NS**	**NS**	ND		0.016	0.00646	ND		0.016	0.00646	ND		0.016	0.00654	ND		0.016	0.00638	ND		1.59	0.636
Dicamba	**NS**	**NS**	**NS**	ND		0.016	0.00646	ND		0.016	0.00646	ND		0.016	0.00654	ND		0.016	0.00638	ND		1.59	0.636
2,4-D	**NS**	**NS**	**NS**	0.103		0.016	0.00646	0.048		0.016	0.00646	0.049		0.016	0.00654	ND		0.016	0.00638	ND		1.59	0.636
2,4,5-TP (Silvex)	**NS**	**NS**	**NS**	ND		0.016	0.00646	ND		0.016	0.00646	ND		0.016	0.00654	ND		0.016	0.00638	ND		1.59	0.636
2,4,5-T	**NS**	**NS**	**NS**	0.099		0.016	0.00646	0.037		0.016	0.00646	ND		0.016	0.00654	ND		0.016	0.00638	ND		1.59	0.636
2,4-DB	**NS**	**NS**	**NS**	ND		0.016	0.00646	ND		0.016	0.00646	ND		0.016	0.00654	ND		0.016	0.00638	ND		1.59	0.636
Dinoseb	**NS**	**NS**	**NS**	ND		0.016	0.00646	0.015	J	0.016	0.00646	ND		0.016	0.00654	ND		0.016	0.00638	19.8	D	3.18	1.27

TABLE 5
Summary of Concrete Sample Analyses
50 Division Avenue, Millington, New Jersey

Sample #:	NJDEP Soil Remediation Standards			C-1 WAREHOUSE 1				C-2 LOAD DOCK 1				C-3 BLD 2				C-4 IMP. METALS				C-5 SPHINX ELEC.			
Lab ID:	Residential	Non-Residential	Default IGW	09196-001				09196-002				09196-003				09196-004				09196-005			
Date Sampled:	SRS	SRS	Screening	09/17/2013				09/17/2013				09/17/2013				09/17/2013				09/17/2013			
Depth (ft):	(mg/Kg)	(mg/Kg)	Level (mg/Kg)																				
NJ-EPH-C40 (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C40	NS	NS	NS	995		34.2	8.55	~		~	~	~		~	~	~		~	~	~		~	~
NJ-EPH-Fractionated (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C12 Aliphatics	NS	NS	NS	~		~	~	ND		57.6	28.8	ND		11.7	5.87	ND		112	55.9	ND		11.9	5.94
C12-C16 Aliphatics	NS	NS	NS	~		~	~	67.1	D	38.4	28.8	ND		7.83	5.87	ND		74.5	55.9	ND		7.92	5.94
C16-C21 Aliphatics	NS	NS	NS	~		~	~	1230	D	57.6	19.2	276		11.7	3.91	659	D	112	37.2	130		11.9	3.96
C21-C40 Aliphatics	NS	NS	NS	~		~	~	2100	D	192	19.2	3110		39.1	3.91	12300	D	372	37.2	2290		39.6	3.96
Total Aliphatics	NS	NS	NS	~		~	~	3400		192	28.8	3390		39.1	5.87	13000		372	55.9	2420		39.6	5.94
C10-C12 Aromatics	NS	NS	NS	~		~	~	ND		7.68	3.84	ND		7.83	3.91	ND		7.45	3.72	ND		7.92	3.96
C12-C16 Aromatics	NS	NS	NS	~		~	~	4.29	J	11.5	3.84	ND		11.7	3.91	ND		11.2	3.72	ND		11.9	3.96
C16-C21 Aromatics	NS	NS	NS	~		~	~	161		19.2	3.84	61.3		19.6	3.91	103		18.6	3.72	20.8		19.8	3.96
C21-C36 Aromatics	NS	NS	NS	~		~	~	219		30.7	3.84	271		31.3	3.91	928		29.8	3.72	202		31.7	3.96
Total Aromatics	NS	NS	NS	~		~	~	384	J	30.7	3.84	332		31.3	3.91	1030		29.8	3.72	223		31.7	3.96
Total NJ-EPH	NS	NS	NS	~		~	~	3780	DJ	192	28.8	3720		39.1	5.87	14000	D	372	55.9	2640		39.6	5.94
Metals (mg/Kg)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aluminum	78000	NS	6000	3570		10.5	5.23	**14800**		11.1	5.56	**7400**		10.9	5.43	5310		10.6	5.32	**6040**		10.9	5.43
Antimony	31	450	6	ND		1.05	0.262	ND		1.11	0.278	ND		1.09	0.272	ND		1.06	0.266	ND		1.09	0.272
Arsenic	19	19	19	10.1		0.523	0.262	10.6		0.556	0.278	1.55		0.543	0.272	2.06		0.532	0.266	8.64		0.543	0.272
Barium	16000	59000	2100	39.3		10.5	2.62	128		11.1	2.78	45.2		10.9	2.72	60.1		10.6	2.66	273		10.9	2.72
Beryllium	16	140	0.7	ND		0.366	0.209	0.566		0.389	0.222	ND		0.380	0.217	0.217	J	0.372	0.213	0.260	J	0.380	0.217
Cadmium	78	78	2	0.495	J	0.523	0.131	**3.96**		0.556	0.139	0.428	J	0.543	0.136	1.31		0.532	0.133	0.584	J	1.09	0.272
Calcium	NS	NS	NS	44100		52.3	26.2	75400		55.6	27.8	85200		54.3	27.2	64300		53.2	26.6	52400		54.3	27.2
Chromium	NS	NS	NS	19.3		2.09	0.523	45.3		2.22	0.556	17.8		2.17	0.543	28.1		2.13	0.532	31.4		2.17	0.543
Cobalt	1600	590	90	5.45		2.09	0.523	7.72		2.22	0.556	12.8		2.17	0.543	5.19		2.13	0.532	9.51		2.17	0.543
Copper	3100	45000	11000	81.1		2.09	0.523	23.0		2.22	0.556	19.4		2.17	0.543	30.6		2.13	0.532	93.7		2.17	0.543
Iron	NS	NS	NS	27300		26.2	13.1	12300		27.8	13.9	8710		27.2	13.6	9860		26.6	13.3	30900		27.2	13.6
Lead	400	800	90	44.1		0.523	0.131	85.7		0.556	0.139	23.5		0.543	0.136	38.0		0.532	0.133	8.38		0.543	0.136
Magnesium	NS	NS	NS	2900		52.3	13.1	3460		55.6	13.9	4310		54.3	13.6	5140		53.2	13.3	3470		54.3	13.6
Manganese	11000	5900	65	**263**		1.05	0.262	**131**		1.11	0.278	**158**		1.09	0.272	**214**		1.06	0.266	**351**		1.09	0.272
Mercury	23	65	0.1	**4.73**		0.118 *	0.057	**3.16**		0.012	0.00577	**3.50**		0.013	0.00619	**45.1**		**3.64**	**1.75**	**4.53**		0.123 *	0.059
Nickel	1600	23000	48	34.2		1.05	0.523	23.5		1.11	0.556	7.60		1.09	0.543	18.6		1.06	0.532	24.3		1.09	0.543
Potassium	NS	NS	NS	1080		52.3	13.1	1870		55.6	13.9	3010		54.3	13.6	4090		53.2	13.3	2900		54.3	13.6
Selenium	390	5700	11	ND		2.09	1.05	ND		2.22	1.11	ND		2.17	1.09	ND		2.13	1.06	ND		2.17	1.09
Silver	390	5700	1	0.294	J	0.523	0.131	ND		0.556	0.139	ND		0.543	0.136	ND		0.532	0.133	ND		0.543	0.136
Sodium	NS	NS	NS	1030		105	26.2	1710		111	27.8	2380		109	27.2	4520		106	26.6	2590		109	27.2
Thallium	NS	NS	3	ND		0.523	0.131	ND		0.556	0.139	ND		0.543	0.136	ND		0.532	0.133	ND		0.543	0.136
Vanadium	78	1100	NS	10.9		2.09	0.523	29.8		2.22	0.556	11.6		2.17	0.543	14.1		2.13	0.532	20.2		2.17	0.543
Zinc	23000	110000	930	33.9		2.09	2.09	209		2.22	2.22	75.2		2.17	2.17	95.0		2.13	2.13	39.9		2.17	2.17

Notes:

Shaded results exceed the NJDEP Default Impact to Groundwater Soil Screening Levels

Shaded results exceed the NJDEP Residential Soil Remediation Standards

Shaded results exceed the NJDEP Non-Residential Soil Remediation Standards

BOLD RL = Reporting limit exceeds applicable standard.

BOLD MDL = Method detection limit exceeds applicable standard.

NS = No Standard Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

D = The compound was reported from the Diluted analysis

* = Value does not exceed applicable standard when rounded to significant figure

TABLE 6
Summary of April 2015 Groundwater Results
50 Division Avenue, Millington, New Jersey

Sample #: / Lab ID: / Date Sampled:	HIGHER OF PQLs and GWQC (ug/L)	Vapor Intrusion GW Screening Levels (ug/L)	M-1R(11-30) 02637-001 04/02/2015				MW-1R (45-50) 03275-001 04/22/2015				MW-1R (45-50) 03535-001 04/30/2015				MW-2 03275-002 04/22/2015				MW-109 03275-003 04/22/2015			
Volatiles (ug/L)			**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dichlorodifluoromethane	**1000**	**1000**	ND		1.00	0.685	ND		1.00	0.685	ND		1.00	0.685	ND		1.00	0.685	ND		1.00	0.685
Chloromethane	**NS**	**240**	ND		1.00	0.493	ND		1.00	0.493	ND		1.00	0.493	ND		1.00	0.493	ND		1.00	0.493
Vinyl chloride	**1**	**1**	ND		1.00	0.463	0.560	J	1.00	0.463	ND		1.00	0.463	ND		1.00	0.463	ND		1.00	0.463
Bromomethane	**10**	**20**	ND		1.00	0.684	ND		1.00	0.684	ND		1.00	0.684	ND		1.00	0.684	ND		1.00	0.684
Chloroethane	**5**	**26000**	ND		1.00	0.829	ND		1.00	0.829	ND		1.00	0.829	ND		1.00	0.829	ND		1.00	0.829
Trichlorofluoromethane	**2000**	**2000**	ND		1.00	0.813	5.29		1.00	0.813	2.86		1.00	0.813	ND		1.00	0.813	ND		1.00	0.813
1,1-Dichloroethene	**1**	**260**	ND		1.00	0.491	ND		1.00	0.491	ND		1.00	0.491	ND		1.00	0.491	ND		1.00	0.491
Acetone	**6000**	**21000000**	ND		5.00	1.43	ND		5.00	1.43	ND		5.00	1.43	ND		5.00	1.43	ND		5.00	1.43
Carbon disulfide	**700**	**1500**	ND		1.00	0.505	ND		1.00	0.505	ND		1.00	0.505	ND		1.00	0.505	ND		1.00	0.505
Methylene chloride	**3**	**920**	ND		2.00	1.99	ND		2.00	1.99	ND		2.00	1.99	ND		2.00	1.99	ND		2.00	1.99
trans-1,2-Dichloroethene	**100**	**520**	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	**70**	**580**	ND		1.00	0.491	ND		1.00	0.491	ND		1.00	0.491	ND		1.00	0.491	ND		1.00	0.491
1,1-Dichloroethane	**50**	**50**	ND		1.00	0.358	ND		1.00	0.358	ND		1.00	0.358	ND		1.00	0.358	ND		1.00	0.358
cis-1,2-Dichloroethene	**70**	**NS**	ND		1.00	0.479	14.2		1.00	0.479	14.8		1.00	0.479	ND		1.00	0.479	ND		1.00	0.479
2-Butanone (MEK)	**300**	**2500000**	ND		1.00	0.872	ND		1.00	0.872	ND		1.00	0.872	ND		1.00	0.872	ND		1.00	0.872
Bromochloromethane	**NS**	**NS**	ND		1.00	0.636	ND		1.00	0.636	ND		1.00	0.636	ND		1.00	0.636	ND		1.00	0.636
Chloroform	**70**	**70**	ND		1.00	0.511	1.40		1.00	0.511	1.18		1.00	0.511	ND		1.00	0.511	ND		1.00	0.511
1,1,1-Trichloroethane	**30**	**13000**	ND		1.00	0.485	ND		1.00	0.485	ND		1.00	0.485	ND		1.00	0.485	ND		1.00	0.485
Carbon tetrachloride	**1**	**1**	ND		1.00	0.668	**1.63**		1.00	0.668	1.15 *		1.00	0.668	ND		1.00	0.668	ND		1.00	0.668
1,2-Dichloroethane (EDC)	**2**	**3**	ND		1.00	0.573	ND		1.00	0.573	ND		1.00	0.573	ND		1.00	0.573	ND		1.00	0.573
Benzene	**1**	**20**	0.637	J	1.00	0.388	ND		1.00	0.388	ND		1.00	0.388	ND		1.00	0.388	ND		1.00	0.388
Trichloroethene	**1**	**2**	**2.04 ***		1.00	0.357	**207**	D	**2.00**	0.714	**199**		1.00	0.357	ND		1.00	0.357	ND		1.00	0.357
1,2-Dichloropropane	**1**	**4**	ND		1.00	0.556	ND		1.00	0.556	ND		1.00	0.556	ND		1.00	0.556	ND		1.00	0.556
1,4-Dioxane	**0.4**	**NS**	ND		**200**	**82.7**	ND		**200**	**82.7**	ND		**200**	**82.7**	ND		**200**	**82.7**	ND		**200**	**82.7**
Bromodichloromethane	**1**	**2**	ND		1.00	0.526	ND		1.00	0.526	ND		1.00	0.526	ND		1.00	0.526	ND		1.00	0.526
cis-1,3-Dichloropropene	**NS**	**7**	ND		1.00	0.441	ND		1.00	0.441	ND		1.00	0.441	ND		1.00	0.441	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	**NS**	**900000**	ND		1.00	0.867	ND		1.00	0.867	ND		1.00	0.867	ND		1.00	0.867	ND		1.00	0.867
Toluene	**600**	**330000**	0.714	J	1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370
trans-1,3-Dichloropropene	**NS**	**7**	ND		1.00	0.416	ND		1.00	0.416	ND		1.00	0.416	ND		1.00	0.416	ND		1.00	0.416
1,1,2-Trichloroethane	**3**	**8**	ND		1.00	0.633	ND		1.00	0.633	ND		1.00	0.633	ND		1.00	0.633	ND		1.00	0.633
Tetrachloroethene	**1**	**31**	**7.34**		1.00	0.495	ND		1.00	0.495	ND		1.00	0.495	ND		1.00	0.495	ND		1.00	0.495
2-Hexanone	**300**	**NS**	ND		1.00	0.693	ND		1.00	0.693	ND		1.00	0.693	ND		1.00	0.693	ND		1.00	0.693
Dibromochloromethane	**1**	**6**	ND		1.00	0.516	ND		1.00	0.516	ND		1.00	0.516	ND		1.00	0.516	ND		1.00	0.516
1,2-Dibromoethane (EDB)	**0.03**	**0.4**	ND		**1.00**	**0.677**	ND		**1.00**	**0.677**	ND		**1.00**	**0.677**	ND		**1.00**	**0.677**	ND		**1.00**	**0.677**
Chlorobenzene	**50**	**770**	ND		1.00	0.395	ND		1.00	0.395	ND		1.00	0.395	ND		1.00	0.395	ND		1.00	0.395
Ethylbenzene	**700**	**700**	ND		1.00	0.420	ND		1.00	0.420	ND		1.00	0.420	ND		1.00	0.420	ND		1.00	0.420
Total Xylenes	**1000**	**8600**	ND		2.00	1.04	ND		2.00	1.04	ND		2.00	1.04	ND		2.00	1.04	ND		2.00	1.04
Styrene	**100**	**180000**	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370
Bromoform	**4**	**300**	ND		1.00	0.663	ND		1.00	0.663	ND		1.00	0.663	ND		1.00	0.663	ND		1.00	0.663
Isopropylbenzene	**700**	**NS**	ND		1.00	0.581	ND		1.00	0.581	ND		1.00	0.581	ND		1.00	0.581	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	**1**	**6**	ND		1.00	0.691	ND		1.00	0.691	ND		1.00	0.691	ND		1.00	0.691	ND		1.00	0.691
1,3-Dichlorobenzene	**600**	**NS**	ND		1.00	0.416	ND		1.00	0.416	ND		1.00	0.416	ND		1.00	0.416	ND		1.00	0.416
1,4-Dichlorobenzene	**75**	**75**	ND		1.00	0.409	ND		1.00	0.409	ND		1.00	0.409	ND		1.00	0.409	ND		1.00	0.409
1,2-Dichlorobenzene	**600**	**6800**	ND		1.00	0.401	ND		1.00	0.401	ND		1.00	0.401	ND		1.00	0.401	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	**0.02**	**NS**	ND		**1.00**	**0.930**	ND		**1.00**	**0.930**	ND		**1.00**	**0.930**	ND		**1.00**	**0.930**	ND		**1.00**	**0.930**
1,2,4-Trichlorobenzene	**9**	**130**	ND		1.00	0.483	ND		1.00	0.483	ND		1.00	0.483	ND		1.00	0.483	ND		1.00	0.483
1,2,3-Trichlorobenzene	**NS**	**NS**	ND		1.00	0.449	ND		1.00	0.449	ND		1.00	0.449	ND		1.00	0.449	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	**20000**	**3700**	ND		1.00	0.972	ND		1.00	0.972	ND		1.00	0.972	ND		1.00	0.972	ND		1.00	0.972
Methyl acetate	**7000**	**NS**	ND		1.00	0.897	ND		1.00	0.897	ND		1.00	0.897	ND		1.00	0.897	ND		1.00	0.897
Cyclohexane	**NS**	**16000**	ND		2.00	0.818	ND		2.00	0.818	ND		2.00	0.818	ND		2.00	0.818	ND		2.00	0.818
Methylcyclohexane	**NS**	**NS**	ND		1.00	0.773	ND		1.00	0.773	ND		1.00	0.773	ND		1.00	0.773	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	**1**	**7**	ND		1.00	0.441	ND		1.00	0.441	ND		1.00	0.441	ND		1.00	0.441	ND		1.00	0.441
TOTAL VO's:	**NS**	**NS**	10.7	J		NA	240	DJ		NA	219			NA	ND			NA	ND			NA
TOTAL TIC's:	**NS**	**NS**	57.7	JN		NA	5.90	J		NA	ND			NA	ND			NA	ND			NA
TOTAL VO's & TIC's:	**NS**	**NS**	68.4	JN		NA	246	DJ		NA	219			NA	ND			NA	ND			NA
Semivolatiles - BN (ug/L)			**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Benzaldehyde	**NS**	**NS**	ND		1.00	0.237	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroethyl) ether	**7**	**NS**	ND		1.00	0.131	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroisopropyl) ether	**300**	**NS**	ND		1.00	0.127	~		~	~	~		~	~	~		~	~	~		~	~
N-Nitrosodi-n-propylamine	**10**	**NS**	ND		1.00	0.186	~		~	~	~		~	~	~		~	~	~		~	~
Acetophenone	**700**	**NS**	ND		1.00	0.144	~		~	~	~		~	~	~		~	~	~		~	~
Hexachloroethane	**7**	**NS**	ND		1.00	0.150	~		~	~	~		~	~	~		~	~	~		~	~
Nitrobenzene	**6**	**NS**	ND		1.00	0.124	~		~	~	~		~	~	~		~	~	~		~	~
Isophorone	**40**	**NS**	ND		1.00	0.127	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroethoxy) methane	**NS**	**NS**	ND		1.00	0.113	~		~	~	~		~	~	~		~	~	~		~	~
Naphthalene	**300**	**300**	ND		1.00	0.123	~		~	~	~		~	~	~		~	~	~		~	~
4-Chloroaniline	**30**	**NS**	ND		1.00	0.135	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobutadiene	**1**	**1**	ND		1.00	0.167	~		~	~	~		~	~	~		~	~	~		~	~
Caprolactam	**4000**	**NS**	1.53		1.00	0.232	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	**30**	**NS**	ND		1.00	0.112	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorocyclopentadiene	**40**	**NS**	ND		1.00	0.158	~		~	~	~		~	~	~		~	~	~		~	~
1,1'-Biphenyl	**400**	**NS**	0.348	J	1.00	0.105	~		~	~	~		~	~	~		~	~	~		~	~
2-Chloronaphthalene	**600**	**NS**	ND		1.00	0.256	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitroaniline	**NS**	**NS**	ND		1.00	0.202	~		~	~	~		~	~	~		~	~	~		~	~
Dimethyl phthalate	**NS**	**NS**	ND		1.00	0.131	~		~	~	~		~	~	~		~	~	~		~	~
2,6-Dinitrotoluene	**10**	**NS**	ND		1.00	0.207	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthylene	**NS**	**NS**	ND		1.00	0.107	~		~	~	~		~	~	~		~	~	~		~	~
3-Nitroaniline	**NS**	**NS**	ND		1.00	0.156	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthene	**400**	**NS**	3.99		1.00	0.122	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrotoluene	**10**	**NS**	ND		1.00	0.164	~		~	~	~		~	~	~		~	~	~		~	~
Dibenzofuran	**NS**	**NS**	1.28		1.00	0.123	~		~	~	~		~	~	~		~	~	~		~	~
Diethyl phthalate	**6000**	**NS**	ND		1.00	0.127	~		~	~	~		~	~	~		~	~	~		~	~
Fluorene	**300**	**NS**	2.47		1.00	0.176	~		~	~	~		~	~	~		~	~	~		~	~
4-Chlorophenyl phenyl ether	**NS**	**NS**	ND		1.00	0.133	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitroaniline	**NS**	**NS**	ND		1.00	0.193	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	**NS**	**NS**	ND		1.00	0.222	~		~	~	~		~	~	~		~	~	~		~	~
N-Nitrosodiphenylamine	**10**	**NS**	ND		1.00	0.117	~		~	~	~		~	~	~		~	~	~		~	~
4-Bromophenyl phenyl ether	**NS**	**NS**	ND		1.00	0.182	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobenzene	**0.02**	**NS**	ND		**1.00**	**0.188**	~		~	~	~		~	~	~		~	~	~		~	~
Atrazine	**3**	**NS**	ND		1.00	0.259	~		~	~	~		~	~	~		~	~	~		~	~
Phenanthrene	**NS**	**NS**	4.44		1.00	0.111	~		~	~	~		~	~	~		~	~	~		~	~
Anthracene	**2000**	**NS**	1.23		1.00	0.155	~		~	~	~		~	~	~		~	~	~		~	~
Carbazole	**NS**	**NS**	1.27		1.00	0.119	~		~	~	~		~	~	~		~	~	~		~	~
Di-n-butyl phthalate	**700**	**NS**	ND		1.00	0.177	~		~	~	~		~	~	~		~	~	~		~	~
Fluoranthene	**300**	**NS**	0.783	J	1.00	0.118	~		~	~	~		~	~	~		~	~	~		~	~
Pyrene	**200**	**NS**	0.646	J	1.00	0.142	~		~	~	~		~	~	~		~	~	~		~	~
Butyl benzyl phthalate	**100**	**NS**	ND		1.00	0.245	~		~	~	~		~	~	~		~	~	~		~	~
3,3'-Dichlorobenzidine	**30**	**NS**	ND		1.00	0.197	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]anthracene	**0.1**	**NS**	ND		**1.00**	0.109 *	~		~	~	~		~	~	~		~	~	~		~	~
Chrysene	**5**	**NS**	ND		1.00	0.149	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-ethylhexyl) phthalate	**3**	**NS**	2.56		1.00	0.429	~		~	~	~		~	~	~		~	~	~		~	~
Di-n-octyl phthalate	**100**	**NS**	ND		1.00	0.175	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[b]fluoranthene	**0.2**	**NS**	ND		**1.00**	0.220 *	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[k]fluoranthene	**0.5**	**NS**	ND		**1.00**	0.289	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]pyrene	**0.1**	**NS**	ND		**1.00**	**0.176**	~		~	~	~		~	~	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	**0.2**	**NS**	ND		**1.00**	0.238 *	~		~	~	~		~	~	~		~	~	~		~	~
Dibenz[a,h]anthracene	**0.3**	**NS**	ND		**1.00**	0.217	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[g,h,i]perylene	**NS**	**NS**	ND		1.00	0.183	~		~	~	~		~	~	~		~	~	~		~	~
Dinitrotoluene (2,4- and 2,6-)	**10**	**NS**	ND		1.00	0.207	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL BN'S:	**NS**	**NS**	20.5	J		NA	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL TIC's:	**NS**	**NS**	15.3	CJN		NA	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL BN'S & TIC's:	**NS**	**NS**	35.8	CJN		NA	~		~	~	~		~	~	~		~	~	~		~	~

Notes:
NJDEP GWQS = New Jersey Department of Environmental Protection Groundwater Quality Standard
NJDEP VIGSL = New Jersey Departement of Environmental Protection Vapor Intrusion Groundwater Screening Level
Shaded results exceed the New Jersey Department of Environmental Protection (NJDEP) Groundwater Quality Standard
Shaded results exceed the New Jersey Department of Environmental Protection (NJDEP) Vapor Intrusion Groundwater Screening Level
Bold RL = Reporting limit exceeds applicable standard
Bold MDL = Method detection limit exceeds applicable standard
* = Value does not exceed applicable standard when rounded to the significant figure
ND = Analyzed for but Not Detected at the MDL
NS = No Standard
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
~ = Sample not analyzed for

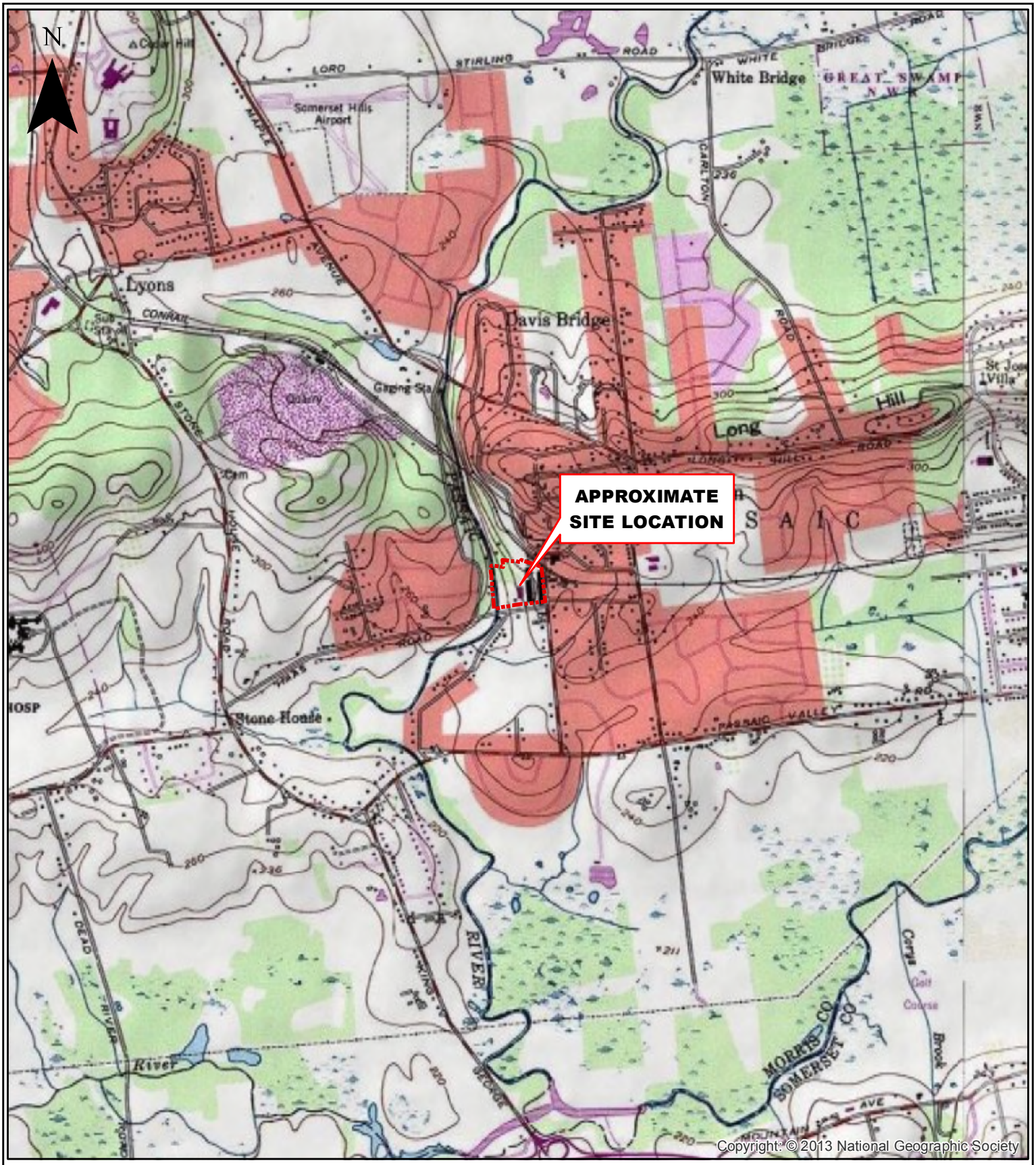
Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Figures



New Jersey Quadrangle Location

2,000 1,000 0 2,000 Feet

SOURCE: USGS N.J. 7.5 MINUTE. QUADRANGLE, TOPOGRAPHIC IMAGERY OBTAINED FROM ARCGIS ONLINE

Environmental Consulting & Remediation
100 Misty Lane
P.O. Box 5430
Parsippany, NJ 07054

DATE: 2/27/2019

PROJECT # 208322

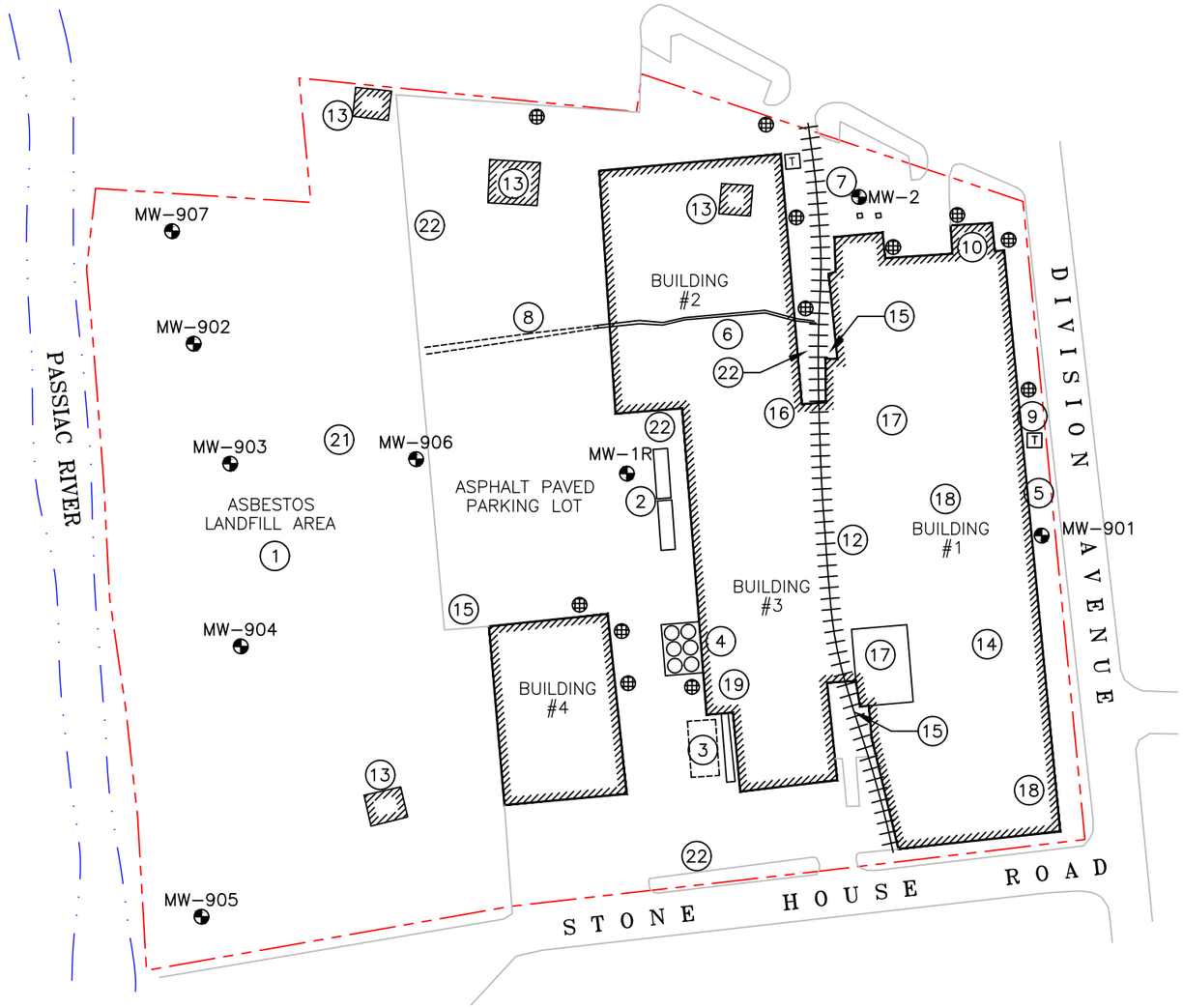
DRAWN BY: JS

CHECKED BY: ND

Document Path: G:\Job Data\208000\208322\DRAWING\2019\Figure1.mxd

Figure # 1

SITE LOCATION MAP
500 DIVISION AVENUE
MILLINGTON, NEW JERSEY



AREAS OF CONCERN

1. ASBESTOS LANDFILL/DUMP POSSIBLE ASBESTOS FILL AT OTHER LOCATIONS
2. ABANDONED IN PLACE 2 – 30,000 GALLON No. 6 HEATING OIL USTs
3. UNKNOWN TANK (AND FORMER GARAGE)
4. 6 – 5,000 GALLON CAPACITY TANKS
5. FORMER GAS PUMP AND UST
6. TANK FIELD (FORMER)
7. OIL PITS (FORMER)
8. SLUICEWAY DISCHARGE CHANNEL
9. TRANSFORMER HOUSE
10. FORMER PRODUCTION WELL
11. FORMER SEPTIC SYSTEMS
12. FORMER RAILROAD SIDING
13. FORMER RESIDENTIAL STRUCTURES/DWELLSINGS
14. STEEL FLOOR PLATE
15. DRUMS
16. FLOOR DRAINS
17. HAZARDOUS MATERIAL STORAGE AREA
18. COMPRESSOR VENT DISCHARGE
19. FORMER ELEVATOR
20. CONCRETE
21. HISTORIC FILL
22. DUMPSTERS

LEGEND

- STORM DRAIN
- MONITORING WELL
- T TRANSFORMER

GRAPHIC SCALE

120 0 60 120 240

(IN FEET)

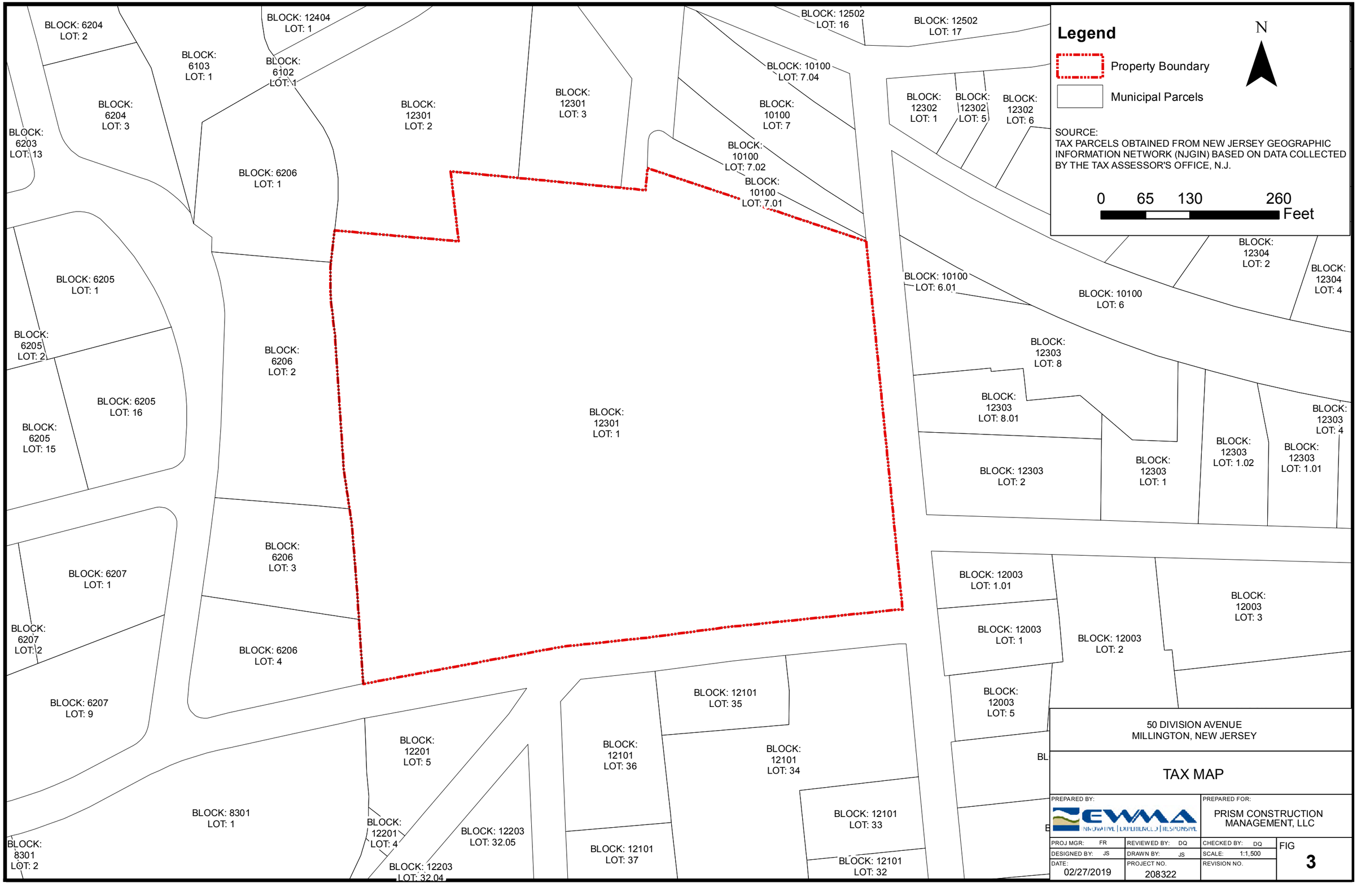
EWMA
INNOVATIVE | EXPERIENCED | RESPONSIVE
100 Misty Lane
P.O. Box 5430
Parsippany, NJ 07054

SCALE: AS SHOWN	PROJECT# 208322
DATE: 3/5/19	
DRAWN BY: CL CHECKED BY: ND FILE: k:\drawings\208000\208322\2019\208322f2.dwg	

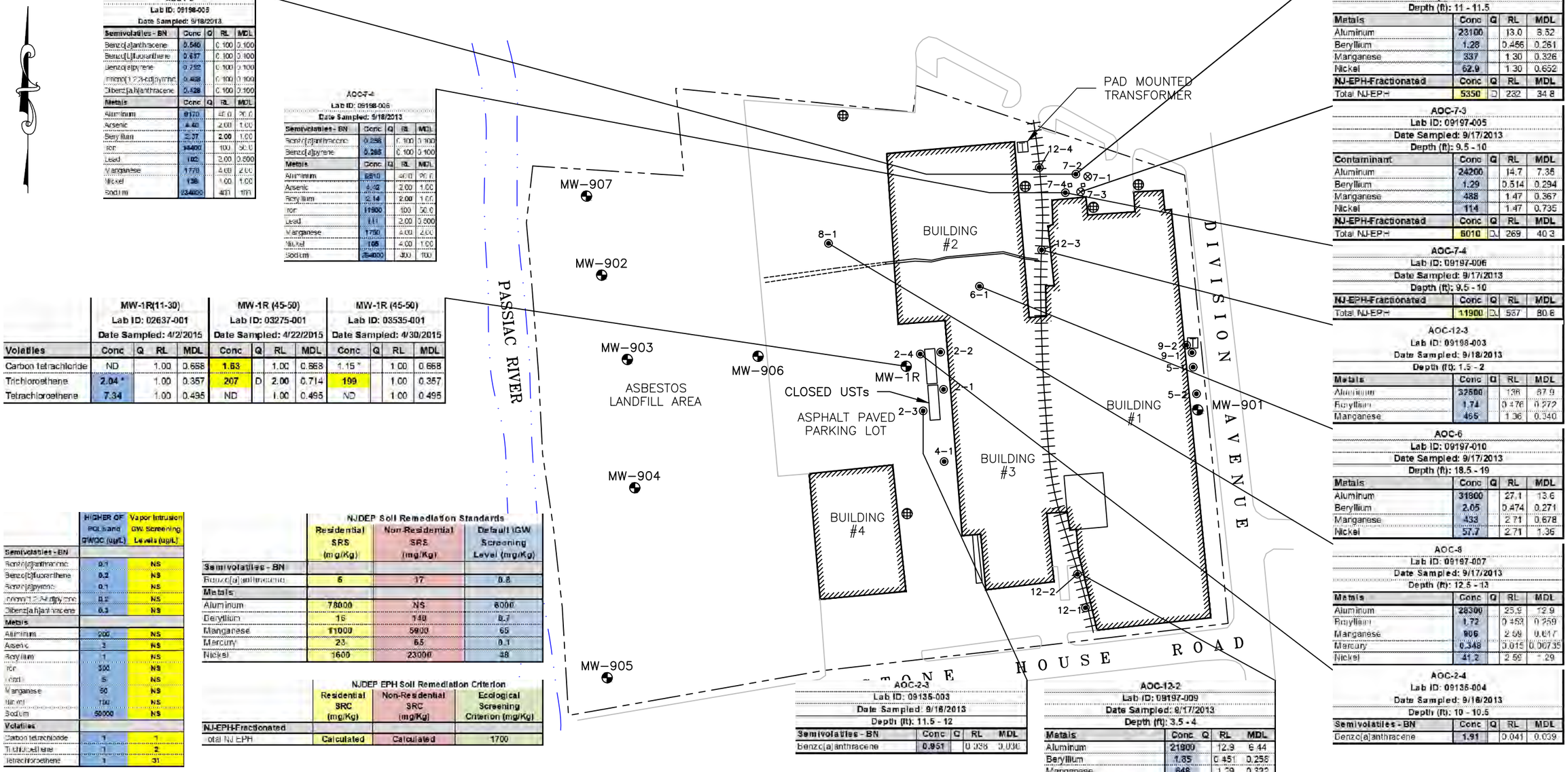
SITE PLAN WITH AREAS OF CONCERN (AOC)

50 DIVISION AVENUE
MILLINGTON, NEW JERSEY

FIGURE# 2



2019 - EWMA G:\Job Data\208000\208322\DRAWING\2019\Figure3.mxd, 2/27/2019, 10:03:10 AM, Jessica_S



AOC-7-2
Lab ID: 09198-005
Date Sampled: 9/18/2013

Semivolatiles - BN	Conc	Q	RL	MDL
Benzo[a]anthracene	0.540		0.100	0.100
Benzo[j]fluoranthene	0.637		0.100	0.100
Benzo[e]pyrene	0.752		0.100	0.100
Indeno[1,2,3-cd]pyrene	0.488		0.100	0.100
Dibenz[a,h]anthracene	0.428		0.100	0.100
Metals	**Conc**	**Q**	**RL**	**MDL**
Aluminum	9120		40.0	26.0
Arsenic	4.40		2.00	1.00
Beryllium	0.37		2.00	1.00
Iron	14400		100	50.0
Lead	102		2.00	0.500
Manganese	1770		4.00	2.00
Nickel	138		4.00	1.00
Sodium	234000		400	100

AOC-7-4
Lab ID: 09198-006
Date Sampled: 9/18/2013

Semivolatiles - BN	Conc	Q	RL	MDL
Benzo[a]anthracene	0.256		0.100	0.100
Benzo[a]pyrene	0.285		0.100	0.100
Metals	**Conc**	**Q**	**RL**	**MDL**
Aluminum	6810		40.0	26.0
Arsenic	4.42		2.00	1.00
Beryllium	0.14		2.00	1.00
Iron	11900		100	50.0
Lead	111		2.00	0.500
Manganese	1750		4.00	2.00
Nickel	105		4.00	1.00
Sodium	254000		400	100

	MW-1R(11-30) Lab ID: 02637-001 Date Sampled: 4/2/2015				MW-1R (45-50) Lab ID: 03275-001 Date Sampled: 4/22/2015				MW-1R (45-50) Lab ID: 03535-001 Date Sampled: 4/30/2015			
Volatiles	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Carbon tetrachloride	ND		1.00	0.668	1.63		1.00	0.668	1.15 *		1.00	0.668
Trichloroethene	2.04 *		1.00	0.357	207	D	2.00	0.714	199		1.00	0.357
Tetrachloroethene	7.34		1.00	0.495	ND		1.00	0.495	ND		1.00	0.495

	HIGHER OF PQLs and GWQC (ug/L)	Vapor Intrusion GW Screening Levels (ug/L)
Semivolatiles - BN		
Benz[a]anthracene	0.1	NS
Benzo[b]fluoranthene	0.2	NS
Benzo[e]pyrene	0.1	NS
Indeno[1,2,3-cd]pyrene	0.2	NS
Dibenz[a,h]anthracene	0.3	NS
Metals		
Aluminum	200	NS
Arsenic	3	NS
Beryllium	1	NS
Iron	300	NS
Lead	5	NS
Manganese	50	NS
Nickel	100	NS
Sodium	50000	NS
Volatiles		
Carbon tetrachloride	1	1
Trichloroethene	1	2
Tetrachloroethene	1	31

	NJDEP Soil Remediation Standards Residential SRS (mg/Kg)	Non-Residential SRS (mg/Kg)	Default IGW Screening Level (mg/Kg)
Semivolatiles - BN			
Benzo[a]anthracene	5	17	0.8
Metals			
Aluminum	78000	NS	8000
Beryllium	16	140	0.7
Manganese	11000	5900	65
Mercury	23	65	0.1
Nickel	1600	23000	38

	NJDEP EPH Soil Remediation Criterion Residential SRC (mg/Kg)	Non-Residential SRC (mg/Kg)	Ecological Screening Criterion (mg/Kg)
NJ-EPH-Fractionated			
Total NJ EPH	Calculated	Calculated	1700

AOC-7-2
Lab ID: 09197-004
Date Sampled: 9/17/2013
Depth (ft): 11 - 11.5

Metals	Conc	Q	RL	MDL
Aluminum	23100		13.0	8.52
Beryllium	1.28		0.456	0.261
Manganese	337		1.30	0.326
Nickel	62.9		1.30	0.652
NJ-EPH-Fractionated	**Conc**	**Q**	**RL**	**MDL**
Total NJ-EPH	5350	DJ	232	34.8

AOC-7-3
Lab ID: 09197-005
Date Sampled: 9/17/2013
Depth (ft): 9.5 - 10

Contaminant	Conc	Q	RL	MDL
Aluminum	24200		14.7	7.36
Beryllium	1.29		0.514	0.294
Manganese	488		1.47	0.367
Nickel	114		1.47	0.735
NJ-EPH-Fractionated	**Conc**	**Q**	**RL**	**MDL**
Total NJ-EPH	6010	DJ	269	40.3

AOC-7-4
Lab ID: 09197-006
Date Sampled: 9/17/2013
Depth (ft): 9.5 - 10

NJ-EPH-Fractionated	Conc	Q	RL	MDL
Total NJ-EPH	11900	DJ	587	80.6

AOC-12-3
Lab ID: 09198-003
Date Sampled: 9/18/2013
Depth (ft): 1.5 - 2

Metals	Conc	Q	RL	MDL
Aluminum	32500		136	87.9
Beryllium	1.74		0.476	0.272
Manganese	465		1.36	0.340

AOC-6
Lab ID: 09197-010
Date Sampled: 9/17/2013
Depth (ft): 18.5 - 19

Metals	Conc	Q	RL	MDL
Aluminum	31800		27.1	13.6
Beryllium	2.05		0.474	0.271
Manganese	433		2.71	0.678
Nickel	57.7		2.71	1.36

AOC-8
Lab ID: 09197-007
Date Sampled: 9/17/2013
Depth (ft): 12.5 - 13

Metals	Conc	Q	RL	MDL
Aluminum	28300		25.9	12.9
Beryllium	1.72		0.453	0.259
Manganese	906		2.59	0.647
Mercury	0.348		0.015	0.00735
Nickel	41.2		2.59	1.29

AOC-2-4
Lab ID: 09136-004
Date Sampled: 9/16/2013
Depth (ft): 10 - 10.5

Semivolatiles - BN	Conc	Q	RL	MDL
Benzo[a]anthracene	1.91		0.041	0.039

AOC-2-3
Lab ID: 09136-003
Date Sampled: 9/16/2013
Depth (ft): 11.5 - 12

Semivolatiles - BN	Conc	Q	RL	MDL
Benzo[a]anthracene	0.951		0.038	0.036

AOC-12-2
Lab ID: 09197-009
Date Sampled: 9/17/2013
Depth (ft): 3.5 - 4

Metals	Conc	Q	RL	MDL
Aluminum	21900		12.9	6.44
Beryllium	1.85		0.451	0.258
Manganese	648		1.29	0.322
Mercury	0.675		0.015	0.00725
Nickel	38.5		1.29	0.644

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING SAMPLE LOCATION
- SOIL BORING AND GRAB GROUND WATER SAMPLE LOCATION
- TRANSFORMER LOCATION
- STORM DRAIN

GRAPHIC SCALE
120 0 60 120 240
(IN FEET)

NOTE: SOIL RESULTS IN PARTS PER MILLION (PPM), GROUND WATER RESULTS IN PARTS PER BILLION (PPB)

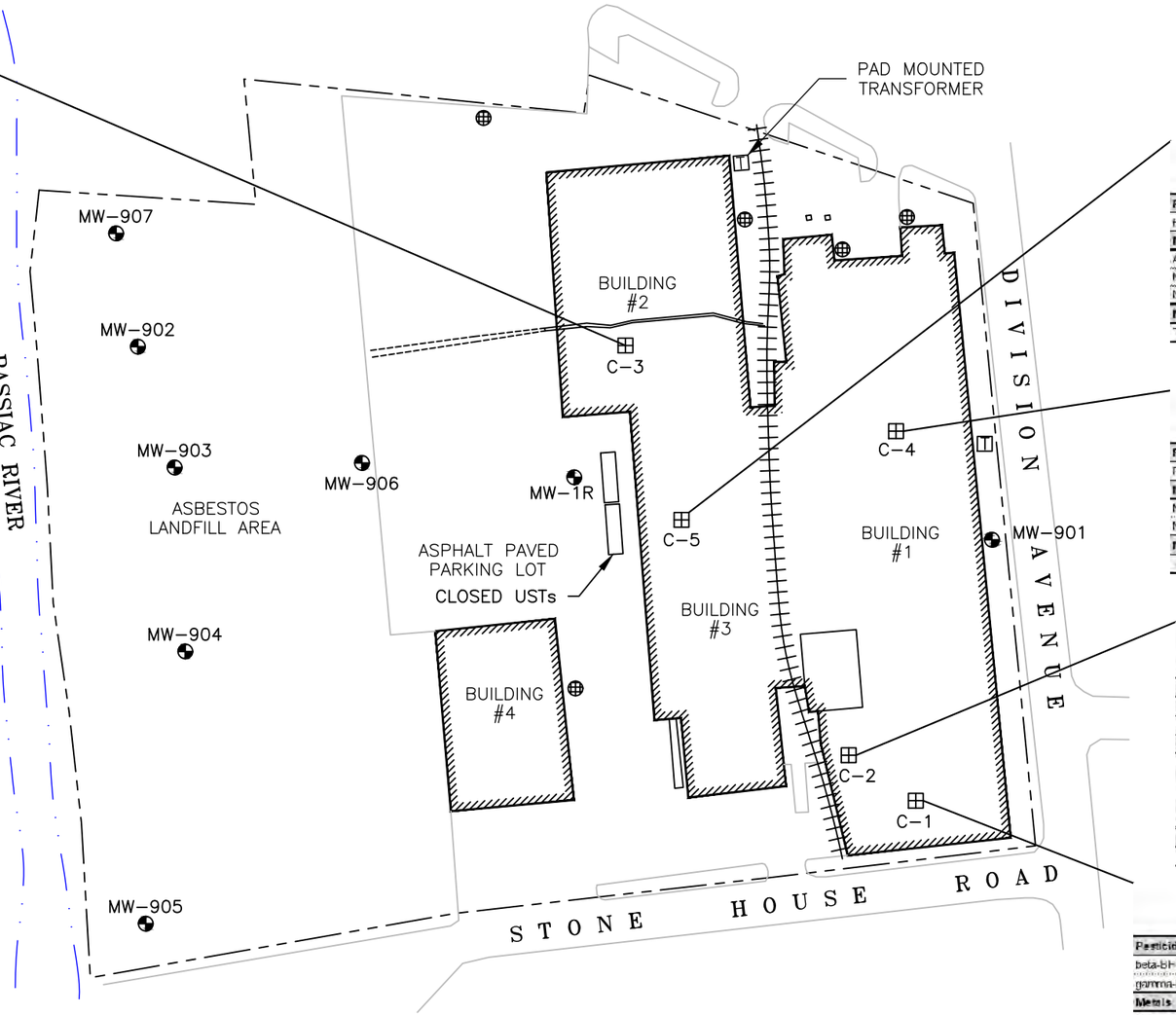
EWMA
INNOVATIVE | EXPERIENCED | RESPONSIVE
100 Misty Lane
P.O. Box 5430
Parsippany, NJ 07054

SCALE: 1" = 2,000'
DATE: 2/26/19
PROJECT# 208322
DRAWN BY: RR/CL
CHECKED BY: ND
FILE: k:\drawings\208000\208322\2019\20832213.dwg

SOIL SAMPLE AND GROUND WATER LOCATION EXCEEDANCE PLAN

50 DIVISION AVENUE
MILLINGTON, NEW JERSEY

FIGURE# 4



C-3 BLD 2
Lab ID: 09196-003
Date Sampled: 9/17/2013

Metals	Conc	Q	RL	MDL
Aluminum	7400		10.8	5.43
Manganese	158		1.09	0.272
Mercury	3.50		0.013	0.00619
NJ-EPH-Fractionated	**Conc**	**Q**	**RL**	**MDL**
Total NJ-EPH	3720		39.1	5.87

C-5 SPHINX ELEC.
Lab ID: 09196-005
Date Sampled: 9/17/2013

PCB's	Conc	Q	RL	MDL
PCBs	0.384	D		NA
Metals	**Conc**	**Q**	**RL**	**MDL**
Aluminum	6040		10.9	5.42
Manganese	481		1.09	0.272
Mercury	4.83		0.133 *	0.059
NJ-EPH-Fractionated	**Conc**	**Q**	**RL**	**MDL**
Total NJ-EPH	2640		39.8	5.84

C-4 IMP. METALS
Lab ID: 09196-004
Date Sampled: 9/17/2013

PCB's	Conc	Q	RL	MDL
PCBs	0.793	D		NA
Metals	**Conc**	**Q**	**RL**	**MDL**
Manganese	214		1.08	0.268
Mercury	45.1		3.64	1.75
NJ-EPH-Fractionated	**Conc**	**Q**	**RL**	**MDL**
Total NJ-EPH	14000	D	372	56.9

C-2 LOAD DOCK 1
Lab ID: 09196-002
Date Sampled: 9/17/2013

Pesticides	Conc	Q	RL	MDL
gamma-BHC (Lindane)	0.018		0.00033	0.000165
Dieldrin	0.00504		0.00033	0.000165
Metals	**Conc**	**Q**	**RL**	**MDL**
Aluminum	14800		11.1	5.56
Cadmium	3.96		0.556	0.139
Manganese	131		1.11	0.278
Mercury	3.16		0.012	0.00577
NJ-EPH-Fractionated	**Conc**	**Q**	**RL**	**MDL**
Total NJ-EPH	3790	DJ	192	28.8

C-1 WAREHOUSE 1
Lab ID: 09196-001
Date Sampled: 9/17/2013

Pesticides	Conc	Q	RL	MDL
beta-BHC	0.00278		0.000326	0.000163
gamma-BHC (Lindane)	0.013		0.000326	0.000163
Metals	**Conc**	**Q**	**RL**	**MDL**
Manganese	263		1.09	0.272
Mercury	4.73		0.118 *	0.057

	NJDEP Soil Remediation Standards		
	Residential SRS (mg/Kg)	Non-Residential SRS (mg/Kg)	Default GW Screening Level (mg/Kg)
Metals			
Aluminum	78000	NS	3000
Cadmium	78	78	2
Manganese	11000	3800	53
Mercury	23	65	0.1
PCB's			
PCBs	0.2	1	0.2
Pesticides			
beta-BHC	0.4	2	0.002
gamma-BHC (Lindane)	0.4	2	0.002
Dieldrin	0.04	0.2	0.001

	NJDEP EPH Soil Remediation Criterion		
	Residential SRC (mg/Kg)	Non-Residential SRC (mg/Kg)	Ecological Screening Criterion (mg/Kg)
NJ-EPH-Fractionated			
Total NJ-EPH	Calculated	Calculated	1700

LEGEND

- MONITORING WELL LOCATION
- CONCRETE SAMPLE LOCATION
- STORM DRAIN

NOTE: ALL RESULTS ARE ABOVE APPLICABLE CRITERIA, RESULTS IN PARTS PER MILLION (PPM)

GRAPHIC SCALE

120 0 60 120 240

(IN FEET)

EWMA
INNOVATIVE | EXPERIENCED | RESPONSIVE
100 Misty Lane
P.O. Box 5430
Parsippany, NJ 07054

SCALE: 1" = 2,000'
DATE: 2/26/19
PROJECT# 208322
DRAWN BY: RR/CL
CHECKED BY: ND
FILE: k:\drawings\208000\208322\2019\208322f3.dwg

CONCRETE SAMPLE LOCATION RESULTS

50 DIVISION AVENUE
MILLINGTON, NEW JERSEY

FIGURE# 5

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 1

NJDEP Reporting Forms

New Jersey Department of Environmental Protection
Site Remediation and Waste Management Program

AUTHORIZATION TO SUBMIT A REMEDIAL PHASE REPORT THROUGH NJDEP ONLINE

[Except Response Action Outcome (RAO)]

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Tifa Limited

Street Address: 50 Division Avenue

Municipality: Millington (Township of Long Hill) (Township, Borough or City)

County: Morris Zip Code: 07946

Program Interest (PI) Number(s): 024069

SECTION B. STATEMENT OF AUTHORIZATION TO SUBMIT THE REMEDIAL PHASE REPORT

I authorize the Licensed Site Remediation Professional, retained for this site pursuant to the Brownfield and Contaminated Site Remediation Act at N.J.S.A. 58:10B-1.3b, and named below to submit, as applicable, the remedial phase report listed below, updated Receptor Evaluation Form, and CEA/Well Restriction Fact Sheet Form, for the Program Interest Number noted above. I understand that I am assuming full responsibility that the information provided in the remedial phase report is true, accurate, and complete.

Name and Date of Remedial Phase Report:

Preliminary Assessment / Site Investigation Report Dated March 2019

Authorized Licensed Site Remediation Professional (LSRP)

First Name: Francis X. Last Name: Rooney

LSRP License #: 668283

SECTION C. CERTIFICATION BY THE PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION

Full Name of Person Responsible for Conducting the Remediation: Prism Millington, LLC

Representative First Name: Robert Representative Last Name: Fourniadis

Mailing Address: 200 Broadacres Drive, Suite 180

Municipality: Bloomfield State: New Jersey Zip Code: 07003

Telephone Number: (201) 510-2032 Ext.: Fax:

Email Address: robert.fourniadis@prismpartners.net

This certification shall be signed by the person responsible for conducting the remediation who is submitting this Authorization and Report in accordance with the Administrative Requirements for the Remediation of Contaminated Sites at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Date: 3/15/19

Name/Title: Robert Fourniadis / Senior Vice President - Residential

Completed form should be uploaded to NJDEP Online.

Case Name: Tifa Limited
PI #: 024069

IMPORTANT: *1) Do not delete or copy and paste across multiple columns because it can disrupt hidden equations.*
2) If pasting from a Word document, use the Paste option: ***Match Destination Formatting***
3) If the text turns ***red*** *you have exceeded the character limit for that column*

Case Inventory Document Version 1.4 02/23/17

AOC ID	AOC Type	AOC Description	Confirmed Contamination	AOC Status	Status Date	Incident #	DEP AOC Number	Contaminated Media	Contaminants of Concern	Additional Contaminants of Concern	Applicable Remediation Standard	Exposure Route	RA Type	Was an Order of Magnitude Evaluation Conducted?	Activity
AOC-1	Discharge and disposal area - Historic fill material area/other fill area	Asbestos Landfill (Possible Pockets of Asbestos Fill throughout Property)	Yes	PA/SI	3/15/2019			Mixed Media	Other		Remediation Standards	Inhalation			The western portion of the Property contains a 4.5-acre fenced in area which was landfilled with asbestos containing materials. The landfill is closed and covered by a soil cap and vegetation (engineering control) that was designed and installed under the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA - Superfund) Program. The property has been delisted as a Superfund site and is being monitored as part of a required Operations and Maintenance Plan.
AOC-2	Storage tank and appurtenance - State or Federal Regulated underground storage tank	Former Fuel Oil USTs	Yes	PA/SI	3/15/2019			Soil	Metals + EPH	PAHs	Remediation Standards	Ground Water			The EDR database report listed the Property as a Historic LUST site under case number 93-01-07-1125 due to a spill to land from the No. 6 oil UST. According to information obtained from the Long Hill Township Building Department file, two 30,000-gallon No. 6 heating oil USTs were abandoned in-place on February 1, 1993. The USTs were investigated and one UST had evidence of contamination present in soil samples collected from around it. A bedrock monitoring well was installed and groundwater samples were subsequently collected. Fuel oil constituents were not reported, however TCE was identified in the groundwater at 34 ug/l exceeding GWQS. Nevertheless, NJDEP issued a No Further Action (NFA) for the UST closures on 11/28/1994 indicating an assumption that the TCE would be addressed as part of the NPL work. The well was later sealed, the NPL site delisted, and further response regarding TCE in bedrock aquifer apparently was not conducted.
AOC-3	Other areas of concern - Any area suspected of containing contaminants	Former Garage and possible Tank between Buildings 3 and 4	No	PA/SI	3/15/2019						Remediation Standards				A historical site plan depicted a garage building and horizontal tank near the southwest corner of Building 3 in an area that currently is a paved, raised parking area. A geophysical survey conducted 9/11/2013 indicated that "the parking area was found to be almost entirely paved with steel-reinforced concrete. An excavated area and railway tracks were detected. EWMA advanced five borings in this area including one within the asphalt patch and met refusal at three to four feet bgs on concrete in each boring. Fill material above the refusal depth contained suspected ACM debris. Other evidence of contamination was not observed or detected and no soil samples were collected for laboratory analyses. No further action is required for this AOC except that suspected ACM will be addressed as noted in AOC-1, above. If evidence of a discharge is observed during any redevelopment of the Property, the appropriate number of soil and/or groundwater samples will be collected in compliance with NJDEP TRSRs to evaluate the impacts within this AOC.
AOC-4	Other areas of concern - Any area suspected of containing contaminants	Former ASTs identified in 1963 and 1970 aerial photographs between Buildings 3 and 4	No	PA/SI	3/15/2019						Remediation Standards				A review of an undated Property Survey Map of the former National Gypsum Company facility depicts a tank farm containing six 5,000-gallon tanks with a berm area and adjacent to the south western side of Building 3. Additionally, during the aerial photograph review, the six 5,000-gallon ASTs are visible on the 1963 and 1970 aerial photographs in a similar location to that depicted on the survey map. A geophysical survey conducted 9/11/2013 indicated "no targets were detected....". A soil sample was collected and no compounds were detected. If evidence of a discharge is observed during any redevelopment of the Property, the appropriate number of soil and/or groundwater samples will be collected in compliance with NJDEP TRSRs to evaluate the impacts within this AOC.
AOC-5	Other areas of concern - Any area suspected of containing contaminants	Former Gas Pump and Suspected UST	No	PA/SI	3/15/2019						Remediation Standards				A historical site plan depicted a gas pump on the east side of the Building 1. The pump is no longer present, but the area is gravel-covered suggesting excavation and backfilling of a tank at this location. A geophysical survey conducted on 9/11/2013, indicated that the gravel area overlies a likely tank void that had been backfilled, but did not identify anomalies to suggest that an UST remained in the survey area. Soil samples were collected and trace levels of acetone and carbon disulfide, likely laboratory artifacts, were reported. No other VOCs were detected. Lead was reported at concentrations below applicable remediation standards and criteria. A groundwater sample was also collected which detected three metals (aluminum, manganese, and sodium). These metals are likely naturally occurring elements and are not believed to be a site-related contaminant. No further soil investigation is warranted for this AOC. Further groundwater investigation is warranted to confirm if the detected metals are from background conditions for this AOC.
AOC-6	Other areas of concern - Any area suspected of containing contaminants	Potential Tanks in Area of Building 2	Yes	PA/SI	3/15/2019			Soil	Metals		Remediation Standards	Ground Water			A historical site plan depicted a rectangular feature labeled “Tanks” in an area currently covered by Building 2. No other information regarding this potential tank field was available. Soil samples were collected and several metals (aluminum, beryllium, manganese, and nickel) were reported above NJDEP IGWSSL. None exceeded DCSRS. It is likely that the metals reflect background conditions and may potentially be addressed via background assessment or development of site specific criteria. Further soil investigation and action is warranted.
AOC-7	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	Former Oil Pit Area	Yes	PA/SI	3/15/2019			Mixed Media	Metals + EPH	PAHs	Remediation Standards	Ingestion/Dermal			A historical site plan depicted two features identified as “oil pits” north of Building 1 in a current paved parking area. The geophysical survey identified two six-foot diameter subsurface features that are believed to be the former pits as well as an area of buried metal north of the pits. Investigation results indicate that subsurface structures likely associated with reported oil pits remain on site, and that the area surrounding these features has been negatively impacted by residual lubricating oils. Asbestos debris also is present in fill. These structures are located in an area at which perched groundwater in the overburden was present and at which separate phase product (oil) was present floating on the groundwater surface. Further investigation and action is warranted.
AOC-8	Discharge and disposal area - Area of discharge pursuant to N.J.A.C. 7:1E	Discharge Area of Former Sluiceway	Yes	PA/SI	3/15/2019			Soil	Metals		Remediation Standards	Ingestion/Dermal			A historical site plan depicted a sluiceway from Building 1 leading to a storm drain pipe that crossed beneath the area of Building 2 and discharged into the area now covered by the parking lot. The sluiceway alignment currently is located in parts of the site storm drain system that discharges to the west of the parking area. Soil samples were collected and several metals (aluminum, beryllium, manganese, mercury, and nickel) were reported above NJDEP IGWSSL. None exceeded DCSRS. It is possible that the mercury may be site related as phenyl mercuric acetate (PMA) reportedly was used in the past on site manufacturing. Otherwise, the metals likely reflect background conditions and may potentially be addressed via background assessment or development of site specific IGWSSL. Further soil investigation and action is warranted. An attempt will be made to create a site specific IGW Criteria for soil for this AOC.
AOC-9	Other areas of concern - Electrical transformer and capacitor	Transformer House	No	PA/SI	3/15/2019						Remediation Standards				A small transformer house is located on the east side of Building 1. Two shallow soil samples were obtained from within the house adjacent to a pad-mounted transformer. Samples were analyzed for PCBs. No PCB concentrations were detected. No further soil investigation is warranted for this AOC.
AOC-10	Environmental media - Media Ground water	Former Production Well	No	PA	3/15/2019						Remediation Standards				No further investigation is warranted for this AOC.
AOC-11	Discharge and disposal area - Waste water treatment systems/septic/seepage pit/dry well	Former Septic System	No	PA	3/15/2019						Remediation Standards				No further investigation is warranted for this AOC.

Case Name: Tifa Limited
PI #: 024069

IMPORTANT: *1) Do not delete or copy and paste across multiple columns because it can disrupt hidden equations.*
2) If pasting from a Word document, use the Paste option: ***Match Destination Formatting***
3) If the text turns ***red*** *you have exceeded the character limit for that column*

Case Inventory Document Version 1.4 02/23/17

AOC ID	AOC Type	AOC Description	Confirmed Contamination	AOC Status	Status Date	Incident #	DEP AOC Number	Contaminated Media	Contaminants of Concern	Additional Contaminants of Concern	Applicable Remediation Standard	Exposure Route	RA Type	Was an Order of Magnitude Evaluation Conducted?	Activity
AOC-12	Storage tank and appurtenance - Rail car	Former Rail Line and Equipment Testing Area	No	PA	3/15/2019			Soil	Metals		Remediation Standards	Ingestion/Dermal			Several metals (aluminum, beryllium, manganese, and nickel) were reported above NJDEP IGWSSL. No metals exceeded DCSRS. Mercury also was detected. Mercury was reportedly used in past on site manufacturing and may be associated with site activities. Otherwise, the metals likely reflect background conditions and potentially may be addressed via background assessment or development of site specific IGWSSL. Further soil investigation and action is warranted. An attempt will be made to create a site specific IGW Criteria for soil for this AOC.
AOC-13	Other areas of concern - Any area suspected of containing contaminants	Former Residential Structures/Dwellings	No	PA/SI	3/15/2019						Remediation Standards				Several onsite structures identified as dwellings were depicted in historical documents. One was located in the area covered by Building 2, one was located northwest of Building 2, and two were located in the restricted (former landfill) area that was addressed as part of the delisted NPL site work. EWMA's geophysical survey included coverage of the area northwest of Building 2 which currently is a paved parking area. Evidence of the former dwellings was not identified and no subsurface anomalies suggestive of former tanks or other features were identified. No further soil investigation is warranted for this AOC.
AOC-14	Other areas of concern - Any area suspected of containing contaminants	Steel Floor Plate	No	PA	3/15/2019						Remediation Standards				EWMA noted steel floor plates in the hallway of Building 1. The floor plate extends the length of the building in a north to south direction and turns to a hallway that runs west. EWMA lifted the steel plate in three areas and noted that the plates were set in concrete. It is not known if the steel plates covered a trench that was filled with concrete or whether they were put in place to accommodate heavy forklift travel.
AOC-15	Storage and staging area - Storage pad and area	Drums	No	PA	3/15/2019						Remediation Standards				EWMA noted two plastic 55-gallon drums on the south loading dock between Building 1 and Building 3. The drums appeared to contain used motor oil and according to Mr. Mata were left behind by a former tenant. Evidence of spill or release from the drums was not observed, as no staining was present on the concrete loading dock. EWMA noted a third steel 55-gallon drum on the north loading dock between Building 1 and Building 2. The drum was not labeled and the contents were not known. Evidence of black staining was noted on the sides of the drum and on the concrete beneath it.
AOC-16	Drainage system and area - Building floor drain and piping	Floor Drains	No	PA	3/15/2019						Remediation Standards				EWMA observed a floor drain in the Wild Bill Soda lease space within Building 2 during the site visit. According to municipal sources, the drains discharge to the municipal sanitary sewer system.
AOC-17	Other areas of concern - Hazardous substance storage or handling area	Hazardous Material Storage Area	No	PA	3/15/2019						Remediation Standards				Hazardous substances and/or wastes can include items such as petroleum based oils, lubricants, or cleaning products. Containers of consumer products containing small quantities of hazardous constituents used for general housekeeping practices by the current tenants were noted by EWMA within the Property building. These products are used for general cleaning and their proper use is not considered an AOC at this time. Several tenants stored various materials such as paints, cleaners, lubricants, and adhesives within the individual tenant spaces. These materials were stored in their original containers and in their original packaging in 1–gallon containers, plastic tubes and assorted containers.
AOC-18	Other areas of concern - Compressor vent discharge	Compressor Vent Discharge	No	PA	3/15/2019						Remediation Standards				EWMA noted an out-of-service air compressor in the vacant warehouse area of Building 1. The compressor was formerly used by TIFA. EWMA observed the area beneath the compressor and evidence of a discharge was not noted. In addition, the concrete beneath the compressor appeared intact during the Property visit and significant cracks (i.e., >¼-inch in width) were not observed. Based on the observed conditions, EWMA does not consider the compressor area an AOC. Since the compressor is no longer in use it would be prudent to drain the compressor of oil and remove it to prevent potential release or contamination from leaking oil. EWMA noted an active compressor in the Flaherty Machine and Manufacturing leased space within Building 1. Minor compressor oil staining was observed on the concrete beneath the compressor, however; the integrity of the concrete appeared intact during the Property visit and significant cracks (i.e., >¼-inch in width) were not observed.
AOC-19	Other areas of concern - Any area suspected of containing contaminants	Former Elevator	No	PA	3/15/2019						Remediation Standards				One concrete floor sump is located in the painters shop within Premier Painting of NJ leased spaced within Building 3. The sump is constructed of concrete and according to Mr. Mata, designed to collect groundwater seeping in from rain events. Water collected from the sump and a slop sink within the painters space discharge into the sanitary sewer system. The sump is constructed of concrete and appeared to be in good structural condition (no fractures or cracks noted). Because the sump's discharge pipes are connected to the sanitary sewer and there is no evidence of staining or a discharge, the sump is not considered an AOC. EWMA observed several slop sinks in the tenant spaces and bathrooms inside the buildings. According to municipal sources, the drains discharge to the municipal sanitary sewer system.
AOC-20	Other areas of concern - Any area suspected of containing contaminants	Concrete	No	PA/SI	3/15/2019						Remediation Standards				Results of concrete sample analyses indicates that concrete is not suitable for unrestricted use and should be characterized prior to demolition and disposal or reuse in accordance with NJDEP Guidance for Characterization of Concrete and Clean Material Certification for Recycling. It is likely that concrete could be suitable for onsite reuse as fill subject to use of institutional and engineering controls. Additional investigation and action may be required at such time that the site is re-developed. If the site use remains the same and the concrete is not disturbed then no further investigation will be warranted.
AOC-21	Discharge and disposal area - Historic fill material area/other fill area	Historic Fill	Yes	PA/SI	3/15/2019			Mixed Media	BN + Metals		Remediation Standards				Based on information obtained from the NJDEP Geo-Web, the Property is partially mapped within a historic fill area. In order to confirm the presence/absence of historic fill material at the Property, soil borings were conducted. Fill material including pieces of concrete and apparent pieces of discarded, suspect asbestos products (shingles, corrugated panels) was identified in the developed area of the site to depths ranging up to approximately five feet bgs. The historic fill material is proposed to be left in place and will be addressed via institutional (site-wide Deed Notice and CEA/WRA) and engineering controls (i.e., asphalt, concrete caps and landscaping material).
AOC-22	Storage and staging area - Dumpster	Dumpsters	No	PA	3/15/2019						Remediation Standards				Solid waste generated at the Property consists of domestic municipal waste and recyclable materials that are stored in dumpsters throughout the Property. The solid waste is removed by a private disposal company. EWMA observed the dumpsters and did not note evidence of a discharge or spill or evidence of hazardous materials present during the site visit. Based on this observation, no further investigation is warranted at this time.

New Jersey Department of Environmental Protection
Site Remediation and Waste Management Program

COVER/CERTIFICATION FORM

(Submit with Remedial Phase Report, Receptor Evaluation, and CEA Forms)

Date Stamp
(For Department use only)

SECTION A. SITE INFORMATION

Site Name: Tifa Limited

AKAs: Tifa Realty, Inc.

Street Address: 50 Division Avenue

Municipality: Millington (Township of Long Hill) (*Township, Borough or City*)

County: Morris Zip Code: 07946

Program Interest (PI) Number(s): 024069

Case Tracking Number(s) for this submission:

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2: 11/02/2015

State Plane Coordinates for a central location at the site: Easting: 485,574 Northing: 699,821

List current Municipal Block and Lot Numbers of the Site:

Block # 12301	Lot #(s) 1	Block #	Lot #(s)
Block #	Lot #(s)	Block #	Lot #(s)
Block #	Lot #(s)	Block #	Lot #(s)
Block #	Lot #(s)	Block #	Lot #(s)

SECTION B. SUBMISSION STATUS

1. Indicate how the Electronic Data Deliverable (EDD) for this submission is being provided to the NJDEP:
   - ☒ Via Email at srpedd@dep.state.nj.us (attach NJDEP confirmation email); or
   - ☐ CD (attach to this submission)
   - ☐ Not Applicable – No EDD
2. Complete the following Submission and Permit Status Table:

Remedial Phase Documents	N/A	Included in this Submission	Previously Submitted	Date of Submission	Date of Revised Submission	Date of Previous NJDEP Approval	Date of Document Withdrawal
Preliminary Assessment Report	☐	☒	☐	03/15/2019			
Site Investigation Report	☐	☒	☐	03/15/2019			
Remedial Investigation Report	☒	☐	☐				
Remedial Action Work Plan	☒	☐	☐				
Remedial Action Report	☒	☐	☐				
Response Action Outcome	☒	☐	☐				
Other Submissions							
Alternative Soil Remediation Standard and/or Screening level Application Form	☒	☐	☐				
Case Inventory Document		☒		03/15/2019			
Classification Exception Area / Well Restriction Area (CEA/WRA)	☒	☐	☐				
Discharge to Ground Water Permit by Rule Authorization Request	☒	☐	☐				

IEC Engineered System Response Action Report	☒	☐	☐				
Immediate Environmental Concern Report	☒	☐	☐				
LNAPL Interim Remedial Measure Report	☒	☐	☐				
Public Notification	☒	☐	☐				
Receptor Evaluation	☐	☒	☐	03/15/2019			
Technical Impracticability Determination	☒	☐	☐				
Vapor Concern Mitigation Report	☒	☐	☐				
Permit Application – list:	☒						
		☐	☐				
		☐	☐				
		☐	☐				
		☐	☐				
Radionuclide Remedial Action Report	☒	☐	☐				
Radionuclide Remedial Action Workplan	☒	☐	☐				
Radionuclide Remedial Investigation Report	☒	☐	☐				
Radionuclide Remedial Investigation Workplan	☒	☐	☐				

SECTION C. SITE USE

Current Site Use: (*check all that apply*)

- ☒ Industrial
- ☐ Residential
- ☒ Commercial
- ☐ School or child care
- ☐ Agricultural
- ☐ Park or recreational use
- ☐ Vacant
- ☐ Government
- ☐ Other: _____

Intended Future Site Use, if known: (*check all that apply*)

- ☐ Industrial
- ☒ Residential
- ☒ Commercial
- ☐ School or child care
- ☐ Park or recreational use
- ☐ Vacant
- ☐ Government
- ☐ Future site use unknown
- ☐ Other: _____

SECTION D. CASE TYPE: (*check all that apply*)

- ☒ Administrative Consent Order (ACO)
- ☐ Brownfield Development Area (BDA)
- ☐ Child Care Facility
- ☐ Chrome Site (Chromate chemical production waste)
- ☐ Coal Gas
- ☐ Due Diligence with RAO
- ☐ Hazardous Discharge Remediation Fund (HDSRF) Grant/Loan
- ☐ ISRA
- ☐ Landfill (SRP subject only)
- ☐ Regulated Underground Storage Tank (UST)
- ☐ Remediation Agreement (RA)/Remediation Certification
- ☐ School Development Authority (SDA)
- ☐ School facility
- ☐ Spill Act Defense – Government Entity
- ☐ Spill Act Discharge
- ☐ UST Grant/Loan
- ☐ Other: _____

Federal Case (*check all that apply*)

☐ RCRA GPRA 2020 ☒ CERCLA/NPL ☐ USDOD ☐ USDOE

1. Is the party conducting remediation a government entity? ..... ☐ Yes ☒ No

   If "Yes," check one: ☐ Federal ☐ State ☐ Municipal ☐ County

SECTION E. PUBLIC FUNDS

Did the remediation utilize public funds? ..... ☐ Yes ☒ No

If "Yes," check applicable:

- ☐ UST Grant
- ☐ HDSRF Grant
- ☐ Spill Fund
- ☐ UST Loan
- ☐ HDSRF Loan
- ☐ Schools Development Authority
- ☐ Brownfield Reimbursement Program
- ☐ Landfill Reimbursement Program
- ☐ Environmental Infrastructure Trust

SECTION F. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 668283

First Name: Francis X. Last Name: Rooney

Phone Numbers: (973) 560-1400 Ext.: 152 Fax: (973) 560-0040

Mailing Address: 100 Misty Lane, P.O. Box 5430

Municipality: Parsippany State: New Jersey Zip Code: 07054

Email Address: frank.rooney@ewma.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-14, and N.J.S.A. 58:10B-1.3b(1) and (2).

(1) I certify, as a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C-1 et seq. to conduct business in New Jersey, that for the remediation described in this submission, and all attachments included in this submission, I personally: Managed, supervised, or performed the remediation conducted at this site that is described in this submission, and all attachments included in this submission; and/or periodically reviewed and evaluated the work performed by other persons that forms the basis for the information in this submission; and/or completed the work of another site remediation professional, licensed or not, after having: (1) reviewed all available documentation on which I relied; (2) conducted a site visit and observed the then-current conditions and verified the status of as much of the work as was reasonably observable; and (3)concluded, in the exercise of my independent professional judgment, that there was sufficient information upon which to complete any additional phase of remediation and prepare workplans and reports related thereto.

(2) I certify:

- *That I have read this submission and all attachments to this submission;*
- *That in performing the professional services as the licensed site remediation professional for the entire site or each area of concern, I adhered to the professional conduct standards and requirements governing licensed site remediation professionals provided in N.J.S.A. 58:10C-16;*
- *That the remediation conducted at the entire site or each area of concern, that is described in this submission and all attachments to this submission, was conducted pursuant to and in compliance with the remediation requirements in N.J.S.A. 58:10C-14.c;*
- *That the remediation described in this submission, and all attachments to this submission, was conducted pursuant to and in compliance with the regulations of the Site Remediation Professional Licensing Board at N.J.A.C. 7:26I; and*
- *That the information contained in this submission and all attachments to this submission is true, accurate, and complete.*

(3) I certify, when this submission includes a response action outcome, that the entire site or each area of concern has been remediated in compliance with all applicable statutes, rules, and regulations and is protective of public health and safety and the environment.

(4) I certify that no other person is authorized or able to use any password, encryption method, or electronic signature that the Board or the Department have provided to me.

(5) I certify that I understand and acknowledge that:

- *If I knowingly make a false statement, representation, or certification in any document or information I submit to the Department I may be subject to civil and administrative enforcement pursuant to N.J.S.A. 58:10C-17.a.1(a)through (f) by the Board, including but not limited to license suspension, revocation, or denial of renewal; and*
- *If I purposely, knowingly, or recklessly make a false statement, representation, or certification in any application, form, record, document or other information submitted to the Department or required to be maintained pursuant to the Site Remediation Reform Act, I shall be guilty, upon conviction, of a crime of the third degree and shall, notwithstanding the provisions of subsection b. of N.J.S.2C:43-3, be subject to a fine of not less than $5,000 nor more than $75,000 per day of violation, or by imprisonment, or both.*

(6) I certify that I have read this certification prior to signing, certifying, and making this submission.

LSRP Signature: Francis Rooney Date: 3-15-19

LSRP Name: Francis X. Rooney, LSRP / Project Manager

Company Name: EWMA

SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Prism Millington, LLC

Representative First Name: Robert Representative Last Name: Fourniadis

Title: Senior Vice President - Residential

Phone Number: (201) 510-2032 Ext.: FAX:

Mailing Address: 200 Broadacres Drive, Suite 180

Municipality: Bloomfield State: New Jersey Zip code: 07003

Email Address: robert.fourniadis@prismpartners.net

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Date: 3-15-19

Name/Title: Robert Fourniadis / Senior Vice President - Residential

For CEA Submissions:

☐ Check this box if the person above is also the property owner of the site or their representative. If this person is not the site property owner, please ensure the site property owner's name and address is in the first line of the table in Section E.2 of the Classification Exception Area / Well Restriction Area (CEA/WRA) Fact Sheet Form.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

New Jersey Department of Environmental Protection
Site Remediation and Waste Management Program

RECEPTOR EVALUATION (RE) FORM

Date Stamp
(For Department use only)

SECTION A. SITE

Site Name: Tifa Limited

Program Interest (PI) Number(s): 024069

Communication Center Number(s) and/or ISRA number(s) for this submission: (as *many as will fit in the space provided)*

This form must be attached to the Cover/Certification Form if not submitted through a Remedial Phase Online Service

Indicate the type of submission:

☒ Initial RE Submission

☐ Updated RE Submission

Indicate the reason for submission of an updated RE form

- ☐ Submission of an Immediate Environmental Concern (IEC) source control report;
- ☐ Submission of a Remedial Investigation Report;
- ☐ Submission of a Remedial Action Report;

Check if included in updated RE

- ☐ The known concentration or extent of contamination in any medium has increased;
- ☐ A new AOC has been identified;
- ☐ A new receptor is identified;
- ☐ A new exposure pathway has been identified.

SECTION B. ON SITE AND SURROUNDING PROPERTY USE

1. Identify any sensitive populations/uses that are currently on-site or surrounding property usage within 200 feet of the site property boundary (*check all that apply*):

	On-site	Off-site
None of the following	☒	☐
Residences or residential property	☐	☒
Public or Private Schools Grades K-12	☐	☐
Child care centers	☐	☐
Public parks, playgrounds or other recreation areas	☐	☐
Other sensitive population use(s) Explain Passaic River & Wetlands	☒	☒

If any of the above applies, attach a list of addresses, facility names, type of use, and a map depicting each location relative to the site. See Attachment 1

2. Current site uses (*check all that apply*):

☒ Industrial	☐ Residential	☒ Commercial
☐ School or child care	☐ Government	☐ Park or recreational use
☐ Vacant	☐ Agricultural	☐ Other:

3. Planned future on-site uses and off-site uses within 200 feet of the site boundary (*check all that apply*):

On-Site	Off-Site		On-Site	Off-Site		On-Site	Off-Site	
☐	☐	Industrial	☒	☒	Residential	☐	☒	Commercial
☐	☐	School or child care	☐	☐	Government	☐	☐	Park or recreational use
☐	☒	Vacant	☐	☐	Agricultural	☐	☒	Other: Public Property

Provide a map depicting the location of the proposed changes in land use. See Attachment 2

SECTION C. DESCRIPTION OF CONTAMINATION

1. Identify if any of the following exist at the site:

Yes	No	
☐	☒	Free product [N.J.A.C. 7:26E-1.8] identified is ☐ LNAPL* or ☐ DNAPL**.
		Date identified: _____
☐	☒	Residual product [N.J.A.C. 7:26E-1.8]
☐	☒	Other primary source materials not identified above (e.g., buried drums, containers, unsecured friable asbestos). See form instructions for additional information.
		Explain: _____

* LNAPL – measured thickness of .01 feet or more

**DNAPL – See *Ground Water Technical Guidance* and *USEPA Assessment and Delineation of DNAPL Source Zones at Hazardous Waste Sites* (attached as Appendix A of the NJDEP GW Guidance) available at: http://www.nj.gov/dep/srp/guidance/#pa_si_ri_gw. Also, see US EPA DNAPL Overview available at: http://cluin.org/contaminantfocus/default.focus/sec/Dense_Nonaqueous_Phase_Liquids_(DNAPLS)/cat/Overview

2. Soil Migration Pathway

Has soil contamination been delineated to the applicable Direct Contact Soil Remediation Standard pursuant to N.J.A.C. 7:26E-4.2? ..... ☐ Yes ☒ No

Are all soils either below the applicable Direct Contact Criteria or under an institutional control (i.e. deed notice)? ..... ☐ Yes ☒ No

3. If this evaluation is submitted with a technical document that includes contaminant summary information, proceed to Section D. Otherwise, attach a brief summary of all currently available data and information to be included in the site investigation or remedial investigation report.

SECTION D. GROUND WATER USE

1. Have all potentially contaminated areas of concern been evaluated to determine if there is a potential that ground water is contaminated pursuant to N.J.A.C. 7:26E-3.5? ..... ☒ Yes ☐ No

If "**No**," proceed to Section E.

2. Is a ground water investigation required? ..... ☒ Yes ☐ No

If "**No**," proceed to Section E.

3. Has a groundwater investigation been conducted? ..... ☒ Yes ☐ No

If "**Yes**":
Has the laboratory data package been received? ..... ☒ Yes ☐ No

If the laboratory data package has not been received, provide the expected due date for data: _____ and proceed to Section E.

If "**No**":
Proceed to Section E.

4. Is ground water contaminated above the Ground Water Remediation Standards [N.J.A.C.7:9C]? ..... ☒ Yes ☐ No

If "**Yes**": Provide the date that the laboratory data package was available and confirmed contamination was identified above the Ground Water Remediation Standards. Date: 10/04/2013

If "**No**": Proceed to Section E.

5. Has ground water contamination been delineated to the applicable Remediation Standard pursuant to N.J.A.C 7:26E-4.3? ..... ☐ Yes ☒ No

6. What is the ground water classification for this site as per N.J.A.C. 7:9C? (*check all that apply*)

☐ Class I-A	☒ Class II-A
☐ Class I-PL Pinelands Protection Area	☐ Class III-A
☐ Class I-PL Pinelands Preservation Area	☐ Class III-B

7. Has a well search been completed? ☒ Yes ☐ No

Date of most recent or updated well search: 02/20/2019

8. Is a completed Well Search Spreadsheet or historical well search table attached and has an electronic copy of the spreadsheet been submitted to srpgis_wrs@dep.nj.gov. ☒ Yes ☐ No

Note: Redacted wells must be excluded from all non-confidential documents including maps, tables, etc. (see RE Instructions).

If "**No**," explain: _____

9. Are any potable or irrigation wells located within ½ mile of the currently known extent of contamination? ☒ Yes ☐ No

If "**Yes**,":

- A door to door survey is required in accordance with [N.J.A.C.7:26E-1.14(a)ii]. Attach results of the door to door survey.
- Identify if any of the following conditions exist based on the well search and door to door survey [N.J.A.C.7:26E-1.14(a)]:

Yes	No	
☐	☒	Potable wells located within 500 feet from the downgradient edge of the currently known extent of contamination.
☐	☒	Potable wells located 250 feet upgradient or 500 feet side gradient of the currently known extent of contamination.
☐	☒	Ground water contamination from the discharge is located within a Tier 1 wellhead protection area (WHPA).

10. Has sampling been conducted of ☐ potable well(s) and /or ☐ non-potable use well(s)? ☐ Yes ☒ No

If "No," provide justification then proceed to Question 12.

No wells identified in the specified radius noted above (Question 9).

11. Has contamination been identified in potable well(s), **not attributed to background conditions**, above the Class II Ground Water Remediation Standards or State Safe Drinking Water levels, N.J.A.C 7:1E, whichever is applicable? ☐ Yes ☒ No

If "**Yes**":

- Provide the date laboratory data package was received: _____
- Follow the **IEC** Guidance Document at http://www.nj.gov/dep/srp/guidance/IEC/index.html for required actions and answer the following:
- Has an engineered system response action been completed on all impacted receptors? ☐ Yes ☐ No
  Provide a brief narrative description:

Date completed: _____ NJDEP Case Manager: _____

12. Has contamination been identified in non-potable well(s), **not attributed to background conditions**, above the Class II Ground Water Remediation Standards? ☐ Yes ☒ No

If "**Yes**," provide the date laboratory data package was received: _____

13. Has the ground water use evaluation been completed pursuant to N.J.A.C. 7:26E-1.14? ☒ Yes ☐ No

SECTION E. VAPOR INTRUSION (VI)

1. Indicate if any of the following conditions exist that trigger a Vapor Intrusion investigation. For each condition checked "Yes", provide the date the condition was first identified (e.g. date laboratory data package was available). (*see NJDEP Vapor Intrusion Technical Guidance*)

Yes	No		Date Condition First Identified
☐	☒	Ground water contamination in excess of the NJDEP Vapor Intrusion Ground Water Screening Levels (VIGWSL) and within 30 feet of a building for Petroleum Hydrocarbon Compounds (PHC) or 100 feet for non-PHC compounds ..	_____
☐	☒	Free product within 30 feet of a building for PHC or 100 feet for non-PHC compounds	_____
☐	☒	Soil gas contamination detected at concentrations that exceed the Soil Gas Screening Levels (SGSL)	_____
☐	☒	Indoor air contamination that exceeds the Indoor Air Screening Levels	_____
☐	☒	Wet basement or sump containing free product or ground water containing detectable concentration of volatile organic contaminants	_____
☐	☒	Methane generating conditions causing oxygen deficient or explosion concern	_____
☐	☒	Other human or safety concern from the VI pathway (i.e. elemental mercury, unsaturated soil contamination), *explain below:*	_____

If you checked "No" to <u>all</u> boxes in Question 1., proceed to Section F, "Ecological Receptors", otherwise complete the rest of this section.

2. Has ground water contamination been delineated to the applicable Vapor Intrusion Ground Water Screening Levels pursuant to N.J.A.C 7:26E-4.3? ..... ☐ Yes ☐ No

3. Was a site-specific screening level, modeling or other alternative approach employed for the VI pathway? ..... ☐ Yes ☐ No

4. Identify and locate, on a scaled map, any buildings/sensitive populations that exist within the following distances from ground water contaminant concentrations above the Vapor Intrusion Ground Water Screening Levels or other specific triggers noted in Question 1 above.:

Yes	No	
☐	☐	30 feet of petroleum free product or dissolved petroleum hydrocarbon contamination in ground water
☐	☐	100 feet of any non-petroleum free product (e.g. chlorinated hydrocarbons) or any non-petroleum dissolved volatile organic ground water contamination
☐	☐	Other specific triggers
☐	☐	No buildings exist within the specified distances or other specific triggers

5. Is the vapor intrusion pathway a concern at or adjacent to the site? (if "No," attach justification) ..... ☐ Yes ☐ No

6. Has soil gas sampling of the building(s) been conducted? ..... ☐ Yes ☐ No

   If "**Yes**," has the laboratory data package been received? ..... ☐ Yes ☐ No

      If the data package was received, did constituents exceed the Soil Gas Screening Levels? ..... ☐ Yes ☐ No

   If "**No**," attach technical justification consistent with the NJDEP Vapor Intrusion Technical Guidance.

7. Has indoor air sampling been conducted at the identified building(s)? ..... ☐ Yes ☐ No

   If "**Yes**," has the laboratory data package been received? ..... ☐ Yes ☐ No

      If the data package has been received, did constituents exceed the Indoor Air Screening Levels? .. ☐ Yes ☐ No

   If "**No**," or awaiting indoor air laboratory data package, proceed to Question 12.

8 Has indoor air contamination been identified but not suspected to be from a discharge? (if "**Yes**," attach justification) ☐ Yes ☐ No

9. Were indoor air results above the NJDEP's Rapid Action Levels? ☐ Yes ☐ No

If "**Yes**":

- Provide the date laboratory data package was received: _____
- Follow the **IEC** Guidance Document at http://www.nj.gov/dep/srp/guidance/index.html#iec for required actions and answer the following:
- Was the IEC engineering system response for control implemented for all impacted structures? ☐ Yes ☐ No

  Date implemented: _____ NJDEP Case Manager: _____

10. Were the results of indoor air sampling above the NJDEP's Indoor Air Screening Levels but at, or below, the Rapid Action Levels ☐ Yes ☐ No

If "**Yes**," answer the following:

- Provide the date laboratory data package was received: _____
- Has the Vapor Concern (VC) Response Action Form notifying the NJDEP of the exceedances been submitted? ☐ Yes ☐ No

  Date: _____
- Has a plan to mitigate and monitor the exposure been submitted? ☐ Yes ☐ No

  Date: _____
- Has the Mitigation Response Action Report been submitted? ☐ Yes ☐ No

  Date: _____

11. Do one or more buildings have an Indeterminate VI Pathway status? ☐ Yes ☐ No

If "**Yes**," attach a list of the building(s) with address(s) and block/lot(s)

12. Has the vapor intrusion investigation been completed? ☐ Yes ☐ No

If "**No**", is the vapor intrusion investigation stepping out as part of the site investigation or remedial investigation. (If "No," attach justification) ☐ Yes ☐ No

SECTION F. ECOLOGICAL RECEPTORS

1. Has an Ecological Evaluation (EE) been conducted? [N.J.A.C. 7:26E-1.16] ☒ Yes ☐ No

   Date conducted: 02/28/2019

2. Are any site-related contaminants above any Ecological Screening Criteria? ☒ Yes ☐ No
3. Are there any Environmentally Sensitive Natural Resources (ESNRs) on or adjacent to the site, or potentially impacted by site related contamination? [N.J.A.C. 7:26E-1.16] ☒ Yes ☐ No
4. Do any potential or complete migration pathways exist between Contaminant of Potential Ecological Concern (COPECs) and ESNRs, or did historic migration pathways exist? ☒ Yes ☐ No

If You answered "No" to Questions 2, 3, or 4, above <u>Stop Here</u> (form is complete).

5. If site-related free or residual product is/was present, does/did a potential or complete migration pathway exist to an ESNR? Not Applicable ☐ Yes ☐ No
6. Do the results of an EE trigger a remedial investigation of ecological receptors? [N.J.A.C. 7:26E-4.8] ☒ Yes ☐ No

   If "**Yes**", has a remedial investigation of ecological receptors been conducted? ☐ Yes ☒ No

   Date conducted: _____

7. Do available data indicate an impact (COPECs above Ecological Screening Criteria in ESNRs) to Ecological Receptor(s), Surface water, or Sediment? ☐ Yes ☒ No

   If "**Yes**,"

   a) Check all ESNRs or media that apply:

   ☐ Surface water ☐ Sediment ☐ Soil ☐ Wetlands

   b) If this information is not submitted with an ecological evaluation that includes contaminant summary information, attach a brief summary of all currently available data and a description of all actions to be taken to mitigate exposure.

8. Have COPECs been fully delineated to the Ecological Screening Criteria [N.J.A.C. 7:26E-4.8(a)] in:

   a) Migration pathways ☐ Yes ☒ No

   b) ESNR ☐ Yes ☒ No

9. Has an Ecological Risk Assessment been conducted? ☐ Yes ☒ No

10. Provide the following information for any on-site and/or off-site surface water body, which is potentially impacted by the site related discharges:

Surface Water Body Name	Stream Classification	Antidegradation Designation	Trout Production	Trout Maintenance
Passiac River	FW2-NT	C2	☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

11. Has a Program Interest (PI) or Permit number been issued for any regulated areas by the Division of Land Use Regulation? (e.g. wetlands, transition areas, flood hazard areas, coastal areas, tidelands, etc.). ☐ Yes ☒ No

    If "**Yes**,":

    Identify the type(s) of regulated areas: _____

    Provide the Land Use Regulation Program (LURP) PI or Permit number(s) for the site:

    _____

12 Are there any **pending** applications for LURP jurisdiction letters or approvals under review by the NJDEP for the remediation? ☐ Yes ☒ No

13. Are there any **valid** LURP jurisdiction letters or approvals issued for the remediation? ☐ Yes ☒ No

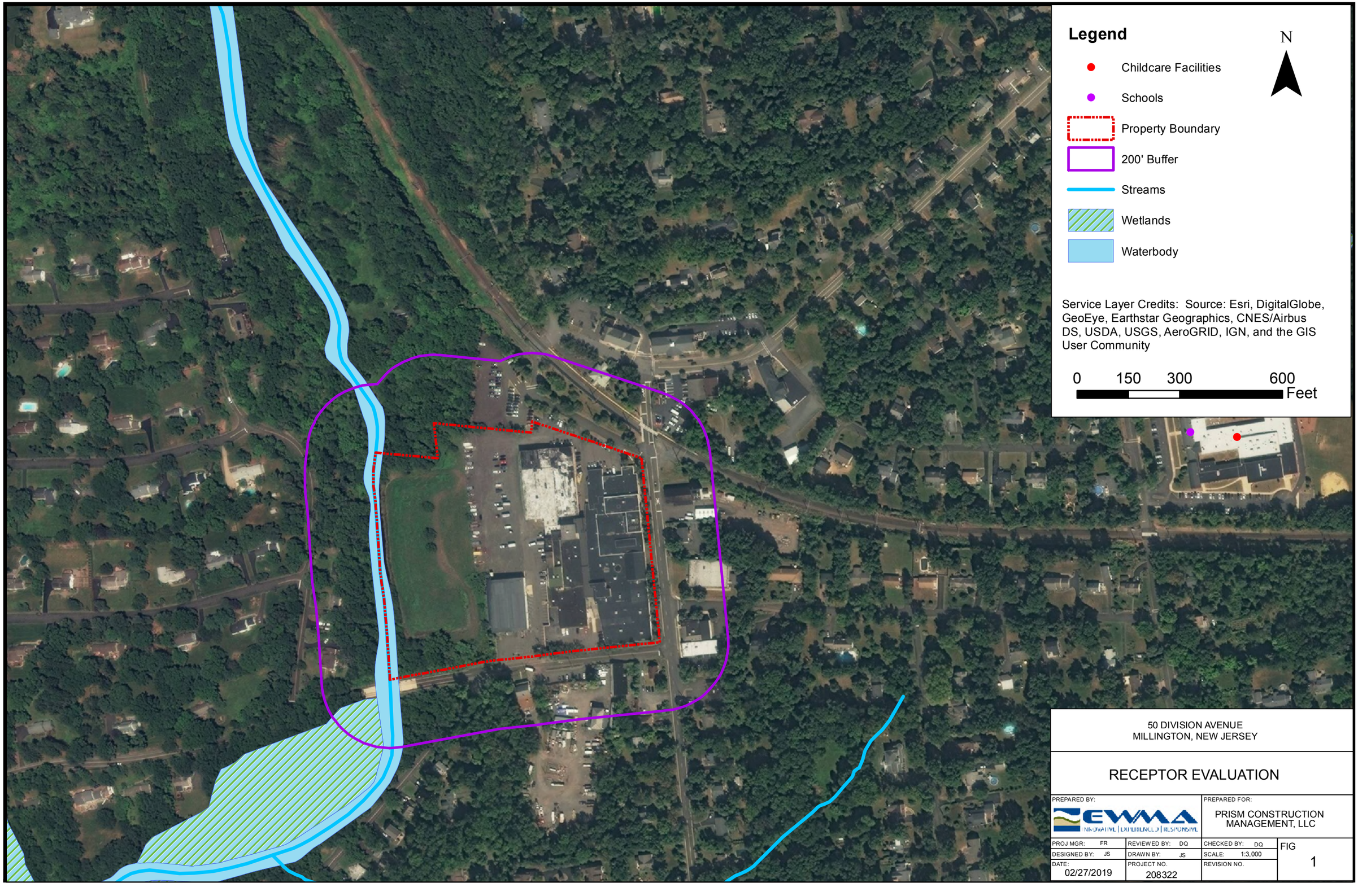
Completed forms should be sent to the municipal clerk, designate health department, and:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Door-to-Door Survey
50 Division Avenue, Millington, New Jersey
NJDEP PI No. 024069

Map ID	Property Owner	Property Address	Township	Zip Code	Block	Lot	Property Type	Domestic or Irrigation Wells (Y/N)	Comments
1	TOWNSHIP OF LONG HILL	River Road	Basking Ridge	7920	6102	1	Public Property	N	
2	BERNARDS, TOWNSHIP OF	85 Pond Hill Road	Basking Ridge	7920	6103	1	Public Property	N	
3	TOWNSHIP OF LONG HILL	Private Road	Millington	7946	12402	11	Public Property	N	
4	BEHR, E THOMAS / JO ANN L	42 Old Mill Road	Millington	7946	12404	1	Residential		NA
5	DOSTER, JOSEPH K. & GEORGEANN M.	33 Pond Hill Road	Basking Ridge	7920	6204	3	Residential		NA
6	REALE, STEPHEN	45 Pond Hill Road	Basking Ridge	7920	6204	2	Residential		NA
7	GIL, CHEOLHEE & HEESUN	156 Thackeray Drive	Basking Ridge	7920	6203	13	Residential		NA
8	JONES, SCOTT & BEASLEY DEVON	27 Pond Hill Road	Basking Ridge	7920	6206	1	Residential		NA
9	JONES, SCOTT/BEASLEY, DEVON	47 Old Mill Road	Millington	7946	12301	2	Residential		NA
10	SCHUMANN, RICHARD & SUSAN	1 Semerad Road	Millington	7946	12502	15	Residential		NA
11	MC COY, DANIEL W/ARLENE W	7 Semerad Road	Millington	7946	12502	14	Residential		NA
12	ZARABARA, NICHOLAS T & RITA M	155 Thackeray Drive	Basking Ridge	7920	6205	2	Residential		NA
13	HUANG, CYNTHIA QIONG & TONY IWEN	161 Thackeray Drive	Basking Ridge	7920	6205	1	Residential		NA
14	SWEENEY, MARY LUCILLE	158 Highland Avenue	Basking Ridge	7920	6205	15	Residential	N	
15	NANDAL, CHANDER B. & KRISHNA	164 Highland Avenue	Basking Ridge	7920	6205	16	Residential	N	
16	D ALESSANDRO, ARTHUR G.	21 Pond Hill Road	Basking Ridge	7920	6206	2	Residential		NA
17	ARACKAN, GEORGE & JOSMY	151 Highland Avenue	Basking Ridge	7920	6207	2	Residential		NA
18	LIGOS, MICHAEL G & LISA A	159 Highland Avenue	Basking Ridge	7920	6207	1	Residential		NA
19	PASTERNAK,WM.P.&M.E.SMITH-PASTERNAK	150 Haas Road	Basking Ridge	7920	6207	9	Residential		NA
20	GOTTARDO, LINO JR	11 Pond Hill Road	Basking Ridge	7920	6206	3	Residential		NA
21	GOTTARDO, LINO & MICHELINA	1 Pond Hill Road	Basking Ridge	7920	6206	4	Residential		NA
22	SEQUEIRA, DANIEL D & WENDY	56 Sunnyslope Street	Millington	7946	12502	18	Residential		NA
23	WATTS, WILLIAM O	48 Sunnyslope Street	Millington	7946	12502	19	Residential		NA
24	ONE NINE THREE TWO LONG HILL, LLC	1936 Long Hill Road	Millington	7946	12502	16	Commercial	N	
24	ONE NINE THREE TWO LONG HILL, LLC	1932 Long Hill Road	Millington	7946	12502	16	Commercial		NA
24	ONE NINE THREE TWO LONG HILL, LLC	1926 Long Hill Road	Millington	7946	12502	16	Commercial		NA
25	NJ DEPT OF TRANS DIR COMMUTER SERV	Division Avenue	Millington	7946	10100	7	Public Property		NA
25	NJ DEPT OF TRANS DIR COMMUTER SERV	Division Avenue	Millington	7946	10100	7.01	Public Property		NA
25	NJ DEPT OF TRANS DIR COMMUTER SERV	Division Avenue	Millington	7946	10100	7.02	Public Property		NA
25	NJ DEPT OF TRANS DIR COMMUTER SERV	Division Avenue	Millington	7946	10100	7.04	Public Property		NA
26	MILLINGTON SAVINGS BANK	1902 Long Hill Road	Millington	7946	12502	17	Commercial	N	
27	ALFER REALTY	1911 Long Hill Road	Millington	7946	12302	1	Commercial	N	
28	ALFER REALTY	1905 Long Hill Road	Millington	7946	12302	5	Commercial	N	
29	ALFER REALTY	1905 Long Hill Road	Millington	7946	12302	5	Commercial		Duplicate
30	KARG FUEL OIL INC	1901 Long Hill Road	Millington	7946	12302	6	Commercial	N	
31	CATALDO, LORRAINE	1893 Long Hill Road	Millington	7946	12302	11	Commercial		NA
32	MILLINGTON VOL FIRE CO	1891 Long Hill Road	Millington	7946	12302	13	Other Exempt		NA
33	MILLINGTON VOL FIRE CO	1891 A Long Hill Road	Millington	7946	12304	1	Other Exempt		NA
34	KARG FUEL OIL INC.	1901 Long Hill Road	Millington	7946	12304	10	Commercial	N	
35	MIGUEL, VICTOR M & JENNIFER M	26 The Crescent	Millington	7946	12304	2	Residential		NA
36	BERNARDS, TOWNSHIP OF	155 Haas Road	Basking Ridge	7920	8301	1	Public Property		NA
37	FEDERAL NATIONAL MORTGAGE ASSN	133 River Road	Millington	7946	12203	32.01	Residential		NA
38	DAUSER, DONALD & RITA	127 River Road	Millington	7946	12203	32.02	Residential		NA
39	MCKENNA, BRIAN & MARGARET	121 River Road	Millington	7946	12203	32.03	Residential		NA
40	MAC DUFF, CATHERINE	115 River Road	Millington	7946	12203	32.04	Residential	N	
41	BERQUIST, DAVID C	109 River Road	Millington	7946	12203	32.05	Residential		NA
42	MC EWAN, STEPHEN M/MARY C	26 Waverly Avenue	Millington	7946	12203	32.06	Residential	N	
43	DEVICO, JOSEPH M/STANTON, JUDITH M	40 Waverly Avenue	Millington	7946	12203	32.07	Residential	N	
44	STONEHOUSE DIVISION LLC	Waverly Avenue	Millington	7946	12101	37	Vacant	N	
45	STONEHOUSE DIVISION LLC	33 Stonehouse Road	Millington	7946	12101	36	Commercial		NA
46	STONEHOUSE DIVISION LLC	33 Stonehouse Road	Millington	7946	12101	36	Commercial		Duplicate
47	STONEHOUSE DIVISION LLC	33 Stonehouse Road	Millington	7946	12101	35	Vacant	N	
48	STONEHOUSE DIVISION LLC	84 Division Avenue	Millington	7946	12101	34	Commercial		NA
49	STONEHOUSE DIVISION LLC	84 Division Avenue	Millington	7946	12101	34	Commercial		Duplicate
50	STONEHOUSE DIVISION LLC	84 Division Avenue	Millington	7946	12101	34	Commercial		Duplicate
51	STONEHOUSE DIVISION LLC	84 Division Avenue	Millington	7946	12101	34	Commercial		Duplicate
52	STONEHOUSE DIVISION LLC	98 Division Avenue	Millington	7946	12101	33	Residential		NA
53	STONEHOUSE DIVISION LLC	116 Division Avenue	Millington	7946	12101	32	Residential		NA
54	PL DEVELOPMENT LLC	45 Division Avenue	Millington	7946	12303	8	Commercial	N	
55	CAMBRIDGE LAND TRANSFER CORP	53 Division Avenue	Millington	7946	12303	8.01	Commercial	N	
56	PL DEVELOPMENT LLC	45 Division Avenue	Millington	7946	12303	8	Commercial		Duplicate
57	BELL ATLANTIC-VERIZON NJ INC%DUFF&P	79 Division Avenue	Millington	7946	12303	2	Commercial		NA
57	BELL ATLANTIC-VERIZON NJ INC%DUFF&P	79 Division Avenue	Millington	7946	12303	2	Commercial		Duplicate
58	PL DEVELOPMENT LLC	45 Division Avenue	Millington	7946	12303	8	Commercial		Duplicate
59	PL DEVELOPMENT LLC	45 Division Avenue	Millington	7946	12303	8	Commercial		Duplicate
60	LO STOCCO, PASQUALINO & GERALDINE	82 Meadowview Road	Millington	7946	12303	1	Residential		NA
61	ROWE, RUTHANNE	76 Meadowview Road	Millington	7946	12303	1.02	Residential	N	
62	FOR THE KIDS, LLC	85 Division Avenue	Millington	7946	12003	1.01	Commercial	N	
63	LONG HILL 85, L.L.C.	85 A Division Avenue	Millington	7946	12003	1	Commercial		NA
64	MOTT, CLAUDIA E	91 Meadowview Road	Millington	7946	12003	2	Residential		NA
65	GOPI NATH PROPERTIES LLC	87 Division Avenue	Millington	7946	12003	5	Commercial	N	
66	MOTT, CLAUDIA E	91 Meadowview Road	Millington	7946	12003	2	Residential		NA
67	RAGSDALE, KEVIN/DIANE	93 Division Avenue	Millington	7946	12003	7	Residential		NA
68	BURDI, KYLE G	103 Division Avenue	Millington	7946	12003	9	Residential		NA
69	NUOTARE INVESTMENTS LLC	115 Division Avenue	Millington	7946	12003	11	Residential		NA
70	HADDICAN/LAM, BERNARD/TRACY	75 Meadowview Road	Millington	7946	12003	3	Residential		NA
71	HOFFMANN, MICHAEL W/LISA	10 Midvale Avenue	Millington	7946	12003	3.01	Residential		NA
72	HOFFMANN, MICHAEL W/LISA	10 Midvale Avenue	Millington	7946	12003	3.01	Residential		Duplicate
73	LAWRENCE, THOMAS/JUANITA	30 Midvale Avenue	Millington	7946	12003	10	Residential		NA
74	SMULLEN, WILLIAM & DOROTHY	141 RIVER RD	Millington	7946	12201	3	Vacant	N	
75	TOWNSHIP OF LONG HILL	RIVER RD	Millington	7946	12201	4	Public Property	N	
76	NEW JERSEY-AMERICAN WATER CO	RIVER RD	Millington	7946	12201	5	Vacant	N	
77	NJ DEPT OF TRANS/DIR COMM SERVICE	Division Ave	Millington	7946	10100	6.01	Public Property	N	

Notes:
NA = No Answer

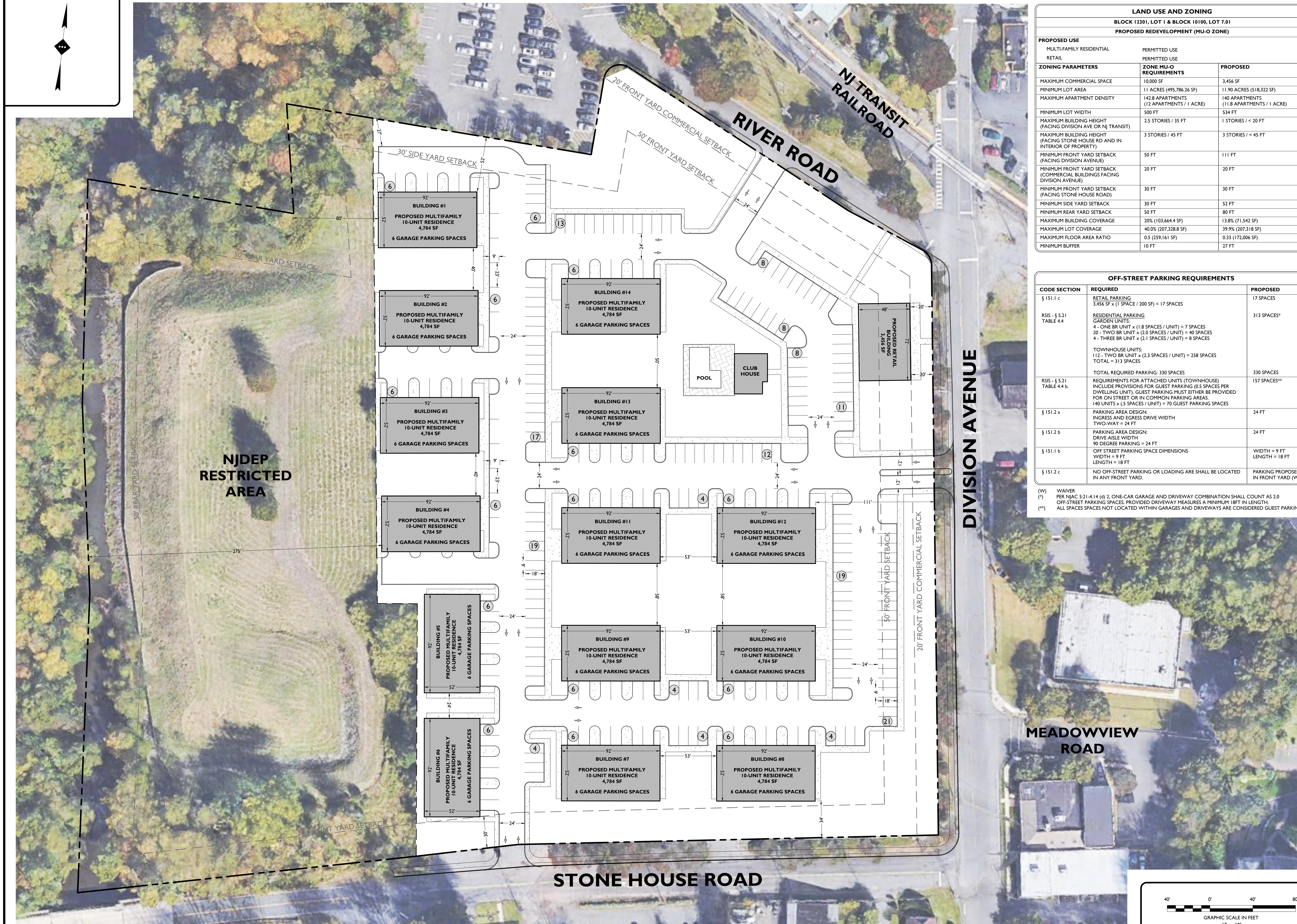


50 DIVISION AVENUE
MILLINGTON, NEW JERSEY

RECEPTOR EVALUATION

PREPARED BY: EWMA		PREPARED FOR: PRISM CONSTRUCTION MANAGEMENT, LLC	
PROJ MGR: FR	REVIEWED BY: DQ	CHECKED BY: DQ	FIG 1
DESIGNED BY: JS	DRAWN BY: JS	SCALE: 1:3,000	
DATE: 02/27/2019	PROJECT NO. 208322	REVISION NO.	

2019 - EWMA G:\Job Data\208000\208322\DRAWING\2019\Figure4.mxd, 2/27/2019, 3:06:32 PM, Jessica_S



LAND USE AND ZONING

BLOCK 12301, LOT 1 & BLOCK 10100, LOT 7.01

PROPOSED REDEVELOPMENT (MU-O ZONE)

PROPOSED USE

- MULTI-FAMILY RESIDENTIAL — PERMITTED USE
- RETAIL — PERMITTED USE

ZONING PARAMETERS	ZONE MU-O REQUIREMENTS	PROPOSED
MAXIMUM COMMERCIAL SPACE	10,000 SF	3,456 SF
MINIMUM LOT AREA	11 ACRES (495,786.26 SF)	11.90 ACRES (518,322 SF)
MAXIMUM APARTMENT DENSITY	142.8 APARTMENTS (12 APARTMENTS / 1 ACRE)	140 APARTMENTS (11.8 APARTMENTS / 1 ACRE)
MINIMUM LOT WIDTH	500 FT	534 FT
MAXIMUM BUILDING HEIGHT (FACING DIVISION AVE OR NJ TRANSIT)	2.5 STORIES / 35 FT	1 STORIES / < 20 FT
MAXIMUM BUILDING HEIGHT (FACING STONE HOUSE RD AND IN INTERIOR OF PROPERTY)	3 STORIES / 45 FT	3 STORIES / < 45 FT
MINIMUM FRONT YARD SETBACK (FACING DIVISION AVENUE)	50 FT	111 FT
MINIMUM FRONT YARD SETBACK (COMMERCIAL BUILDINGS FACING DIVISION AVENUE)	20 FT	20 FT
MINIMUM FRONT YARD SETBACK (FACING STONE HOUSE ROAD)	30 FT	30 FT
MINIMUM SIDE YARD SETBACK	30 FT	52 FT
MINIMUM REAR YARD SETBACK	50 FT	80 FT
MAXIMUM BUILDING COVERAGE	20% (103,664.4 SF)	13.8% (71,542 SF)
MAXIMUM LOT COVERAGE	40.0% (207,328.8 SF)	39.9% (207,318 SF)
MAXIMUM FLOOR AREA RATIO	0.5 (259,161 SF)	0.33 (172,006 SF)
MINIMUM BUFFER	10 FT	27 FT

OFF-STREET PARKING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 151.1 c	RETAIL PARKING 3,456 SF x (1 SPACE / 200 SF) = 17 SPACES	17 SPACES
RSIS - § 5.21 TABLE 4.4	RESIDENTIAL PARKING GARDEN UNITS: 4 - ONE BR UNIT x (1.8 SPACES / UNIT) = 7 SPACES 20 - TWO BR UNIT x (2.0 SPACES / UNIT) = 40 SPACES 4 - THREE BR UNIT x (2.1 SPACES / UNIT) = 8 SPACES TOWNHOUSE UNITS: 112 - TWO BR UNIT x (2.3 SPACES / UNIT) = 258 SPACES TOTAL = 313 SPACES TOTAL REQUIRED PARKING: 330 SPACES	313 SPACES* 330 SPACES
RSIS - § 5.21 TABLE 4.4 b.	REQUIREMENTS FOR ATTACHED UNITS (TOWNHOUSE) INCLUDE PROVISIONS FOR GUEST PARKING (0.5 SPACES PER DWELLING UNIT). GUEST PARKING MUST EITHER BE PROVIDED FOR ON STREET OR IN COMMON PARKING AREAS. 140 UNITS x (.5 SPACES / UNIT) = 70 GUEST PARKING SPACES	157 SPACES**
§ 151.2 a	PARKING AREA DESIGN: INGRESS AND EGRESS DRIVE WIDTH TWO-WAY = 24 FT	24 FT
§ 151.2 b	PARKING AREA DESIGN: DRIVE AISLE WIDTH 90 DEGREE PARKING = 24 FT	24 FT
§ 151.1 b	OFF STREET PARKING SPACE DIMENSIONS WIDTH = 9 FT LENGTH = 18 FT	WIDTH = 9 FT LENGTH = 18 FT
§ 151.2 c	NO OFF-STREET PARKING OR LOADING ARE SHALL BE LOCATED IN ANY FRONT YARD.	PARKING PROPOSED IN FRONT YARD (W)

(W) WAIVER
(*) PER NJAC 5:21-4.14 (d) 2, ONE-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS 2.0 OFF-STREET PARKING SPACES. PROVIDED DRIVEWAY MEASURES A MINIMUM 18FT IN LENGTH.
(**) ALL SPACES SPACES NOT LOCATED WITHIN GARAGES AND DRIVEWAYS ARE CONSIDERED GUEST PARKING

ISSUE	DATE	BY	DESCRIPTION
1	02/06/2019	MJS	ISSUED FOR CLIENT REVIEW

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Rutherford, NJ · Long Island City, NY · Royal Oak, MI
www.stonefieldeng.com
Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 · Fax 201.340.4472

CONCEPT PLAN

ENCLAVE AT MILLINGTON

PROPOSED MIXED USE MULTI-FAMILY AND COMMERCIAL DEVELOPMENT

BLOCK 12301, LOT 1 & BLOCK 10100, LOT 7.01
DIVISION AVENUE & STONE HOUSE ROAD
MILLINGTON, TOWNSHIP OF LONG HILL
MORRIS COUNTY, NEW JERSEY

DRAFT

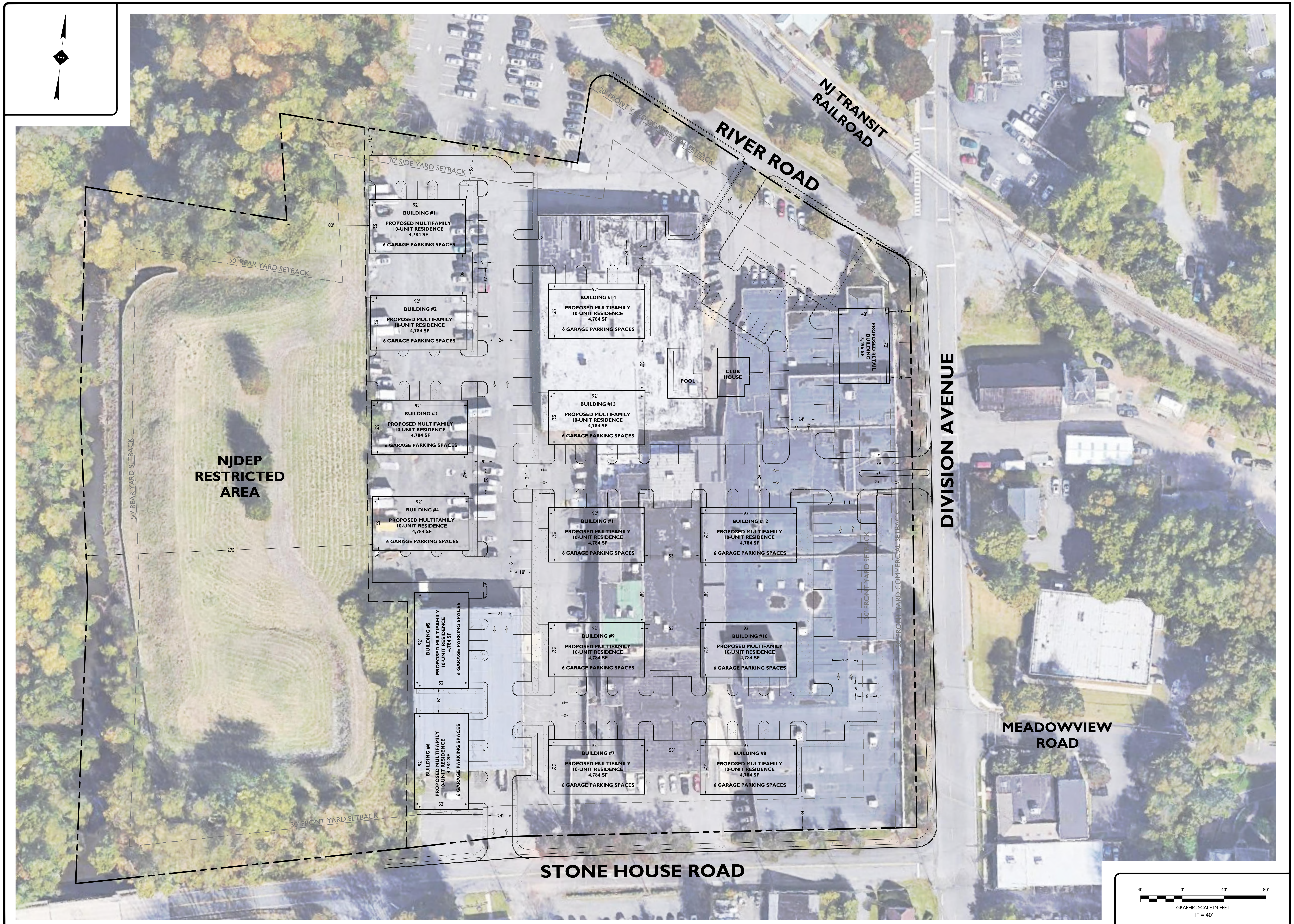
CHARLES D. OLIVO, P.E.
NEW JERSEY LICENSE No. 46719
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 40' PROJECT ID: T-17298

TITLE: CONCEPT F

DRAWING: F-1



ISSUE	1
DATE	02/06/2019
BY	MJS
DESCRIPTION	ISSUED FOR CLIENT REVIEW

NOT APPROVED FOR CONSTRUCTION

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CONCEPT PLAN

ENCLAVE AT MILLINGTON

PROPOSED MIXED USE MULTI-FAMILY AND COMMERCIAL DEVELOPMENT

BLOCK 12301, LOT 1
DIVISION AVENUE & STONE HOUSE ROAD
MILLINGTON, TOWNSHIP OF LONG HILL
MORRIS COUNTY, NEW JERSEY

DRAFT

CHARLES D. OLIVO, P.E.
NEW JERSEY LICENSE No. 46719
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

SCALE: 1" = 40' | PROJECT ID: T-17298

TITLE: **CONCEPT F (AERIAL)**

DRAWING: **F-2**

SITE NAME	Tifa Limited
SITE STREET ADDRESS	50 Division Avenue
SITE COUNTY (select)	Morris
SITE MUNICIPALITY (select)	Long Hill Twp
PROGRAM INTEREST (PI) ID # :	024069
SOURCE COORDINATE X	485574
SOURCE COORDINATE Y	669821
GROUNDWATER FLOW DIRECTION USED (if any)	WSW
WERE APPLICABLE WELL TYPES FOUND? (Yes/No)	Yes
IS THIS SUBMISSION AN UPDATE? (Yes/No)	No
AUTHOR (name of company)	EWMA
AUTHOR STREET ADDRESS (include town and zip code)	100 Misty Lane, P.O. Box 5430, Parsippany, NJ 07054
LSRP LICENSE NUMBER OVERSEEING WORK	668283
LSRP NAME OVERSEEING WORK	Francis X. Rooney
PROFESSIONAL WHO PREPARED SUBMISSION	Nicholas DiVincent
EMAIL CONTACT	nicholas.divincent@ewma.com
PHONE CONTACT	(973) 560-1400 Ext. 166

Download Document	Permit Number	Well Use	Potentially Potable	Document	Date (permitted /drilled /sealed)	Physical Address	County	Municipality	Block	Lot	Location Method	Easting (X)	Northing (Y)	Distance (Feet)	Depth (ft)	Capacity (gal/min)
PDF Document	E201614731	Domestic Replacement	Yes	Record	5/17/2017	141 Church Road	Morris	Long Hill Twp	12403	2	GPS	485354	671400	1,594.25	350	7
PDF Document	E201614731	Domestic Replacement	Yes	Permit	12/9/2016	141 Church Road	Morris	Long Hill Twp	12403	2	GPS	485354	671400	1,594.25	300	10
PDF Document	E201503451	Domestic Replacement	Yes	Record	7/8/2015	437 South Northfield Road	Morris	Long Hill Twp	10201	6.01	GPS	487940	666108	4,402.76	250	7
PDF Document	E201503451	Domestic Replacement	Yes	Permit	4/13/2015	437 South Northfield Road	Morris	Long Hill Twp	10201	6.01	Digital Image	487940	666108	4,402.76	300	10
	E201203407	Domestic	Yes	Decommissioning	8/22/2012	134 Carlton Road	Morris	Long Hill Twp	12806	30	GPS	489563	673609	5,501.01	12	
PDF Document	A1808024	Domestic	Yes	Decommissioning	9/6/2018	360 South Maple Avenue	Somerset	Bernards Twp	3402	34	GPS	481958	676083	7,231.05		
PDF Document	A1807038	Domestic	Yes	Decommissioning	8/8/2018	219 Stone house Rd	Somerset	Bernards Twp	6301	5	GPS	480905	669511	4,679.28		
PDF Document	A1410001	Domestic	Yes	Decommissioning	10/20/2014	437 South Northfield Road	Morris	Long Hill Twp	10201	6.01	Digital Image	487900	666053	4,428.1		
PDF Document	A1407114	Domestic	Yes	Decommissioning	8/4/2014	3219 Valley Road	Somerset	Bernards Twp	8802	6	GPS	479286	667297	6,775.66		
PDF Document	A1305051	Domestic	Yes	Decommissioning	5/17/2013	178 Bungalow Terrace	Morris	Long Hill Twp	12807	6	GPS	486947	675465	5,808.6		
		Domestic	Yes	Decommissioning	5/24/2011	1803 VALLEY ROAD	Morris	Long Hill Twp	1	5	Digital Image	487838	667520	3,228.05		
		Domestic	Yes	Decommissioning	6/19/2009	249 OLD FORGE RD	Morris	Long Hill Twp	12803	11	GIS Parcel Centroid	487071	674905			
	2500004594	Domestic	Yes	Permit	5/23/1955		Morris	Long Hill Twp			Prop Loc - Hard Copy	488615	669823		120	10
	2500004550	Domestic	Yes	Permit	5/11/1955		Morris	Long Hill Twp			Prop Loc - Hard Copy	486612	673871		120	10
	2500004549	Domestic	Yes	Permit	5/11/1955		Morris	Long Hill Twp			Prop Loc - Hard Copy	486612	673871		120	10
	2500004866	Domestic	Yes	Permit	8/2/1955		Somerset	Bernards Twp			Prop Loc - Hard Copy	480450	675189		150	20
	2500063863	Industrial	Yes	Decommissioning	2/2/2010	STONEHOUSE ROAD	Morris	Long Hill Twp	164	4	Prop Loc - Hard Copy	485610	671038			
	2500063863	Industrial	Yes	Permit	7/2/2004	STONEHOUSE ROAD	Morris	Long Hill Twp	164	4	Prop Loc - Hard Copy	485610	671038		300	10
	2500000490	Public Non-Community	Yes	Permit	6/28/1949		Somerset	Bernards Twp			Prop Loc - Hard Copy	482992	674480		150	50
	2500000490	Public Non-Community	Yes	Record	7/9/1949	SOUTH MAPLE AVE	Somerset	Bernards Twp			Prop Loc - Hard Copy	482992	674480		80	0
	2500000592	Domestic	Yes	Permit	11/28/1949		Somerset	Bernards Twp			Prop Loc - Hard Copy	482988	665069		100	4
	2500003391	Domestic	Yes	Permit	4/12/1954		Morris	Long Hill Twp			Prop Loc - Hard Copy	486150	674479		120	10
	2500003356	Domestic	Yes	Permit	3/24/1954		Morris	Long Hill Twp			Prop Loc - Hard Copy	486149	670431		120	10
	2500000616	Domestic	Yes	Permit	1/6/1950		Morris	Long Hill Twp			Prop Loc - Hard Copy	482988	665069		80	3
	2500003082	Domestic	Yes	Permit	11/17/1953		Morris	Long Hill Twp			Prop Loc - Hard Copy	490233	669115		100	4
	2500003077	Domestic	Yes	Permit	11/16/1953		Morris	Long Hill Twp			Prop Loc - Hard Copy	488153	673163		120	10
	2500004010	Domestic	Yes	Permit	10/22/1954		Morris	Long Hill Twp			Prop Loc - Hard Copy	484070	673164		100	7
	2500002180	Domestic	Yes	Permit	10/27/1952		Somerset	Bernardsville Boro			Prop Loc - Hard Copy	481986	663754		130	10
	2500001849	Domestic	Yes	Permit	6/25/1952		Morris	Long Hill Twp			Prop Loc - Hard Copy	490233	669115		100	6
	2500001331	Domestic	Yes	Permit	10/15/1951		Morris	Long Hill Twp			Prop Loc - Hard Copy	489155	674478		50	5
	2500005370	Public Non-Community	Yes	Permit	2/21/1956		Morris	Long Hill Twp			Prop Loc - Hard Copy	489154	665067		300	60
	2500005407	Domestic	Yes	Permit	3/7/1956		Morris	Long Hill Twp			Prop Loc - Hard Copy	485071	671747		100	8
	2500008965	Domestic	Yes	Permit	10/29/1959		Morris	Long Hill Twp			Prop Loc - Hard Copy	488152	666383		150	10
	2500008752	Domestic	Yes	Permit	8/31/1959		Morris	Long Hill Twp			Prop Loc - Hard Copy	490233	673163		100	10
	2500008752	Domestic	Yes	Record	9/15/1959	OLD FARM HOUSE ROAD	Morris	Long Hill Twp			Prop Loc - Dig Image	485558	667126	2,695.46	145	0
	2500007969	Domestic	Yes	Permit	9/16/1958		Somerset	Bernards Twp			Prop Loc - Hard Copy	481987	666385		0	65
	2500007069	Domestic	Yes	Permit	9/11/1957		Morris	Long Hill Twp			Prop Loc - Hard Copy	487150	666383		120	10
	2500006964	Domestic	Yes	Record	1/5/1959	SUNSET PL	Morris	Long Hill Twp			Prop Loc - Dig Image	486586	671173	1,688.89	558	4
	2500009564	Domestic	Yes	Permit	9/13/1960		Somerset	Bernards Twp			Prop Loc - Hard Copy	480985	665070		100	10
	2500010183	Domestic	Yes	Permit	8/28/1961		Somerset	Hillsborough Twp			Prop Loc - Hard Copy	489154	671746		150	15
	2500010085	Domestic	Yes	Permit	7/10/1961		Morris	Long Hill Twp			Prop Loc - Hard Copy	489155	674478		150	7
	2500010320	Public Non-Community	Yes	Permit	11/16/1961	VALLEY RD	Morris	Long Hill Twp			Prop Loc - Hard Copy	486148	666383		200	125
	2500010320	Public Non-Community	Yes	Record	1/31/1962	VALLEY RD	Morris	Long Hill Twp			Prop Loc - Hard Copy	486148	666383		297	0
	2500012525	Domestic	Yes	Permit	11/24/1964		Somerset	Bernards Twp			Prop Loc - Hard Copy	485072	673164		200	10
	2500012307	Domestic	Yes	Permit	9/9/1964		Morris	Long Hill Twp			Prop Loc - Hard Copy	489155	674478		100	7
	2500011766	Domestic	Yes	Permit	1/15/1964		Morris	Victory Gardens Boro			Prop Loc - Hard Copy	482991	671748		100	10
	2500011766	Domestic	Yes	Record	1/20/1964	TALL TIMBER LANE	Morris	Victory Gardens Boro			Prop Loc - Hard Copy	482991	671748		208	0
	2500013928	Domestic	Yes	Permit	8/8/1966		Morris	Long Hill Twp			Prop Loc - Hard Copy	489155	674478		150	20
	2500015061	Domestic	Yes	Permit	12/9/1968		Morris	Long Hill Twp			Prop Loc - Hard Copy	486150	674479		150	15
	2500014421	Domestic	Yes	Permit	7/6/1967		Morris	Long Hill Twp			Prop Loc - Hard Copy	486150	674479		200	20
	2500014420	Domestic	Yes	Permit	7/5/1967		Morris	Long Hill Twp			Prop Loc - Hard Copy	489155	674478		150	10
	2500014420	Domestic	Yes	Record	3/1/1968	CARLTON RD	Morris	Long Hill Twp			Prop Loc - Hard Copy	489155	674478		114	0
	2500015555	Domestic	Yes	Permit	6/18/1970		Somerset	Bernards Twp			Prop Loc - Hard Copy	482992	674480		100	10
	2500017029	Domestic	Yes	Permit	7/5/1973		Somerset	Bernards Twp			Prop Loc - Hard Copy	481987	666385		200	20
	2500017361	Domestic	Yes	Permit	2/25/1974		Morris	Long Hill Twp			Prop Loc - Hard Copy	490233	669115		150	20
	2500017452	Irrigation	Yes	Decommissioning	2/14/2001	3 AARON DRIVE	Morris	Long Hill Twp	1	1	Prop Loc - Hard Copy	487150	666383		300	0
	2500017452	Irrigation	Yes	Permit	5/1/1974	VALLEY RD	Morris	Long Hill Twp			Prop Loc - Hard Copy	487150	666383		300	105
	2500017452	Irrigation	Yes	Record	4/30/1974	RAINBOW DR	Morris	Long Hill Twp			Prop Loc - Hard Copy	487150	666383		300	0
	2500017411	Domestic	Yes	Permit	3/27/1974		Morris	Long Hill Twp	220	6-7	Prop Loc - Hard Copy	488153	674478		150	20
	2500017880	Domestic	Yes	Permit	4/14/1975		Somerset	Warren Twp	238	9	Prop Loc - Hard Copy	482989	667801		400	8
	2500018696	Domestic	Yes	Permit	8/24/1976		Morris	Long Hill Twp	110	25	Prop Loc - Hard Copy	485070	667800		125	20
	2500018695	Domestic	Yes	Permit	8/24/1976		Morris	Long Hill Twp	110	23	Prop Loc - Hard Copy	485070	667800		125	20
	2500021646	Domestic	Yes	Permit	10/6/1980		Morris	Long Hill Twp	126	3 - 2	Prop Loc - Hard Copy	482991	671748		200	10
	2500021646	Domestic	Yes	Record	11/13/1980	OAKS RD	Morris	Long Hill Twp	126	3-2	Prop Loc - Dig Image	484532	671174	1,707.55	250	0
	2500021637	Domestic	Yes	Permit	10/1/1980		Morris	Long Hill Twp	126	1	Prop Loc - Hard Copy	482990	670432		200	10
	2500021637	Domestic	Yes	Record	3/2/1981	BASKING RIDGE RD	Morris	Long Hill Twp	126	1	Prop Loc - Dig Image	487614	672522	3,384.62	300	0
	2500021784	Domestic	Yes	Record	1/12/1981	CARLTON RD	Morris	Long Hill Twp	220	6-13,6-19	Prop Loc - Dig Image	490695	672522	5,789.76	150	9
	2500021776	Domestic	Yes	Record	12/29/1980	VALLEY RD	Somerset	Bernards Twp	185	19	Prop Loc - Dig Image	491723	668474	6,294.34	250	0
	2500021773	Domestic	Yes	Record	1/29/1981	STONEHOUSE RD	Somerset	Bernards Twp	164	4	Prop Loc - Dig Image	481450	671175	4,340.59	460	0
	2500023764	Domestic	Yes	Permit	4/8/1983		Somerset	Bernards Twp	150	20	Prop Loc - Hard Copy	488692	673770		200	10
	2500023764	Domestic	Yes	Record	5/11/1983	STONEHOUSE RD	Somerset	Bernards Twp	150	20	Prop Loc - Dig Image	481451	673873	5,780.84	800	0
	2500025174	Domestic	Yes	Permit	6/30/1984		Morris	Long Hill Twp	1	5.1	Prop Loc - Hard Copy	487690	666990		250	10
	2500025174	Domestic	Yes	Record	7/1/1984	S NORTHFIELD RD	Morris	Long Hill Twp	1	5.1	Prop Loc - Hard Copy	487690	666990		200	0
	2500024124	Domestic	Yes	Permit	8/8/1983		Somerset	Bernards Twp	164	4	Prop Loc - Hard Copy	482528	671039		200	10
	2500024124	Domestic	Yes	Record	10/4/1983	STONEHOUSE RD	Somerset	Bernards Twp	164	4	Prop Loc - Hard Copy	482528	671039		800	0
	2500026561	Domestic	Yes	Permit	7/22/1985		Somerset	Bernards Twp	185	1902	Prop Loc - Hard Copy	484607	664360		170	10
	2500026561	Domestic	Yes	Record	8/22/1985	SUN RD	Somerset	Bernards Twp	185	19.02	Prop Loc - Dig Image	483502	664428	5,777.5	190	10
	2500026347	Domestic	Yes	Permit	7/18/1985		Morris	Long Hill Twp	121	33-B	Prop Loc - Hard Copy	485611	672455		200	10
	2500026347	Domestic	Yes	Record	6/20/1985	87 BASKING RIDGE RD	Morris	Long Hill Twp	121	33-B	Prop Loc - Hard Copy	485611	672455		150	10
	2500026084	Domestic	Yes	Record	4/25/1985	CARLTON RD	Morris	Long Hill Twp	220	6.10	Prop Loc - Dig Image	489668	675220	6,776.01	340	0
	2500030177	Domestic	Yes	Permit	8/18/1987		Somerset	Bernards Twp	169	5.02	Prop Loc - Hard Copy	485071	670431		150	10
	2500030177	Domestic	Yes	Record	8/23/1987	11 POND HILL ROAD	Somerset	Bernards Twp	169	5.02	Prop Loc - Dig Image	484531	669824	1,042.74	18	10
	2500031242	Domestic	Yes	Permit	3/18/1988	WOOD GATE LANE	Morris	Long Hill Twp	220	1.02	Prop Loc - Hard Copy	489155	673163		150	10
	2500031242	Domestic	Yes	Record	4/8/1988	WOOD GATE LANE	Morris	Long Hill Twp	220	1.02	Prop Loc - Hard Copy	489155	673163		105	10
	2500045941	Domestic	Yes	Permit	9/27/1994	SUN ROAD	Somerset	Bernards Twp	185	1903	Prop Loc - Hard Copy	484067	665069		250	10
	2500045941	Domestic	Yes	Record	10/11/1994	SUN ROAD	Somerset	Bernards Twp	185	1903	Prop Loc - Hard Copy	484067	665069		250	10
	2500048736	Irrigation	Yes	Permit	3/20/1996	21 ST. NICKOLAS WAY	Somerset	Bernards Twp	182.10	34.04	Prop Loc - Hard Copy	479907	667802		200	15
	2500048736	Irrigation	Yes	Record	4/4/1996	21 ST. NICKOLAS WAY	Somerset	Bernards Twp	182.10	34.04	Prop Loc - Hard Copy	479907	667802		190	0
	2500059290	Irrigation	Yes	Permit	11/28/2001	404 KING GEORGE ROAD	Somerset	Bernards Twp	185	20.2	Prop Loc - Hard Copy	484067	663753		500	20
	2500059290	Irrigation	Yes	Record	12/5/2002	404 KING GEORGE ROAD	Somerset	Bernards Twp	185	20.2	Prop Loc - Hard Copy	484067	663753		320	50

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 2

Photograph Log

PHOTOGRAPHIC LOG

Delete Page

Client Name:	Site Location:	Project No.
Prism Millington, LLC	50 Division Avenue, Millington, NJ 07946	208322

Photo No.	Date:
1	2/28/2019

Direction Photo Taken:

Down

Description:

Photograph of the floor drain within the Wild Bill Soda lease space within Building 2.

Photo No.	Date:
2	2/28/2019

Direction Photo Taken:

Down

Description:

Photograph of the concrete floor sump is located in the painters shop within Premier Painting of NJ leased spaced within Building 3.

PHOTOGRAPHIC LOG

Delete Page

Client Name:	Site Location:	Project No.
Prism Millington, LLC	50 Division Avenue, Millington, NJ 07946	208322

Photo No.	Date:
3	2/28/2019

Direction Photo Taken:

West-Northwest

Description:

Photograph of the pad mounted electrical transformer off the corner of Building 2.

Photo No.	Date:
4	2/28/2019

Direction Photo Taken:

North

Description:

Photograph of the transformer house located east of Building 1, along Division Avenue.

PHOTOGRAPHIC LOG

Delete Page

Client Name:	Site Location:	Project No.
Prism Millington, LLC	50 Division Avenue, Millington, NJ 07946	208322

Photo No. 5 | **Date:** 2/28/2019

Direction Photo Taken:

West-Northwest

Description:

Photograph of two dumpsters located between Building 1 and 2.

Photo No. 6 | **Date:** 2/28/2019

Direction Photo Taken:

East

Description:

Photograph of three dumpsters located outside the Premier Painting of NJ leased spaced of Building 3. Note MW-1R in the bottom of the photograph.

PHOTOGRAPHIC LOG

Delete Page

Client Name:	Site Location:	Project No.
Prism Millington, LLC	50 Division Avenue, Millington, NJ 07946	208322

Photo No.	Date:
7	2/28/2019

Direction Photo Taken:

South

Description:

Photograph of the steel 55-gallon in the western portion of the parking lot, near the asbestos landfill.

Photo No.	Date:
8	2/28/2019

Direction Photo Taken:

Down

Description:

Photograph of MW-901 located east of Building 1, along Division Avenue.

PHOTOGRAPHIC LOG

Delete Page

Client Name:	Site Location:	Project No.
Prism Millington, LLC	50 Division Avenue, Millington, NJ 07946	208322

Photo No.	Date:
9	2/28/2019

Direction Photo Taken:

West-Southwest

Description:

Photograph of the asbestos landfill area in the western portion of the Property.

Photo No.	Date:
10	2/28/2019

Direction Photo Taken:

West-Northwest

Description:

Photograph of the asbestos landfill area in the western portion of the Property.

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 3

EDR Sanborn™ Fire Insurance Maps

50 Division Avenue

50 Division Avenue

Millington, NJ 07946

Inquiry Number: 5565949.3

February 19, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

02/19/19

Site Name:

50 Division Avenue
50 Division Avenue
Millington, NJ 07946
EDR Inquiry # 5565949.3

Client Name:

EWMA, LLC
100 Misty Lane
Parsippany, NJ 07054
Contact: Frank Rooney

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by EWMA, LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # E5B9-402E-A59E

PO # 30221

Project 208322

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: E5B9-402E-A59E

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 4

EDR City Directory Report

50 Division Avenue
50 Division Avenue
Millington, NJ 07946

Inquiry Number: 5565949.5
February 20, 2019

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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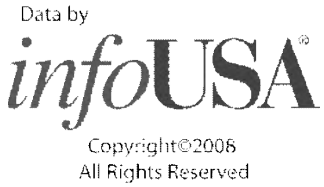

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1987	☑	☐	City's City Directory
1982	☑	☐	City's City Directory
1979	☑	☐	City's City Directory
1975	☑	☐	City's City Directory
1972	☑	☐	City's City Directory

FINDINGS

TARGET PROPERTY STREET

50 Division Avenue
Millington, NJ 07946

Year	*CD Image*	*Source*
DIVISION AVE		
2014	pg A1	EDR Digital Archive
2010	pg A2	EDR Digital Archive
2005	pg A4	EDR Digital Archive
2000	pg A5	EDR Digital Archive
1995	pg A6	EDR Digital Archive
1992	pg A7	EDR Digital Archive
1987	pg A8	City's City Directory
1982	pg A9	City's City Directory
1979	pg A10	City's City Directory
1975	pg A11	City's City Directory
1972	pg A12	City's City Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
■	-	EDR Digital Archive

DIVISION AVE 2014

40	HASHEMA INTERNATIONAL PARTNERS
45	RUNYON A D CO
50	ALLBOOK INC
	ALLIANCE PRTG PROMOTIONAL SVCS
	AUTODRILL LLC
	C P ELECTRICAL ENGR & CONTG
	GARMENTS FOR LESS INC
	GATOR LURES
	GELLNER INDUSTRIAL LLC
	GENII RESEARCH
	GRACE MATERIAL HANDLING CO INC
	HUSTER BROKERAGE LTD
	JENCKS SIGNS CORP
	MEGAN GUNN
	OVEISSI INTERNATIONAL
	PRESTIGE CUSTOM CABINTRY LLC
	PROFORMA ALLIANCE PRTG PR
	PROVIDET SERVICE ASSOC INC
	RW DELIGHTS INC
	SOMERSET HILLS DOORS
	SWARTZ MARC
	TAKE FLIGHT DANCE CENTER LLC
	TIFA REALTY INC
	TOP FLIGHT GYMNASTICS
	WINTRONICS INC
	Z & R CUTTER SERVICE INC
53	CAMBRIDGE LAND TRANSFER CORP
59	A & M PAINTERS
	LONG HILL CHAMBER OF COMMERCE
85	FOR THE KIDS (FTK) LLC
	FROMARTHARIE INC
	SILBERT REALTY & MANAGEMENT CO
	SPECIALTIES INC
87	COUNTRY FARMS
93	RAGSDALE, KEVIN C
98	STASZCZAK, JOSEPH
103	ATKINS, ROBERT M
115	DELLAVENTURA, LUCY P
116	VARGAS, ROGER I
126	SMITH, STEVE E
127	ZIEGELMEIER, MA
137	MATTHEISS, JAMES T
154	BARTELL, LEONARD J
	SPELLMAN, JOSEPH L

Target Street	Cross Street	Source
■	-	EDR Digital Archive

DIVISION AVE 2010

18	ART RUGS
22	FINCH, CHARLES
45	A D RUNYON MECHANICALS
	PAULSEN INSULATION CO INC
	RUNYON A D CO
50	A TRAVEL A
	ALLBOOK INC
	ALLIANCE PRTG PROMOTIONAL SVCS
	AUTODRILL LLC
	BIO REPOSITORY RESOURCES LLC
	BONDUELLE INC
	C M S COMMODITY MGT SYSTEMS
	COMMODITY MANAGEMENT CORP
	DOLCE DESSERTS
	DRE IMPORTS INC
	ELEFANTE MUSIC
	FABA MARIO
	GATOR LURES
	GENII RESEARCH
	GRACE MATERIAL HANDLING CO INC
	HIGH GEAR CYCLERY INC
	IMPERIAL METAL PRODUCTS INC
	JENCKS SIGNS CORP
	JERSEY CRUSHER INC
	LAWN DOCTOR
	MEGIIE EXPORT INC
	NEAC INC
	NORTHEAST INSTRUMENTS INC
	OF GLORY AND GRACE STUDIOS
	OVEISSI INTERNATIONAL
	PLANET ARY & PASTRY
	PRESTIGE CUSTOM CABINTRY LLC
	PROFORMA ALLIANCE PRTG PR
	PROVIDET SERVICE ASSOC INC
	ROMAN PLUMBING HEATING
	RW DELIGHTS INC
	SOMERSET HILLS DOORS AND ARCHI
	SUMMIT PROTECTIVE TECH CORP
	SWARTZ MARC
	SWEET TOOTH DISTRIBUTORS INC
	TIFA INTERNATIONAL LLC
	TIFA LTD
	TOP FLIGHT GYMNASTICS
	VIKHEINE PRECISION
	WILD BILLS SODA
	WINTRONICS INC
	WOOD WORKS
	Z & R CUTTER SERVICE INC
53	CAMBRIDGE LAND TRANSFER CORP
59	CETCTEST PASSLOW

DIVISION AVE 2010 (Cont'd)

59	LONG HILL CHAMBER OF COMMERCE
	MICHAEL R DRIBBON PHD
85	FOR THE KIDS (FTK) LLC
	FROMARTHARIE INC
	LOWSIL CONSTRUCTION INC
	RARITAN TOWN CENTER LLC
	SILBERT REALTY & MANAGEMENT CO
	SOLERA INC
	SPECILTIES AGR-LMENTATIONS INC
87	COUNTRY FARMS
93	PAINTING BY PENNIE
	RAGSDALE, KEVIN C
103	ATKINS, ROBERT M
115	DELLA, VENTURA F
126	SMITH, STEVE E
127	ZIEGELMEIER, WALTER J
137	MATTHEISS, JAMES T

Target Street	Cross Street	Source
	-	EDR Digital Archive

DIVISION AVE 2005

5	VERIZON NEW JERSEY INC
22	FINCH, CHARLES
45	A D RUNYON MECHANICALS LLC
	RUNYON A D CO
50	360 VISCOM LLC
	A TRAVEL A
	ALLIANCE PRTG PROMOTIONAL SVCS
	AUTODRILL LLC
	BEACON LIGHT DIVERSIFIED FING
	BONDUELLE INC
	DICE BROTHERS INC
	DRE IMPORTS
	DRE IMPORTS INC
	EVANS HAGEN & CO
	GELLNER & CO INC
	GRACE MATERIAL HANDLING CO
	IMPERIAL METAL PRODUCTS INC
	JERSEY CRUSHER INC
	LAWN DOCTOR
	LUX DIGITAL LLC
	NORTHEAST INSTRUMENTS INC
	OVEISSI INTERNATIONAL
	PRESTIGE CUSTOM CABINTRY LLC
	PROFORMA ALLIANCE PRTG PR
	PROVIDENT SERVICE ASSOCIATE
	SWARTZ MARC
	SWEET TOOTH DISTRIBUTORS INC
	TIFA INTERNATIONAL LLC
	TKG IMAGING INC
	VIKHEINE PRECISION
	WINTRONICS INC
	WOOD WORKS
	Z & R CUTTER SERVICE INC
53	BELDON H P
84	CORNELL DATA SYSTEMS INC
85	DUTRA ENTERPRISES LLC
	FROMARTHARIE INC
	LAKELAND CORP
	LOWSIL CONSTRUCTION INC
	QUANTUM SERVICES INC
	SILBERT REALTY & MANAGEMENT
	SPECIALITIES AGRO ALIMENTATION
93	INGERSOLL, JOHN H
	PAINTING BY PENNIE
103	ATKINS, ROBERT M
115	DELLA, VENTURA F
126	SMITH, STEVE E
127	ZIEGELMEIER, WALTER J
137	MATTHEISS, JAMES T
154	SPELLMAN, MARK

Target Street	Cross Street	Source
	-	EDR Digital Archive

DIVISION AVE 2000

5	VERIZON NEW JERSEY INC
45	CURCIO VINCE PLUMBING AND HTG
	MOORE, SHERRY K
	RUNYON A D CO
50	AUTO DRILL LLC
	BEACON LIGHT DIVERSIFIED FING
	BONDUELLE INC
	BURKE REMODELING
	CHIARAMONTE OFFSET PRTG & COMP
	DASH PRINTING & IMAGING INC
	GELLNER & CO INC
	IMPERIAL METAL INC
	IMPERIAL METAL PRODUCTS INC
	LUX DIGITAL INC
	MEGIIE EXPORT INC
	NORTHEAST INSTRUMENTS INC
	OVEISSI INTERNATIONAL
	PROVIDET SERVICE ASSOCIATE
	RAYTEK CORPORATION
	TEXPAR TRADING CORP
	TIFA LTD
	VIKHEINE PRECISION
	WINTRONICS INC
	Z & R CUTTER SERVICE INC
53	BELDON HARRY P ATTY
	BOLLER, JANET L
	PINKHAM, DJ
78	SCHMALE, DENISE
84	SHRADER, CRAIG C
85	LEITNER USA
	PALUMBO ASSOCIATES INC
	WHITMORES AUTO REPAIR
87	CUMBERLAND FARMS INC
93	INGERSOLL, JOHN H
	PAINTING BY PENNIE
98	SCHMALE, DENISE
103	ATKINS, ROBERT M
115	VENTURA, JOANN D
126	LEGATO, G
127	ZIEGELMEIER, WALTER
137	MATTHEISS, JAMES
154	ZACHARIAS, BLANCHE

DIVISION AVE 1995

45	CURCIO VINCE PLUMBING AND HTG
	RUNYON A D CO
50	ACCURATE WELDING INC
	ANDERSON, D
	BEACON LIGHT DIVERSIFIED FING
	CHIARAMONTE OFFSET PRTG & COMP
	DASH-OFFSET INC
	FRANZ CABINET CO
	GELLNER & CO INC
	MEADE KENNETH
	MEGIIE EXPORT INC
	NORTHEAST INSTRUMENTS
	NORTHEAST INSTRUMENTS INC
	ORBIT COMPUTER SYSTEMS INC
	SPHINX ELECTRO PLATING CORP
	TEXPAR TRADING CORP
	TIFA LTD
	VIKHEINE PRECISION
	WINTRONICS INC
	Z & R CUTTER SERVICE INC
53	BELDON HARRY P ATTY
85	CARBONE LANDSCAPING INC
	LEITNER USA INC
	PALUMBO ASSOCIATES INC
	PALUMBO, RALPH D
	WHITMORES AUTO REPAIR
87	CUMBERLAND FARMS INC
93	MCGREGOR DOUGLAS LANDSCAPING
	MCGREGOR, DOUGLAS R
98	BARRETT, S
103	ATKINS, ROBERT M
115	OCCUPANT UNKNOWNN
126	LEGATO, GERARD
127	ZIEGELMEIER, WALTER
137	CUTILLO, FRANK
154	ZACHARIAS, EDMUND

Target Street	Cross Street	Source
	-	EDR Digital Archive

DIVISION AVE 1992

5	NEW JERSEY BELL TELEPHONE CO
45	RUNYON A D & CO
50	A M HOME NEWS SERVICE INC
	ACCURATE WELDING
	BEACON LIGHT DIVERSIFIED FING
	CHIARAMONTE OFFSET PRTG & COMP
	CRYSTALINE OPTICS INC
	DASH-OFFSET INC
	GELLNER & CO INC
	HFI
	K H ENTERPRISES INC
	MARLIN CANDLE CO
	MEADE KENNETH
	MULAB INC
	NELSON G A
	NORTHEAST INSTRUMENTS
	SPHINX ELECTRO PLATING CORP
	TEXPAR TRADING CORP
	TIFA LTD
	VIKHEINE MACHINE TOOL CORP
	WINTRONICS INC
	Z & R CUTTER SERVICE INC
53	BELDON H P
85	DILLON JOSEPH R INC
	PALUMBO ASSOCIATES INC
87	CUMBERLAND FARMS INC
93	MCGREGOR DOUGLAS LANDSCAPING
103	ATKINS, ROBERT M
115	DELLAVENTURA, FRANK P
116	EGBERTS, RUSSELL A
126	LEGATO, GERARD
127	ZIEGELMEIER, WALTER
154	ZACHARIAS, EDMUND

Target Street	Cross Street	Source
	-	City's City Directory

DIVISION AVE 1987

IS COUNTY — NOVEMBER

DIVISION AVE

(PO Millington 07946)

MILLINGTON

From Passaic Valley Rd nw to Oaks Rd, 2 sw of Northfield Rd

– –	#Cumberland Farms Food Stores	647-9789	00
45	#Runyan A D Co fuel oil & burner svc	647-0018	00
50	#Accurate Welding	+647-8181	87
50	#Acro Industries	+580-9121	87
50	#Am Home News Svc	647-9445	86
50	#Chiaramonte Offset Printing & Composition	647-5814	87
50	#Computer Support Of North America	647-5156	87
50	#Crystaline Optics	647-1113	85
50	#Custom Woodwork	+580-9222	87
50	#Esco Precision Inc	647-6300	82
50	#Gellner & Co Inc	647-5208	84
50	#Growth Catering	+647-9324	87
50	#Iden Industries	647-2734	80
50	#KH Enterprises	647-7880	83
50	#Lands End Woodwrks	+580-9339	87
50	#Mulab Inc	647-0525	81
50	#Pro-Com Inc	647-0223	86
50	#Sphinx Electro-Plating Corp	647-0050	82
50	#Teapar Trading Corporation	647-1960	81
50	#The Ofc Commissary	+647-0897	87
50	#Tifa Ltd	647-4570	79
50	#Tonny Ind Co Inc	647-9496	86
50	#US Transit Travel	647-9455	86
50	#United Microcomputer Applications Inc	+580-9119	87
50	#Watchung Mountain News Service	647-1930	86
50	#Z & R Cutter Svc	647-6757	84
53	#Beldon Jr P Lwyr	647-4000	00
53	Meyer C	+647-4380	87
84	#Nati Roofing Inc	647-4343	00
85	#City Of Millington	647-9814	00
85	Dillon Inc Jos R	647-6979	85
85	#Millington Muffler & Repair Service	647-6979	84
85	#Palumbo Assoc Inc	647-5252	84
85	#Stained Glass Overlay	+647-6464	87
93	#McGregor Landscaping	647-9501	86
98	Yett C Clayton	580-0911	86
103	Atkins Robert M	647-7038	83
116	Della Ventura F P	647-0239	79
115	Occupant	NA	85
116	McElhinney Robt	647-9501	84
126	Legato C	647-0104	78
127	Ziegelmeier W	647-4455	00
137	Carillo F	647-5369	00
151	#Berton Business Forms Inc	647-5100	00
151	Occupant	NA	00
154	Zacharias B	647-3809	83
154	Zacharias F	647-0983	00
167	O'Brien James P	647-6371	81
178	Gemes Richard J	647-7077	85
198	Fitzgerald James E	647-7055	82
214	Lambrechi V G	+580-1975	87
220	Vaska Andres	647-0686	84
223	Montagna R	647-5714	78
223	Occupant	NA	87
223	Pokryska S	647-2659	85
234	Cavadini A J	647-3243	00
249	Pierson Lynn	647-3663	86
250	Occupant	NA	00

34-BUS 24-RES 10-NEW

DIVISION LN

(PO RR 4 Andover 07821)

CRANBERRY LAKE

– –	Occupant	NA	00
3	Reilly Vincent	347-6324	87
8	Frank L	347-1817	83
9	Bowd M E	347-3138	81
10	Gabrielsen Carl Jr	347-3269	85
11	Lloyd James A	347-7947	82
13	Vaughan H	347-0493	85
14	Olive Casper	347-1263	86
15	Hock George Jr	347-6947	81
17	Callahan Irene	691-2951	85
21	Manzione Jos A	347-4906	81
23	Healy T E	347-6138	82
24	Submanko G	347-3660	85

0-BUS 13-RES 0-NEW

Target Street	Cross Street	Source
	-	City's City Directory

DIVISION AVE 1982

MORRIS

DICKERSON ST E Contd

DOVER

38 Occupant NA 00
62 Vazquez Juan 366-0050 00
90 #Jersey Sheet Metal & Machine 366-8628 00
100 #Consolidated Metals Corp 361-4014 00
5-BUS 7-RES 0-NEW

DICKERSON MINE RD

(PO Dover 07801)

MINE HILL

From Canfield Ave ne & southwest

Ford J J 584-5317 00
- Occupant NA 00
1 La Franco B 584-5853 79
2 Mason P A Jr 584-4836 00
4 Tronky Andy 584-2779 80
4 Vanderhoef Wm C 584-1526 00
6 Brandon Wm E Jr 584-6146 00
8 Woodhull C A 584-0624 78
10 Blandhard R L 584-0526 81
11 Bryant J 584-3556 81
11 Occupant NA 00
12 Amato Jack C 584-7490 00
13 Occupant NA 79
14 Pizzie A 584-7087 00
15 Maida Jos A 584-4690 00
16 Occupant NA 00
17 Dunster R Sr 584-0179 00
18 Trowbridge K E 584-7653 00
19 Holmes W 584-0483 00
20 Smith W F Jr 584-1604 00
22 Scully M D 584-8537 00
25 Keen Jerry 927-0169 78
29 Nicoletti Frank 584-7448 00
0-BUS 23-RES 0-NEW

DICKSON AVE (Boonton)

See Dixon Ave (Boonton)

DICKSON MILL RD

(PO Green Village 07935)

GREEN VILLAGE

-- Boning A D 377-1348 00
-- Dickson Albert 377-4751 00
-- Koven O H Private Stables 377-4833 00
-- Koven G H 377-1707 00
#Koven G H Supt's Cottage 377-4734 00
-- Koven G H III 377-9061 79
-- Kuckus Thomas A 377-7619 81
Occupant NA 00
Occupant NA 00
-- Occupant NA 00
-- Sitzer A L 377-7614 00
Ward Thomas 965-9257 81
1-BUS 11-RES 0-NEW

DILLON DR

(PO Oak Ridge 07438)

MILTON

3 Dreschsel Paul 697-4999 77
6 Bayley Edw 697-6486 82
0-BUS 2-RES 0-NEW

DINAH RD

(PO Landing 07850)

SHORE HILL ESTATES

500 Occupant NA 00
501 Occupant NA 00
502 Newton Jeffrey R 398-3513 80
504 Occupant NA 79
504 Occupant NA 79
505 Occupant NA 78
505 Puglisi Anthony J 398-0144 79
505 Puglisi C 398-6928 00
506 Bihrer P G 398-6871 82
507 Chanley Andrew B 398-2020 00
508 MacDonald D A 398-4816 00
509 Reeves Paul J 398-8987 79
510 Buckley John D 398-2251 00
513 Kastel Karl 398-7661 00
514 Wrobel M S 398-1837 00
515 Rosario Jimmy 398-5048 79
516 Occupant NA 00
517 Spurr Robt 398-8669 00
520 Horton J H 770-0612 78
521 Conroy T J 398-0095 78
521 Gajewski D 398-7655 79
521 Styles Marie C 398-0095 78
522 Johnston D H 398-5040 00
524 Coble Theo 398-0258 78
524 Sharp D H 398-9175 77
526 McManus P 398-6745 00
528 Gottlieb Ira M 398-0436 80
528 Gottlieb Stanley N 398-2391 79
529 Occupant NA 00
529 Barton H M 398-0273 00
530 Yudiska M +398-1607 82
532 Manzoli Wm 398-0305 00
0-BUS 32-RES 1-NEW

DIVISION AVE

(PO Chatham 07928)

CHATHAM

From State Hwy 24 sw to Kings Rd, 2 nw of Lafayette Ave

21 Kilduff Edw 635-5937 00
25 Coviello Peter Sr 635-9253 00
27 Lieb G H 635-5398 00
0-BUS 3-RES 0-NEW

DIVISION AVE

(PO Millington 07946)

MILLINGTON

From Passaic Valley Rd nw to Oaks Rd, 2 sw of Northfield Rd

-- #Cumberland Farms Food Stores 647-9789 00
45 #Runyan A D Co fuel oil & burner svc 647-0018 00
50 #Esco Precision Inc +647-6300 82

DIVISION AVE Contd

MILLINGTON

50 #Grilner & Co Inc 647-5208 80
50 #Geoscience Svcs 647-2343 82
50 #Ideo Industries 647-2734 80
50 #McGahren Assocs 647-1758 82
50 #Mulab Inc 647-0525 81
50 #Sphinx Electro-Plating Corp +647-0050 82
50 #Texpar Trading Corporation 647-1960 81
50 #Tifa Ltd 647-4570 79
53 #Beldon H P Jwyr 647-4000 00
53 Occupant NA 78
53 Schmidt Carl 647-6814 81
84 #Natl Roofing Inc 647-4343 00
85 #City of Millington 647-9814 00
85 #Palumbo Gary Associates design consultants 647-5252 80
93 Pauth Fred 647-3951 77
98 Johnson J E 647-4406 78
115 Della Ventura F Jr +647-7472 82
115 Della Ventura F P 647-0239 79
126 Legato G 647-0104 78
127 Ziegelmeier W 647-4455 80
127 Cutillo F 647-5359 00
151 #Borton Business Forms Inc 647-5100 80
151 Occupant NA 00
156 Zacharias E 647-0983 00
167 O'Brien James P 647-6373 81
175 Wilson Geo W 647-1122 00
198 Fitzgerald James E □647-7055 82
214 Blanck Michael W 647-6204 81
223 Montagna S 647-3713 78
234 Cavadini A J 647-3283 00
239 McClurken B S +647-1022 82
250 Occupant NA 00
16-BUS 19-RES 4-NEW

DIVISION LN

(PO RR 4 Andover 07821)

CRANBERRY LAKE

-- Boyd M E 347-3138 77
-- Occupant NA 00
-- Frank L 347-1817 00
-- Lake William 347-5187 80
11 Lloyd James A □347-7947 82
15 Hock George Jr 347-6947 81
21 Mansione Jos A 347-4906 81
23 Healy T E □347-6138 82
0-BUS 8-RES 0-NEW

DIVISION ST

(PO Boonton 07005)

BOONTON

From Main St ne bey Wootton St, 1 se of Mechanic St

MAIN ST

127 Mansur S Sultan 335-9073 00
131 Gallello N 299-1738 81
131 #Sultan Fashion Industries & Threading Co 334-8190 00
132 #Biffet Shops Inc 263-0270 78
132 Franklin Barry 334-8777 78
134 #Stay-Neat Closet Interiors 263-0270 78
136 Meredith J 335-2037 77
136A North L 335-5288 82
136B Byer Charles 299-0714 81
136D Occupant NA 79
138 Petty Kevin +263-2054 82
140 Lisovsky Walter 334-9192 78
208 Occupant NA 77
208 Shah Mata +334-0480 82

BIRCH ST

210 Occupant NA 00
210 Occupant NA 00
212 Stevens Albert L 335-1710 00
219 #Buick By Scerbo 334-2000 00
219 #Scerbo Bros Inc 334-2000 00
219 #Scerbo Buick 334-2000 77
219 #Thomas Auto Lease 334-2000 80
220 Olsonka J F 334-3145 00
224 Khan M S 263-8134 81
226 Occupant NA 78
230 #J & E Machine 334-9868 78
230 #Municipal Codes 334-0787 77
234 #Dunham-Coach 299-1900 82
301 #Pyro-chem Inc 335-9750 84

CEDAR ST

306 Doebler Gerald 334-4837 00
306 Iqbal Mohammad 263-2146 81
314 Spender John 334-4418 81
316 Muriano A 334-3157 00
316 Muriano S 334-4719 00
325 #Colonial Craftsmen 335-5500 79
325 #Doll House Factory 335-5501 81
325 #Model Homes 335-5501 79
325 #Plasta Medic Inc 335-4356 81
326 Creature William □334-9012 82
328 Occupant NA 00
330 Occupant NA 00
330 Gula M J 335-2132 00
416 #PVO Ind Inc 334-2902 81
485 #K & K Automotive Wholesalers 263-0626 80
487 #Environmental Chemicals Inc 335-2828 80
487 #Wootton Lauctar 334-0091 80
499 #Charlton Harry Co oil & kerosene 334-1024 00
499 Charlton John A 334-0130 00
501 #Joyce Holding Co 334-2020 79
501 #Joyce Molding Corp 334-2020 79
501 #Troy Hills Audio Visual 263-1885 81
501 #Troy Mchry Corp 334-2020 78
24-BUS 27-RES 2-NEW

BUSINESS LISTING

Target Street	Cross Street	Source
■	-	City's City Directory

DIVISION AVE 1979

DIVISION AVE
(PO Millington 07946)
MILLINGTON

From Passaic Valley Rd nw to
Oaks Rd, 2 sw of Northfield Rd

--	#Cumberland Farms Food Stores	647-9789
45	#Runyan A D Co fuel Oil & burner svc	647-0018
50	#Blue Spruce Co	□647-4570
50	#Garden State Air Freight	+647-5400
50	#Tifa Ltd	□647-4570
53	#Beldon H P lwyr	647-4000
53	Christensen A F	NA
84	#Natl Roofing Inc	647-4343
85	#Citgo of Millington	647-9814
85	#Citgo Of Millington	647-6771
85	#Millington Svc Ctr	647-6771
85	#Millington Service Center Inc	647-5945
86	#All-Weather Crete	647-0100
86	#Insulating Roof Systems	647-0100
86	#Polylite Roof Decks Inc	647-0100
93	Dauth Fred	647-3951
98	Johnson J E	647-4406
103	Madsen Scott	+647-6523
103	Pepler D E	+647-6523
115	Della Ventura F P	+647-0239
126	Legato G	647-0104
127	Ziegelmeier W	647-4455
137	Cutillo F	647-5359
151	#Borton Business Forms Inc	647-5100
151	Borton Lee J	NA
154	Zacharias E	647-0983
167	Haine W A	+647-3096
175	Wilson Geo W	647-1122
198	#Neale-May D	647-3238
214	Adamson K W	□647-6643
223	Montagna R	647-5713
234	Cavadini A J	647-3283
239	McClurken James K	□647-1022
250	Kondracki G	NA

Target Street	Cross Street	Source
	-	City's City Directory

DIVISION AVE 1975

27 Lieb G H 635-5938

DIVISION AVE
(PO Millington 07946)
MILLINGTON

From Passaic Valley Rd nw to Oaks Rd, 2 sw of Northfield Rd

--	Gold Bond Bldg Prdcts	*647-0500
--	Natl Gypsum Co Inc Millington Plant	647-0500
45	Runyon A D Co fuel oil & burner service	647-0018
53	Beldon & Eberhardt lawyers	647-4000
53	Beldon H P lwyr	647-4000
53	Christensen U F	NA
53	Eberhardt U R lwyr	647-4000
84	National Roofing Inc	647-4343
85	Citgo M & R	647-9814
85	Millington Svc Cntr Incorporated	*647-5945
85	Millington Svc Cntr Incorporated	*647-9814
86	All-Weather Crete Inc	*647-0100
86	Barrett Co The	*647-2211
86	Insulating Roof Sys	*647-0100
86	Polylite Roof Decks Incorporated	*647-0100
93	Petrock Jos F	647-0679
98	Merritt H H	647-0494
103	Palmer J L	647-2122
126	Huebner R A	647-5991
127	Ziegelmeier W	647-4455
137	Cutillo F	647-5359
151	Borton Business Forms Incorporated	647-5100
151	Borton Lee J	NA
154	Zacharias E	647-0983
167	Leschak A	647-0714
175	Wilson Geo W	647-1122
214	Vega W L	647-2350
223	Kovacs A	647-5713
234	Cavadini A J	647-3283
239	Wissolik R S	647-1743
250	Kondracki G	NA

Target Street	Cross Street	Source
	-	City's City Directory

DIVISION AVE 1972

DIVISION AVE
(PO Millington 07946)
MILLINGTON

From Passaic Valley Rd nw to Oaks Rd, 2 sw of Northfield Rd

--	Natl Gypsum Co Inc Millington plant	647-0500
45	Runyon A D Co fuel oil & burner svc	647-0018
53	Beldon H P lwyr	647-4000
53	Eberhardt U Richd lwyr	647-4000
53	Krebs W C	647-1078
84	Natl Roofing Co	647-4343
85	M & R Citgo	647-9814
93	Conine Walter J	647-1702
98	Merritt H H	647-0494
103	Palmer J L	647-2122
126	Huebner R A	647-5991
127	Ziegelmeier W	NA
137	Cutillo F	647-5359
151	Borton Bus Forms Inc	647-5100
151	Borton Lee J	NA
154	Zachar as E	647-0983
167	Leschak A	647-0714
175	Wilson Geo W	647-1122
198	Goss H B	647-0304
214	Vega W L	647-2350
223	Kovacs A	647-5713
234	Cavadini A J	647-3283
239	Muth C B	647-2764
250	Kondracki G	NA

DIVISION LN
(PO Andover 07821)
CRANBERRY LAKE

--	Boyd J	347-3138
--	Burke Rosanna M Mrs	347-3573
--	Kowalick Jos A	NA
--	Parodi Louis	347-3692
--	Retunno V	NA

DIVISION LN
(PO Hopatcong 07843)
HOPATCONG

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 5

NJDEP OPRA, County and Local Government Records

The New Jersey Department of Environmental Protection (NJDEP), acknowledges the receipt of your Open Public Records Act (OPRA) record request. The NJDEP will respond to your request within seven (7) business days.

If you have any questions, please contact the Office of Record Access at (609) 341-3121, or e-mail our office at: records.custodian@dep.nj.gov. The assigned OPRA Record Request Tracking #, identified in the Subject Line of this email, will facilitate future communications with our office.

Thank you,

NJDEP - Office of Record Access

OPRA Request Tracking Number: 244848

Date Received:	02/19/2019
Date Submitted:	02/19/2019
Access Method:	Send Electronic copies

Requesting Party Information

Name:	Nicholas DiVincent
Affiliations:	EWMA
Mailing Address:	100 Misty Lane Parsippany, NJ 070542741
Phone:	(973) 560-1400
Email:	Nicholas.DiVincent@ewma.com

Request Information

Facility Name:	
Block\Lot:	12301 1
Address:	50 Division Avenue Long Hill Twp - Morris
Owner:	
Operator:	
Permit Type:	
License Type:	
Related IDs:	
Individual:	
Individual Type:	

Request Details:

We are conducting a environmental assessment of property address located at 50 Division Avenue, Long Hill Township (Millington) Block 12301 Lot 1. As part of this assessment, we are requesting that your office perform a records search for seek all identifiable remedial, permitting and enforcement violations on the subject property.

Exams and Licensing

Section A: Invoice Information

License Number (Program Interest ID):	95394A
License Type:	PESTICIDE APPLICATOR BUSINESS
License Expiration Date:	10/31/2011
Assessment Type:	Fee(Renewal)
Invoice Number:	101151550
Invoice Amount:	$150
Company/Person Name:	LAWN DOCTOR OF BERNARDSVILLE

Section B: Eligibility Questionnaire

*Is the responsible certified pesticide applicator the same as the one listed on the paper invoice?	Yes
*Does this business have the required general liability coverage required, including coverage for completed operations, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes
*Does this business have the required chemical liability coverage, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes

Section C: Change Information - Update Mailing Address and Phone Number

Address (Line 1):	PO BOX 718
Address (Line 2):	
City:	Far Hills
State:	NJ
ZIP Code:	07931
Contact Number(s):	9086260303

Submittal Date: 09/27/2010

Exams and Licensing

Section A: Invoice Information

License Number (Program Interest ID):	95394A
License Type:	PESTICIDE APPLICATOR BUSINESS
License Expiration Date:	10/31/2012
Assessment Type:	Fee(Renewal)
Invoice Number:	111581320
Invoice Amount:	$150
Company/Person Name:	LAWN DOCTOR OF BERNARDSVILLE

Section B: Eligibility Questionnaire

*Is the responsible certified pesticide applicator the same as the one listed on the paper invoice?	Yes
*Does this business have the required general liability coverage required, including coverage for completed operations, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes
*Does this business have the required chemical liability coverage, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes

Section C: Change Information - Update Mailing Address and Phone Number

Address (Line 1):	PO BOX 718
Address (Line 2):	
City:	Far Hills
State:	NJ
ZIP Code:	07931
Contact Number(s):	9086260303

Submittal Date: 09/28/2011

Exams and Licensing

Section A: Invoice Information

License Number (Program Interest ID):	95394A
License Type:	PESTICIDE APPLICATOR BUSINESS
License Expiration Date:	10/31/2013
Assessment Type:	Fee(Renewal)
Invoice Number:	121411600
Invoice Amount:	$150
Company/Person Name:	LAWN DOCTOR OF BERNARDSVILLE

Section B: Eligibility Questionnaire

*Is the responsible certified pesticide applicator the same as the one listed on the paper invoice?	Yes
*Does this business have the required general liability coverage required, including coverage for completed operations, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes
*Does this business have the required chemical liability coverage, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes

Section C: Change Information - Update Mailing Address and Phone Number

Address (Line 1):	PO BOX 718
Address (Line 2):	
City:	Far Hills
State:	NJ
ZIP Code:	07931
Contact Number(s):	9086260303

Submittal Date: 09/26/2012

Exams and Licensing

Section A: Invoice Information

License Number (Program Interest ID):	95394A
License Type:	PESTICIDE APPLICATOR BUSINESS
License Expiration Date:	10/31/2014
Assessment Type:	Fee(Renewal)
Invoice Number:	131196930
Invoice Amount:	$150
Company/Person Name:	LAWN DOCTOR OF BERNARDSVILLE

Section B: Eligibility Questionnaire

*Is the responsible certified pesticide applicator the same as the one listed on the paper invoice?	Yes
*Does this business have the required general liability coverage required, including coverage for completed operations, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes
*Does this business have the required chemical liability coverage, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes

Section C: Change Information - Update Mailing Address and Phone Number

Address (Line 1):	PO BOX 718
Address (Line 2):	
City:	Far Hills
State:	NJ
ZIP Code:	07931
Contact Number(s):	9086260303

Submittal Date: 10/05/2013

Exams and Licensing

Section A: Invoice Information

License Number (Program Interest ID):	95394A
License Type:	PESTICIDE APPLICATOR BUSINESS
License Expiration Date:	10/31/2015
Assessment Type:	Fee(Renewal)
Invoice Number:	141502620
Invoice Amount:	$150
Company/Person Name:	LAWN DOCTOR OF BERNARDSVILLE

Section B: Eligibility Questionnaire

*Is the responsible certified pesticide applicator the same as the one listed on the paper invoice?	Yes
*Does this business have the required general liability coverage required, including coverage for completed operations, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes
*Does this business have the required chemical liability coverage, as specified on the Insurance Coverage Verification Form included with the paper invoice?	Yes

Section C: Change Information - Update Mailing Address and Phone Number

Address (Line 1):	PO BOX 718
Address (Line 2):	
City:	Far Hills
State:	NJ
ZIP Code:	07931
Contact Number(s):	9086260303

Submittal Date: 10/06/2014

Exams and Licensing

Section A: Invoice Information

License Number (Program Interest ID):	95394A
License Type:	PESTICIDE APPLICATOR BUSINESS
License Expiration Date:	10/31/2018
Assessment Type:	Fee(Renewal)
Invoice Number:	171266730
Invoice Amount:	$150
Company/Person Name:	LAWN DOCTOR OF BERNARDSVILLE

Section B: Eligibility Questionnaire

*Is the responsible commercial certified pesticide applicator the same as the one listed on your current record?	Yes
*Does this business have the required **general** liability insurance coverage, which includes coverage for completed operations, as specified in the Pesticide Control Regulations in Subchapter 7, section 4(c)?	Yes
*Does this business have the required **chemical** liability insurance coverage as specified in the Pesticide Control Regulations in Subchapter 7, section 4(c); or an NJ DEP waiver for this requirement?	Yes

Section C: Change Information - Update Mailing Address and Phone Number

Address (Line 1):	PO BOX 718
Address (Line 2):	
City:	Far Hills
State:	NJ
ZIP Code:	07931
Contact Number(s):	9086260303

Submittal Date: 09/14/2017

Exams and Licensing

Section A: Invoice Information

License Number (Program Interest ID):	95394A
License Type:	PESTICIDE APPLICATOR BUSINESS
License Expiration Date:	10/31/2019
Assessment Type:	Fee(Renewal)
Invoice Number:	181400990
Invoice Amount:	$150
Company/Person Name:	LAWN DOCTOR OF BERNARDSVILLE

Section B: Eligibility Questionnaire

*Is the responsible commercial certified pesticide applicator the same as the one listed on your current record?	Yes
*Does this business have the required **general** liability insurance coverage, which includes coverage for completed operations, as specified in the Pesticide Control Regulations in Subchapter 7, section 4(c)?	Yes
*Does this business have the required **chemical** liability insurance coverage as specified in the Pesticide Control Regulations in Subchapter 7, section 4(c); or an NJ DEP waiver for this requirement?	Yes

Section C: Change Information - Update Mailing Address and Phone Number

Address (Line 1):	PO BOX 718
Address (Line 2):	
City:	Far Hills
State:	NJ
ZIP Code:	07931
Email Address:	LDOFBVBR@YAHOO.COM
Contact Number(s):	9086260303

Submittal Date: 09/06/2018

Response

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF SOLID WASTE MANAGEMENT

INSPECTION REPORT
CLOSED LANDFILL

ARR: N/A

DATE OF INSPECTION 9/1/98 DEP: N/A ID#:

NAME OF SOLID WASTE DISPOSAL FACILITY Millington Asbestos

STREET LOCATION Stone House Rd & Division Ave. Bl. 119, Lot 1

MUNICIPALITY Passaic Township (Millington) Morris County

NAME OF OPERATOR USEPA

ADDRESS OF OPERATOR

FULL NAME OF INSPECTOR Thomas C. Hansen

A. DATE OF CLOSURE CLOSURE PLAN REQUIRED: YES NO
CLOSURE PLAN SUBMITTED: YES NO N/A (CLOSURE PRIOR TO 1982)
CLOSURE PLAN STATUS: APP: PENDING REJECTED

B. LANDFILL IN COMPLIANCE WITH APPROVED CLOSURE: YES NO N/A

C. 1. LANDFILL BEING USED FOR ANY PURPOSE: YES NO
2. COVER MATERIAL BEING MAINTAINED: YES NO
3. SITE SECURED FROM ILLEGAL DUMPING: YES NO
4. HAS ANY DISRUPTION OF THE COVER OR EXCAVATION OF WASTE OCCURRED AT THE SITE WITHOUT DSWM APPROVAL: YES NO
5. HAVE ANY BUILDINGS OR OTHER STRUCTURES BEEN CONSTRUCTED ON THE LANDFILL WITHOUT DSWM APPROVAL: YES NO
6. ARE MONITORING WELLS, GAS VENTS, OR OTHER ENVIRONMENTAL IMPROVEMENTS AT THE LANDFILL MAINTAINED: YES NO
7. ARE ANY ODORS EMANATING FROM THE LANDFILL DETECTED OFF-SITE IN ANY AREA OF HUMAN USE OR OCCUPANCY: YES NO
8. IS ANY LEACHATE DETECTED AT THE LANDFILL DISCHARGING INTO SURFACE WATERS, OR POSING A HEALTH THREAT THROUGH CONTACT EXPOSURE BY INDIVIDUALS UTILIZING THE SITE: YES NO

Thomas C. Hansen

INSPECTOR (SIGNATURE)

THE DIVISION OF SOLID WASTE MANAGEMENT REPRESENTATIVE HAS PROVIDED ME WITH A COPY OF THIS REPORT.

SIGNATURE DATE

This is an EPA Superfund site.
See attached.

New Jersey Department of Environmental Protection
Bureau of Solid Waste Compliance and Enforcement

INSPECTION REPORT

CLOSED LANDFILL

Date of Inspection 11/15/99 Arrival 1:55 Depart 2:15 Facility ID# EPA# NJD980654149

Name of solid waste disposal facility Millington Asbestos

Street Location Foot of River Rd & Stone House Road & Division St.

Municipality Long Hill Township BL 119 Lot 1

Name of Operator see attached

Address of Operator

Full Name of Inspector

A. Date of Closure ___/___/___ Closure Plan Required: Yes___ No___

Closure Plan Submitted Yes___ No___ N/A___ (Closure prior to 1982)
Closure Plan Status Approved___ Rejected___ Pending___

B. Landfill is in compliance with approved closure: Yes___ No___ N/A___

C. 1. Landfill being used for any purpose: Yes___ No___
2. Cover material being maintained: Yes___ No___
3. Site secured from illegal dumping: Yes___ No___
4. Has any disruption of the cover or excavation of waste occurred at the site without DSWM approval: Yes___ No___
5. Have any buildings or other structures been constructed on the landfill without DSWM approval: Yes___ No___
6. Are monitoring wells, gas vents, or other environmental improvements at the landfill maintained: Yes___ No___
7. Are any odors emanating from the landfill detected off-site in any area of human use or occupancy: Yes___ No___
8. Is any leachate detected at the landfill discharging into surface waters, or posing a health threat through contact exposure by individuals utilizing the site: Yes___ No___
9. Has the grading of the site been maintained to prevent the ponding of water: Yes___ No___

Inspector Signature Thomas C Hansen

The Department representative has provided me with a copy of this report.

Signature Date

This is a Superfund site.

Text Only Version

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Contacting Region 2

In the News

Library

Data & Applications

Freedom of Information Act

Frequently Asked Questions

Calendar

Initiatives & Special Programs

ASBESTOS DUMP

- NEW JERSEY
- EPA ID# NJD980654149
- EPA REGION 2
- CONGRESSIONAL DIST. 11
- Morris County
- Millington

Site Description

The Asbestos Dump site consists of the 11acre Millington site and three separate satellite sites. The Millington site lies in a residential and commercial area. Beginning in 1927, a succession of owners operated an asbestos products manufacturing plant at the Millington site. Asbestos was disposed of at the Millington site, comprising a large mound approximately 1.5 acres in size. Erosion and weathering of the mound have exposed areas of asbestos along the Passaic River bank. Approximately 650 people live within a mile of the Millington site, and the site itself currently employs approximately 200 people. One satellite site, known as the Dietzman Tract or the Great Swamp area, is located within the Great Swamp National Wildlife Refuge, about 2 miles southeast of New Vernon Road. This site was used as a refuse and asbestos disposal area for approximately 40 years and is bordered by Great Brook and a woodland habitat. The New Vernon Road and White Bridge Road satellite sites are residential properties. The New Vernon Road site consists of approximately 30 acres. Broken asbestos tiles and siding, as well as loose asbestos fibers, were landfilled in this former corn and dairy farm during the late 1960's. The White Bridge Road site, covering 12 acres, is bounded by the Great Swamp National Wildlife Refuge and private residences. This property was a farm until 1969, when the current owner started landfilling asbestos waste from the Millington facility. The wastes were present on the site as subsurface fill or as part of an asbestos waste mound. Disposal continued until 1975. Afterward, the owner graded and seeded the dumping areas and converted the property into a horse farm.

Site Responsibility:

This site is being addressed through Federal actions.

NPL LISTING HISTORY

Proposed Date: 12/01/82
Final Date: 09/01/83

Threats and Contaminants

Asbestos is the contaminant of concern at the site. Different levels and types of contaminants have been detected at the different subsites, however, asbestos has been detected at all four subsites. There is a potential health risk to the owners, nearby residents and tourists due to the airborne release of asbestos fibers.

Cleanup Approach

The four subsites comprising the Asbestos Dump site, are being addressed in three operable units: The Millington site is the first operable unit, the New Vernon Road and White Bridge Road sites are the second operable unit and the Dietzman Tract is the third operable unit.

Response Action Status

Immediate Actions: In 1983, the National Gypsum Company, a potentially responsible party for the site contamination, restabilized the Passaic River bank by correcting erosion that took place during heavy spring rains at the Millington site. In 1990, federally funded, temporary actions were conducted to immobilize asbestos contamination at the New Vernon Road and White Bridge Road sites. These actions included: erecting signs and fences, sampling of air and soil, capping two driveways, covering visible asbestos containing materials with geotextile fabric, removing a dilapidated shed and removing asbestos containing materials from the ground surface.

Millington Cleanup: A Record of Decision was signed on September 30, 1988. The remedy selected by EPA for cleaning up the Millington site includes: installing a soil cover on areas of exposed asbestos; building a chainlink security fence around all areas of known or suspected asbestos disposal; protecting and stabilizing the slope along the base of the asbestos mound embankment; building channels to divert surface runoff; conducting operations, maintenance, and longterm monitoring; recommending restrictions on development of the asbestos fill areas and use of groundwater on site; and performing technical studies that will permanently destroy or immobilize asbestos fibers. In 1990, the potentially responsible parties submitted a work plan for technical designs and specifications for the final cleanup at the site. However, as a result of a bankruptcy settlement with the PRP, EPA is currently conducting remedial design activities. The final remedial design is being finalized. Construction of this remedy is expected to be initiated in Summer 1998.

New Vernon Road and White Bridge Road Cleanup: Removal activities were

conducted at each property in response to a Health Advisory issued by the Agency for Toxic Substances and Disease Registry. A Record of Decision was signed on September 27, 1991. The selected remedy is in-situ solidification/stabilization treatment. A treatability study was initiated in the fall of 1991 and was completed in the winter of 1993. Remedial design activities were initiated in January 1992 and completed in May 1993. A contract for construction of the remedy was competitively bid and a construction subcontractor was selected on April 1, 1994. A public meeting was held on June 30, 1994 to discuss site activities. Construction activities began on July 14, 1994. Phase I, consolidation and solidification of asbestos containing materials was completed as of December 1994. However, Phase II, which consists of site restoration and wetland mitigation, was delayed due to the use of unacceptable fill material to backfill the residential properties. This issue was resolved at the White Bridge Road site and remediation of the site was completed in November 1995. Additional work to complete remedial activities at New Vernon Road is being planned.

Dietzman Tract Cleanup: The Dietzman Tract is located in the Great Swamp Natural Wildlife Refuge, which is owned by the U.S. Department of the Interior. A remedial investigation was initiated by the National Gypsum Company in 1986. Due to the bankruptcy of National Gypsum Company, the site is currently being addressed by the U.S. Department of Interior (DOI). DOI completed an additional Remedial Investigation and Feasibility Study for this operable unit (OU3) in 1997. As part of their field work, DOI conducted removal actions on small areas where asbestos contaminated materials may have been a potential exposure threat to refuge visitors.

Site Facts: EPA and the National Gypsum Company signed an Administrative Order on Consent in 1985, under which the National Gypsum Company agreed to perform site studies. In 1989, EPA issued a Unilateral Order to the National Gypsum Company for cleanup activities at the Millington site. In October 1990, the National Gypsum Company filed for bankruptcy and the government settled its claims against the Company in the winter of 1993. EPA completed remedial design activities for the cleanup at the New Vernon Road and White Bridge Road sites. Construction activities began in the summer of 1994. EPA is currently concluding remedial design activities at the Millington site and expects to initiate construction of the remedy in the summer of 1998. The Dietzman Tract is being addressed through a joint effort between the Department of the Interior and EPA.

Cleanup Progress

(Threat Mitigated by Physical Cleanup Work)

Millington Site Cleanup: The remedy selected for the Millington site includes the installation of a soil cover and slope stabilization. EPA is currently in the process of finalizing the final remedial design documents. EPA anticipates remedial construction to begin in Summer 1998.

White Bridge Road and New Vernon Road Cleanup: In November 1997,

EPA approved the Final Remedial Action (RA) Report for the White Bridge Road site. The remedial action at this site included the consolidation of asbestos containing material (ACM) into one area of the site and the solidification/stabilization of the top two and a half feet of the ACM. At the conclusion of the solidification/stabilization process, a soil cover was placed on the disposal area. Approximately 27,200 tons of ACM was treated in this manner. The RA report documents that all remediation is complete at this portion of the site. Additional work is being planned to complete remedial activities at the New Vernon Road site.

Dietzman Tract Cleanup: In October 1997, a removal action at Site A was completed by DOI removing approximately 200 drum carcasses and 60 drums with suspected hazardous waste. All drums were disposed at an appropriate off-site disposal facility.

A Proposed Remedial Action Plan was prepared in Fall 1997. A Public Meeting was held on December 17, 1997 to present the Preferred Remedy which incorporates the drum removal, consolidation and containment ("biotic cap"). The public comment period has been extended until February 16, 1998. A Draft Record of Decision is expected in Spring 1998.

Site Repository

Long Hill Township Free Library, 91 Central Avenue, Stirling, NJ 07980

 Return to Superfund Home Page  Return to Previous Page

EPA Region 2

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Last revised: April, 1998
URL: http://www.epa.gov/region02/superfnd/site_sum/0200769c.htm

National Priority Site Fact Sheet

ASBESTOS DUMP

- NEW JERSEY
- EPA ID# NJD980654149
- EPA REGION 2
- CONGRESSIONAL DIST. 11
- Morris County
- Millington

Site Description

The Asbestos Dump site consists of the 11acre Millington site and three separate satellite sites. The Millington site lies in a residential and commercial area. Beginning in 1927, a succession of owners operated an asbestos products manufacturing plant at the Millington site. Asbestos was disposed of at the Millington site, comprising a large mound approximately 1.5 acres in size. Erosion and weathering of the mound have exposed areas of asbestos along the Passaic River bank. Approximately 650 people live within a mile of the Millington site, and the site itself currently employs approximately 200 people. One satellite site, known as the Dietzman Tract or the Great Swamp area, is located within the Great Swamp National Wildlife Refuge, about 2 miles southeast of New Vernon Road. This site was used as a refuse and asbestos disposal area for approximately 40 years and is bordered by Great Brook and a woodland habitat. The New Vernon Road and White Bridge Road satellite sites are residential properties. The New Vernon Road site occupies approximately 30 acres. Broken asbestos tiles and siding, as well as loose asbestos fibers, were landfilled on this former corn and dairy farm during the late 1960's. The White Bridge Road site, covering 12 acres, is bounded by the Great Swamp National Wildlife Refuge and private residences. This property was a farm until 1969, when the current owner started landfilling asbestos waste from the Millington facility. The wastes were present on the site as subsurface fill or as part of an asbestos waste mound. Disposal continued until 1975.

Site Responsibility:

This site is being addressed through Federal actions.

NPL LISTING HISTORY

Proposed Date: 12/01/82
Final Date: 09/01/83

Threats and Contaminants

Asbestos is the contaminant of concern at the site. Different levels and types of contaminants have been detected at the different subsites, however, asbestos has been detected at all four subsites. There is a potential health risk to the owners, nearby residents and tourists due to the airborne release of asbestos fibers.

Cleanup Approach

The four subsites comprising the Asbestos Dump site are being addressed in three operable units: the Millington site is the first operable unit, the New Vernon Road and White Bridge Road sites are the second operable unit, and the Dietzman Tract is the third operable unit.

Response Action Status

Immediate Actions: In 1983, the National Gypsum Company, a potentially responsible party for the site contamination, restabilized the Passaic River bank by correcting erosion that took place during heavy spring rains at the Millington site. In 1990, federally funded, temporary actions were conducted to immobilize asbestos contamination at the New Vernon Road and White Bridge Road sites. These actions included: erecting signs and fences, sampling of air and soil, capping two driveways, covering visible asbestos containing materials with geotextile fabric, removing a dilapidated shed, and removing asbestos containing materials from the ground surface.

Millington Cleanup: A Record of Decision was signed on September 30, 1988. The remedy selected by EPA for cleaning up the Millington site includes: installing a soil cover on areas of exposed asbestos; building a chainlink security fence around all areas of known or suspected asbestos disposal; protecting and stabilizing the slope along the base of the asbestos mound embankment; building channels to divert surface runoff; conducting operations, maintenance, and longterm monitoring; and recommending restrictions on development of the asbestos fill areas and use of groundwater on site. In 1990, the potentially responsible parties submitted a work plan for technical designs and specifications for the final cleanup at the site. However, as a result of a bankruptcy settlement with the PRP, EPA undertook the remedial design activities. In July 1998, the remedial design was finalized. Construction of the remedy for this portion of the site is expected to be initiated in the spring of 1999.

New Vernon Road and White Bridge Road Cleanup: Removal activities were conducted at each property in response to a Health Advisory issued by the Agency for Toxic Substances and Disease Registry. A Record of Decision was signed on September 27, 1991. The selected remedy involved in-situ solidification/stabilization treatment of asbestos containing materials. A treatability study was initiated in the fall of 1991 and completed in the winter of

1993. Remedial design activities were initiated in January 1992 and completed in May 1993. A contract for construction of the remedy was competitively bid and a construction subcontractor was selected on April 1, 1994. A public meeting was held on June 30, 1994 to discuss site activities. Construction activities began on July 14, 1994. Phase I, consolidation and solidification of asbestos containing materials, was completed as of December 1994. However, Phase II, which consists of site restoration and wetland mitigation, was delayed due to the use of unacceptable fill material to backfill the residential properties. This issue was resolved at the White Bridge Road site and remediation of this property was completed in November 1995. In June 1998, EPA acquired the New Vernon Road property. In July 1998, additional work to complete remedial activities at the New Vernon Road portion of the site was initiated. This work, which included the excavation and off-site disposal of the unacceptable fill and site restoration activities, was completed in January 1999.

Dietzman Tract Cleanup: The Dietzman Tract is located in the Great Swamp Natural Wildlife Refuge, which is owned by the U.S. Department of the Interior. A remedial investigation was initiated by the National Gypsum Company in 1986. Due to the bankruptcy of National Gypsum Company, the Dietzman property is being addressed by the U.S. Department of Interior (DOI). DOI completed an additional Remedial Investigation and Feasibility Study for this operable unit (OU3) in 1997. As part of its field work, DOI conducted removal actions on small areas where asbestos contaminated materials may have been a potential exposure threat to refuge visitors. EPA issued a ROD in September 1998, and by November 1998, cleanup activities were completed including consolidation of asbestos and the construction of a cap to contain asbestos.

Site Facts: EPA and the National Gypsum Company signed an Administrative Order on Consent in 1985, under which the National Gypsum Company agreed to perform site studies. In 1989, EPA issued a Unilateral Order to the National Gypsum Company for cleanup activities at the Millington site. In October 1990, the National Gypsum Company filed for bankruptcy and the government settled its claims against the Company in the winter of 1993. The Dietzman Tract is being addressed through a joint effort between the Department of the Interior and EPA.

Cleanup Progress

(Threat Mitigated by Physical Cleanup Work)

Millington Site Cleanup: The remedy selected for the Millington site includes the installation of a soil cover and slope stabilization. EPA completed the final remedial design in July 1998. EPA anticipates remedial construction to begin in the spring of 1999.

White Bridge Road and New Vernon Road Cleanup: In November 1997, EPA approved the Final Remedial Action (RA) Report for the White Bridge Road site. The remedial action at this site included the consolidation of asbestos containing material (ACM) into one area of the site and the solidification/stabilization of the top two and a half feet of the ACM. At the

conclusion of the solidification/stabilization process, a soil cover was placed on the disposal area. Approximately 27,200 tons of ACM were treated in this manner. The RA report documents that all remediation is complete at the White bridge Road portion of the site. In July 1998, additional work to complete remedial activities at the New Vernon Road property was initiated and all work was completed by January 1999.

Dietzman Tract Cleanup: In October 1997, a removal action at Site A was completed by DOI removing approximately 200 drum carcasses and 60 drums with suspected hazardous waste. All drums were disposed at an appropriate off-site disposal facility.

In June 1998, a removal action at Site B, Refuse Areas 1,3, 6 and the Unimproved Access Road, included the removal of asbestos contaminated material (ACM), lead contaminated soil and debris. The ACM was removed from the subject areas and consolidated at Site A, while lead impacted soil and debris were disposed of at an appropriate off-site facility.

In September 1998, a Record of Decision (ROD) was signed by EPA and DOI. The selected remedy incorporates the aforementioned removals, consolidation of ACM at Site A and containment (biotic cap). Construction activities began in October 1998 and were completed in November 1998. Aninspection of the construction should be scheduled, by DOI, with EPA and NJDEP in February 1999.

Site Repository

Long Hill Township Free Library, 91 Central Avenue, Stirling, NJ 07980

Freedom of Information Act (FOIA) Requests may be sent electronically to:

This page was created by Diann Cox-Tramel, Superfund Program
All electronic requests for information on FOIA (Freedom of Information Act) may be executed by: Region 2 Online FOIA Request Form

URL: http://www.epa.gov/region02/superfnd/site_sum/0200769c.htm
Revised: March 23, 1999

Return to Superfund Home Page Return to Previous Page

Region 2 Main Page | Search Region 2 | Comments | EPA Main Page

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THE REGION

N.J. getting $104M to clean 15 sites, including Wallington

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Today's NEWS

- Home Page
- Top Stories
- The Region
- Business
- The Wire
- Columnists
- Obituaries
- Education
- Campaign Central

Your Town News

SPORTS

LIFE

OPINION

Special REPORTS

Yellow Pages

Life with The Record

Friday, November 7, 1997

By DANIEL SFORZA
Staff Writer

New Jersey will receive $104 million of an anticipated $400 million in end-of-the-year funds intended to help clean up Superfund sites nationwide during the next year, federal officials announced Thursday.

The disproportionate allocation for New Jersey will fund new or current cleanups at 15 long-term hazardous waste sites, including the Industrial Latex Corp. in Wallington.

"The funding allocated for remedial actions in New Jersey represents 25 percent of all the Superfund money that was available in the last fiscal year for site cleanups nationwide," said Jeanne Fox, regional administrator for the Environmental Protection Agency.

Wallington will receive $15 million for site remediation, EPA spokesman Rich Cahill said.

Last week, Sen. Robert G. Torricelli, D-N.J., said the Industrial Latex site in Wallington would receive $10 million, but on Thursday one of his staff members said she had transposed that figure with an allocation for U.S. Radium in Orange.

All told, the Orange cleanup will receive $26 million: $10 million for the U.S. Radium property and $16 million for work on nearby residential properties.

Additionally, sites in Glen Ridge and Montclair will receive $12 million and $8 million, respectively. Asbestos Dump in Millington will receive $6 million. The Fried Industries sites in East Brunswick will get $4 million, and $1 million will go to Grand Street in

Hoboken.

The remaining $32 million will go for cleanups in Kingwood, Vineland, Howell, Marlboro, Evesham, and Minotola.

The money for the projects was secured from May through September and confirmed in October, Cahill said.

Wallington Council President Arlene Sigretto was happy to hear that her borough would be getting not $10 million but $15 million to begin the last phase of cleaning up Industrial Latex.

"Wow, that's great," she said. "It means we get that mess cleaned up and can get some tax dollars to help the situation in town. But the cleanup is primary."

The plant sat on 10 acres on Mount Pleasant Avenue, directly across from a school. Approximately 10,000 people live within half a mile, the EPA has estimated.

The factory produced latex adhesives and synthetic rubber compounds from 1951 to 1983. It was added to the Superfund program in 1986 after efforts to get the owners to clean up the property failed.

The chief contaminants on the site are PCBs, or polychlorinated biphenyls, a toxic class of organic compounds that can cause cancer.

After the plant closed, the EPA conducted an emergency cleanup that removed leaking underground storage tanks and chemical drums that were not covered.

The very worst of the volatile organic compounds and PCBs, those found in the drums, have been removed, and the buildings have been demolished.

But the final phase of the cleanup, cleansing contaminated soil, still needs to be completed. Work was halted at the site in 1996 as Superfund money dried up.

In 1995, it was estimated that $17 million would be needed to treat 35,000 cubic yards of contaminated soil by heating it to liquefy and extract the toxic substances. Back then, the goal was to clean the

contaminated soil to acceptable residential levels by some time this year.

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COPY ASSIGNMENT & PRINTING AGREEMENT

OPRA Request #: **244848**

Date Submitted: 02/19/2019
Date Received: 02/19/2019

Requestor Name: Nicholas DiVincent
Affiliation: EWMA
Mailing Address: 100 Misty Lane
Parsippany, NJ 070542741

Phone: (973) 560-1400
Fax: (973) 560-0400
E-Mail: Nicholas.DiVincent@ewma.com

Facility Name: <NONE FOUND>
Site Address: 50 Division Avenue

Municipality: Long Hill Twp
County: Morris

Request Details: We are conducting a environmental assessment of property address located at 50 Division Avenue, Long Hill Township (Millington) Block 12301 Lot 1. As part of this assessment, we are requesting that your office perform a records search for seek all identifiable remedial, permitting and enforcement violations on the subject property.

Section A – OPA Use

DATE RECEIVED	DATE NEEDED	DATE COMPLETED	INVOICE #	EQUIPMENT USED	OPERATOR(S	DEP or REQUEST No.(s)

QUANTITY	x	ORIGINALS	+	MICROFILM	=	TOTAL COPIES	MAPS	OTHER (CDs, DVDs)

Section B – Requester Printing Agreement & Authorization

CLIENT OR CONTACT PERSON: Nicholas DiVincent
PHONE #(973) 560-1400 EXT 166
FAX #(973) 560-0400
E-MAIL ADDRESS: Nicholas.divincent@ewma.com
☒ COPY ALL ☐ AS TAGGED

SHIPPING METHOD

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☐ NEXT DAY AIR ☐ NEXT DAY AIR SAVER
☐ 2nd DAY AIR A.M. ☐ 2nd DAY AIR
☒ FEDERAL EXPRESS
☐ PRIORITY OVERNITE ☐ 2nd DAY
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COMPANY: EWMA	COMPANY: EWMA
STREET (MUST CONTAIN ACTUAL STREET ADDRESS, NO P.O. BOXES): 100 Misty Lane	STREET: 100 Misty Lane, P.O. Box 5430
CITY, STATE, ZIP CODE (INCLUDE EXTENDED ZIP): Parsippany, NJ 07054	CITY, STATE, ZIP CODE (INCLUDE EXTENDED ZIP): Parsippany, NJ 07054

I hereby agree to pay for all copies I have requested of the State of New Jersey, Department of Environmental Protection within the timeframes provided by the State. I am aware of the potential costs for copying as identified to the right. I understand that I will receive a faxed or emailed invoice under a separate cover. Payment must be received prior to my requested records being shipped or permitted to be picked-up.

Nicholas DiVincent
Name – Printed

Nicholas DiVincent
Authorization Signature

3/6/19
Date

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Division of Environmental Safety and Health
Office of Pollution Prevention and Right to Know
P.O. Box 405
Trenton, NJ 08625-0405

VINCENT CHIARAMONTE
50 DIVISION AVE
Millington, NJ 07946

NOTICE OF VIOLATION

EA ID #: BEA030001 - 00000000356

You are hereby NOTIFIED that during a compliance evaluation of the above organization on 11/06/2003, the following violation of the New Jersey Worker and Community Right to Know Act (N.J.S.A. 34:5A-1 et seq.), and the New Jersey Worker and Community Right to Know Regulations (N.J.A.C. 7:1G et seq.), was determined. This violation shall be recorded as part of the permanent enforcement history of VINCENT CHIARAMONTE.

Requirement: Pursuant to N.J.A.C. 7:1G-3.1(a), an employer shall complete and submit to the Department a Community Right to Know Survey for each facility covered by the rules, indicating if environmental hazardous substances (EHSs) were present during the reporting period and listing the EHSs that met or exceeded the threshold quantities for reporting listed at N.J.A.C. 7:1G-3.1(b). Pursuant to N.J.A.C. 7:1G-5.1(a), an employer subject to reporting under the Worker and Community Right to Know Act, regardless of whether the employer also meets the Federal requirements for reporting under Section 312 of SARA, shall transmit a Community Right to Know Survey for each covered facility to the Department by March 1 of the year following the reporting year.
Description of Non-Compliance: The Department has determined that you failed to complete and submit to the Department by March 1, 2003 the Community Right to Know Survey for your facility for the 2002 reporting year

The Department will not assess a penalty against you for the violation above if corrected by the deadline below.

You must take the following corrective actions:

On or before December 19**,** 2003, complete and submit a Community Right to Know Survey for the 2002 reporting year listing all EHSs that met or exceeded the threshold during the reporting period to the New Jersey Department of Environmental Protection, Office of Pollution Prevention and Right to Know, P.O. Box 405, Trenton, NJ 08625-0405. The Office can be reached at (609) 292-6714.

Issuance of this Notice of Violation serves as notice to you that the Department has determined that a violation has occurred and does not preclude the State of New Jersey or any of its agencies from initiating administrative or judicial enforcement action, or from assessing penalties or from modifying this Notice of Violation, with respect to this or other violations. Violations of the above regulations are subject to penalties of up to $2,500.00 per day/offense.

Issued by: Michael DiGiore Date: November 10, 2003

Signature: Michael DiGiore Rescinded: This violation has been rescinded

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMUNITY RIGHT TO KNOW SURVEY

For State and Federal Community Right to Know Reporting

Disclaimer: Please be advised that Community Right to Know Reports may not have an accurate Company Name for the years 1992 and thereafter.

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

CURRENT FACILITY INFORMATION:

FACILITY MAILING ADDRESS
50 DIVISION AVE
MILLINGTON, NJ 07946-
ATTN: VINCENT CHIARAMONTE
NAICS CODE:

A FACILITY LOCATION
50 DIVISION AVE
LONG HILL TWP, NJ 07933
COUNTY / MUNICIPALITY CODE: 1430

C Facility Status: Inactive (per bureau)
Business Activity: COMMERCIAL PRINT SHOP, PRINTING NEWSLETTERS, FORMS

D Number of employees at facility 1

E Number of facilities in New Jersey 1

F Federal EIN *********

G R&D exemption approval number for this facility: _____

H Are you reporting pursuant only to Section 312 of the Federal Emergency Planning and Community Right to Know Act (EPCRA/SARA, Title III)? Yes ☐ No

I FACILITY EMERGENCY CONTACT
Name VINCENT CHIARAMONTE Title PROP
Facility Phone Number (908) 647-5814 Emergency Contact Phone Number (908) 647-5814

J CERTIFICATION OF OWNER/OPERATOR OR AUTHORIZED REPRESENTATIVE -- I certify under penalty of law that I have personally examined and am familiar whith the information submitted in this document and all attachments, and that based on my inguiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Current Certifier:
Name VINCENT CHIARAMONTE Title PROP
e-Mail Phone # (908) 647-5814 Fax # (908) 647-5814

K UNION REPRESENTATIVE
Union Name/Local Email
Representative Name Phone #

EPCRA SECTION 302 INFORMATION
TRI Facility ID: Latitude: Location is: Manned ☐ Unmanned
RMP Facility ID: Longitude: Maximum Number of Occupants:

Is this facility subject to Chemical Accident Prevention under Section 112R of CAA (40 CFR, Part 68, Risk Management Program)? Yes ☐ No

Is this facility subject to Emergency Planning under Section 302 of EPCRA (40 CFR Part 55)? Yes ☐ No

FACILITY EMERGENCY COORDINATOR (if applicable)
Name: Title:
eMail Address: 24-Hour Phone:

PARENT COMPANY INFORMATION (Optional)
Company Name: Dun & Bradstreet No.:
Company Address: Phone Number:
eMail Address:

COMMUNITY RIGHT TO KNOW SURVEY
1995 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 1995, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	___	___
2. above thresholds?	___	___

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

COMMUNITY RIGHT TO KNOW SURVEY
1996 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 1996, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	___	___
2. above thresholds?	___	___

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

COMMUNITY RIGHT TO KNOW SURVEY
1997 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 1997, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	■	
2. above thresholds?		■

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

COMMUNITY RIGHT TO KNOW SURVEY
1998 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 1998, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	✓	
2. above thresholds?		✓

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

COMMUNITY RIGHT TO KNOW SURVEY
1999 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 1999, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	✓	
2. above thresholds?		✓

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

COMMUNITY RIGHT TO KNOW SURVEY
2000 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 2000, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	✓	
2. above thresholds?		✓

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

COMMUNITY RIGHT TO KNOW SURVEY
2001 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 2001, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	___	___
2. above thresholds?	___	___

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

2001 SURVEY NOT RECEIVED

COMMUNITY RIGHT TO KNOW SURVEY
2002 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 2002, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	✓	
2. above thresholds?		✓

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

COMMUNITY RIGHT TO KNOW SURVEY
2004 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 2004, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	___	___
2. above thresholds?	___	___

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

2004 SURVEY NOT RECEIVED

COMMUNITY RIGHT TO KNOW SURVEY
2005 CHEMICAL INVENTORY REPORT

Facility ID: 00000000356

Current Facility Name: VINCENT CHIARAMONTE

in 2005, did this facility **Produce**, **Store** or **Use** NJ CRTK Environmental Hazardous Substances in a Pure or Mixture state:

	Yes	No
1. in any quantity?	___	___
2. above thresholds?	___	___

Note: This Section will be populated only if the facility is covered under the New Jersey Worker and Community Right to Know Act, N.J.S.A. 34:5A

2005 SURVEY NOT RECEIVED

State of New Jersey

Department of Environmental Protection

GOVERNMENT RECORDS REQUEST FORM

IMPORTANT NOTICE

Please read this entire form carefully as it contains important information concerning the response to your record request, accessing records, disputing denials, and your rights concerning government records. For further information, access WWW.NJ.GOV/DEP/OPRA.

Requestor Information

First Name:	NICHOLAS	MI		Last Name	DIVINCENT		
Company:	EWMA						
Mailing Address:	100 MISTY LANE						
City:	Parsippany	State:	NJ	Zip:	07054 2741	Email:	Nicholas.DiVincent@ewma.com
Business Telephone:	(973) 560-1400					Extension	166
Facsimile Telephone:	(973) 560-0400						

State Use Only

Tracking #	244848
Received Date	02/19/2019
Access Method	**Send Electronic copies**

All matters relating to the response and access of any records identified for this request should be directed to:

NJDEP – Office of Record Access
401 East State Street
PO Box 420 Mail Code 401-06Q
Trenton, New Jersey 08625-0420

Tele #: (609) 341-3121
Fax #: (609) 292-1177

Record Request Details:

We are conducting a environmental assessment of property address located at 50 Division Avenue, Long Hill Township (Millington) Block 12301 Lot 1. As part of this assessment, we are requesting that your office perform a records search for seek all identifiable remedial, permitting and enforcement violations on the subject property.

Disposition Notes

Based on this record request,responsive records have been identified and available for access. Requester should contact the Office of Record Access at 609-341-3121 to schedule a file review, copies, or to obtain further information.

Record Request Response

In Progress	–	Open	
Filled	–	Closed	X
Denied	–	Closed	
Partial	–	Closed	

Addendum Disposition Notes: Based on this request, responsive records have been located. Contact us at 609-341-3121 to access schedule /inspection. Please note that the request is very broad and does not define specific records and for that reason; the NJDEP is providing all remedial, permitting and enforcement records that were able to be identified based on your request from the various NJDEP Programs that have historically provided records in response to Environmental Phase I or Due Diligence (e.g. performing a Preliminary Assessment) requests. In addition, the NJDEP has hazardous waste manifest data available online at http://www.state.nj.us/dep/opra/ under ?Other Record Request Process?. Select "Hazardous Waste Manifest Searches" for period of interest and enter EPA ID#NJD980762199, NJN986627792, NJX000264721 & NJX000241737 and the year/date range in the corresponding fields. To obtain copies of the record, contact the Bureau of Hazardous Waste at (609) 984-2162. As of July 1, 2018, the NJDEP no longer receives manifest records. For records after July 1, 2018, access the EPA?s web site at: https://www.epa.gov/e-manifest .

02/27/2019

Custodian Signature **Date**

Access to Government Records Under the New Jersey Open Public Records Act (N.J.S.A. 47:1A-1 et seq.)

Information Regarding the Requested Records		
If your request is in reference to a single facility, please provide the name of the facility, and the name of the operator name of the facility:	Facility Name: Operator Name:	
Please provide the owner name the facility or parcel of land:	Owner Name:	
If your request is in reference to a specific parcel of land, please provide the street address, block, lot and property owner of the parcel of land: (Note: if the property in question is over multiple blocks and lots, please list all in the description field below)	Street Address 1: **50 Division Avenue** Street Address 2: Block: **12301** Lot: **1**	
If your request is in reference to a facility, site or parcel of land, please provide the Municipality and County where the facility, site or parcel of land is located:	County: **Morris** Municipality: **Long Hill Twp**	
If the request is in reference to a particular permit issued by NJDEP, please provide the type of permit and any identifying numbers such as permit, incident or case numbers. (i.e. Fishing, Hunting, Hazardous Waste, Solid Waste, Land Use, NJPDES, Pesticides, Stream Encroachment, TWA, UST, Water Allocation)	List Permit Type:	List ID Numbers:
If your request is in reference to an individual, please provide the individual's name and type, and if the individual is a DEP employee, your relationship with the individual:	Individual's name: Type of Individual: Relationship:	
If the an individual was specified above, the individual was DEP Licensed, please specify the license type the individual holds:	License Type:	

The New Jersey Department of Environmental Protection has responded to your submitted Open Public Records Act (OPRA) record request. The following information will help you understand the response and your next available actions.

Tracking #: This is the Department's assigned Tracking # to your OPRA record request, which should be used in all corresponding matters.

Record Request Response:

- **In Progress** – Based on the nature of the request, the records sought, and/or the manner to which the records may exists, the Department requires additional time to investigate and respond to the request.
- **Filled** – Based on the information provided in your request, the Department was able to investigate and respond to your record request.
- **Denied** – Based on the nature of the request and/or the records sought, the Department has denied your request pursuant to a specific exemption(s) cited in N.J.S.A. 47:1A-1 seq.
- **Partial** – The Department has identified both responsive government records and records being denied based on the nature of the request and/or the records sought, that do not meet the definition of a government record pursuant to a specific exemption(s) cited in N.J.S.A. 47:1A-1 seq.

Disposition Notes: Provides detailed information concerning the Department's response to your request.

Accessing Records: Dependent on the volume of records and your interest, there are five (5) methods available to access the responsive government records:

- **File Review** – Schedule a file review with the Department to directly access the records and take notes or tag records of interest for copying. Copying can be performed by either the Department's onsite Copying Unit at State duplication fee costs or by the requester employing a Copy Vendor Service. If there are records stored in archives, a five-day processing period will be included prior to scheduling a review.
- **Copy Request** – All records of interest will be copied by the Department's onsite Copying Unit at State duplication fee costs unless a Copy Vendor Service is employed.
- **Electronic Records Request** – Dependent on the size & nature of the e-records, the Department will email the records or provide a CD or DVD.
- **Fax Request** – Based on the number of pages, the Department faxes the responsive records.
- **Web Access** – The responsive records can be access directly through the Department's web site. Web address will be provided.

Access to Government Records Under the New Jersey Open Public Records Act (N.J.S.A. 47:1A-1 et seq.)

1. The fees for duplication of a government record are specified below. We will notify you of any special charges, special service charges or other additional charges authorized by State law or regulation before processing your request. Payment shall be made by check or money order payable to the State of New Jersey and mailed to the address specified below.

Hard Copies:	Letter & Legal size	= $0.05 per page	**Electronic Records:** CDs = $0.55 per CD
	Oversized Maps (Color)	= $5.00 per map	DVDs = $0.55 per DVD
	Oversized Maps (B&W)	= $3.00 per map	

2. Pursuant to OPRA (C.47:1A-5c & C47:1A-5d), the Department will apply special service charge for any extraordinary expenditure of time and effort to accommodate a request. The special service charge will be based on the actual direct cost of providing the records. The requester shall have the opportunity to review and object to the charge prior to it being incurred; however, in the event the requester objects to the special service charge, the request will be closed and access to the records will not be granted.

3. By law, the Department must notify you that it grants or denies a request for access to government records within seven business days after the custodian of the record requested receives the request, provided that the record is currently available and not in storage. If the record requested is not currently available or is in storage, the custodian will advise you within seven business days when the record can be made available and the estimated cost. You may agree with the custodian to extend the time for making records available, or granting or denying your request.

4. You may be denied access to a government record if your request would substantially disrupt agency operations and the custodian is unable to reach a reasonable solution with you.

5. If the Department was unable to comply with your request for access to a government record, the custodian will indicate the reasons for denial on the request form.

6. Except as otherwise provided by law or by agreement with the requester, if the custodian of the record requested fails to respond to you within seven business days of receiving a request form, the failure to respond will be considered a denial of your request.

7. **Resolution of Disputed Findings:**

   In the event that a requester does not agree with the Department's record response, the requester should:

   No Records - Reexamined the request details to evaluate if all of the information was provided that could aid the Department in locating records. The Department's ability to identify records of interest is in direct correlation to matching the Department information with the information provided on the request. Such important identifiers are Facility/Site Name, Address, Case #, Permit #, Block/Lot.

   Denial - If your request for access to a government record has been denied or unfilled within the time permitted by law, you have a right to challenge the decision by the Department to deny access. The Department denies access to records only when those records do not meet the definition of a government record and/or public access is not allowed pursuant to the law. At your option, you may either:

   a. Contact the Office of Record Access to re-visit the matter or provide further explanation.

   b. Institute a proceeding in the Superior Court of New Jersey

   c. File a complaint in writing with the Government Records Council (GRC). You may contact the GRC by toll-free telephone at 866-850-0511, by mail at PO Box 819, Trenton, NJ, 08625, by e-mail at *grc@dca.state.nj.us*, or at their web site at *www.state.nj.us/grc*. The Council can also respond to other questions about the law.

8. Information provided on this form may be subject to disclosure under the Open Public Records Act.

Revised Addendum Disposition Notes: NONE

The New Jersey Department of Environmental Protection (NJDEP), acknowledges the receipt of your Open Public Records Act (OPRA) record request. The NJDEP will respond to your request within seven (7) business days.

If you have any questions, please contact the Office of Record Access at (609) 341-3121, or e-mail our office at: records.custodian@dep.nj.gov. The assigned OPRA Record Request Tracking #, identified in the Subject Line of this email, will facilitate future communications with our office.

Thank you,

NJDEP - Office of Record Access

OPRA Request Tracking Number: 244848

Date Received:	02/19/2019
Date Submitted:	02/19/2019
Access Method:	Send Electronic copies

Requesting Party Information

Name:	Nicholas DiVincent
Affiliations:	EWMA
Mailing Address:	100 Misty Lane Parsippany, NJ 070542741
Phone:	(973) 560-1400
Email:	Nicholas.DiVincent@ewma.com

Request Information

Facility Name:	
Block\Lot:	12301 1
Address:	50 Division Avenue Long Hill Twp - Morris
Owner:	
Operator:	
Permit Type:	
License Type:	
Related IDs:	
Individual:	
Individual Type:	

Request Details:

We are conducting a environmental assessment of property address located at 50 Division Avenue, Long Hill Township (Millington) Block 12301 Lot 1. As part of this assessment, we are requesting that your office perform a records search for seek all identifiable remedial, permitting and enforcement violations on the subject property.

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Desiree Orsino

From: Morris County NJ OPRA Center <morriscountynj@mycusthelp.net>
Sent: Tuesday, February 19, 2019 11:35 AM
To: Desiree Orsino
Subject: Morris County - Open Public Records Request :: C002462-021919

Dear Desiree Orsino:

Thank you for your interest in open public records of Morris County OPRA Center. Your request has been received and is being processed in accordance with the Open Public Records Act (OPRA). Your request was given the reference number C002462-021919 for tracking purposes.

Records Requested: Property located at 50 Division Avenue, Long Hill Township (Millington) Block 12301 Lot 1 EWMA requests documentation on the property site from 1950 until present: Site plans; UST/AST permits; inspection reports; septic/sewer, NJDEP Correspondence, spills/releases, chemical treatment or disposal of chemical storage or waste water discharge, sewer connections, and chemical inventories of reported spills.

Your request will be forwarded to the relevant County department(s) to locate the information you seek and to determine the volume and any costs associated with satisfying your request. You will be contacted about the availability and/or provided with copies of the records in question. PLEASE NOTE: The State Public Information Act does not require a governmental body to create new information, to do legal research, or to answer questions.

You can monitor the progress of your request at the link below and you'll receive an email when your request has been completed. Again, thank you for using the Morris County OPRA Center.

County of Morris, NJ

To monitor the progress or update this request please log into the Morris County OPRA Center.

Desiree Orsino

From: Morris County NJ OPRA Center <morriscountynj@mycusthelp.net>
Sent: Wednesday, February 20, 2019 11:41 AM
To: Desiree Orsino
Subject: [Records Center] Morris County - Open Public Records Request :: C002461-021919

--- Please respond above this line ---

RE: OPRA REQUEST of Reference # C002461-021919

Dear Ms. Orsino:

The County of Morris received a public information request from you on February 19, 2019. Your request mentioned:

"Property Located at 50 Division Avenue, Long Valley (Millington) Block 12301 Lot 1
EWMA requests documentation on the property site from 1950 Until present: Site plans; UST/AST permits; inspection reports; septic/sewer, NJDEP Correspondence, spills/releases, chemical treatment or disposal of chemical storage or waste water discharge, sewer connections, and chemical inventories of reported spills."

The County of Morris, Office of Health Management has reviewed its files and has determined there are no responsive documents to your request.

Your OPRA request is now deemed answered and closed. Thank you for your attention to this matter. If you have any questions, or wish to discuss this further, you may contact my office at 973-829-8126.

Sincerely,

Evelyn Tierney
OPRA Officer
Administration

To monitor the progress or update this request please log into the Morris County OPRA Center.

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19-0042

TOWNSHIP OF LONG HILL
OPEN PUBLIC RECORDS ACT REQUEST FORM

7/13/2016
revision

915 Valley Road Gillette, NJ 07933
PH: (908) 647-8000 ext. 215 FAX: (908) 647-4150
Website: www.longhillnj.gov municipalclerk@longhillnj.gov
ALL OPRA REQUESTS MUST BE SUBMITTED TO THE CLERK'S OFFICE

Important Notice

The last page of this form contains important information related to your rights concerning government records. Please read it carefully.

Requestor Information – Please Print

First Name Nicholas MI ____ Last Name DiVincent

E-mail Address Nicholas.Divincent@ewma.com

Mailing Address 100 Misty Lane

City Pasrippany State NJ Zip 07054-2741

Telephone 973-560-1400 ext 186 FAX 973-560-0400

Preferred Delivery: Pick Up ____ US Mail ____ On-Site Inspect ____ Other email X

If you are requesting records containing personal information, please circle one: Under penalty of N.J.S.A. 2C:28-3, I certify that I ~~*HAVE / I HAVE NOT*~~ been convicted of any indictable offense under the laws of New Jersey, any other state, or the United States.

Signature [signature] Date 02/19/2019

Payment Information

Maximum Authorization Cost $

Select Payment Method

Cash Check Money Order

Actual Cost shall not exceed:

Fees: Per Letter Page @$0.05
Per Legal Page @$0.07
Large Prints @$5.00
Per CD @$0.50
Per DVD @$3.00

Delivery: Delivery / postage fees additional depending upon delivery type.

Extras: Special service charge dependant upon request.

Record Request Information: Please be as specific as possible in describing the records being requested. Also, please note that your preferred method of delivery will only be accommodated if the custodian has the technological means and the integrity of the records will not be jeopardized by such method of delivery.

Property located at 50 Division Avenue, Block 12301 Lot 1
EWMA is seeking environmental documentation on the property site from the following departments from the year 2005 until the present:
• Building: UST/AST permits, – ATTACHED CERTIFICATE
• Health/ Fire Dept: Chemical inventory, spill records, NJDEP Correspondence, chemical inspection reports,
• Engineering: Septic System construction, and
Tax Assessor: Property Cards

6/4/2013 7/7/2016 AGENCY USE ONLY

Est. Document Cost ____
Est. Delivery Cost ____
Est. Extras Cost ____
Total Est. Cost ____
Deposit Amount ____
Estimated Balance ____
Deposit Date ____

AGENCY USE ONLY

Disposition Notes
Custodian: If any part of request cannot be delivered in seven business days, detail reasons here.

In Progress - Open ____
Denied - Closed ____
Filed - Closed 2/26/19
Partial - Closed ____

AGENCY USE ONLY

Tracking Information

Tracking # ____
Rec'd Date ____
Ready Date ____
Total Pages ____

Final Cost

Total ____
Deposit ____
Balance Due ____
Balance Paid ____

Records Provided

ALL BUILDING RECORDS REGARDING ABOVE ATTACHED. EMAILED REQUESTER / CLERKS OFFICE

Custodian Signature ____ Date ____

TOWNSHIP OF LONG HILL
1802 LONG HILL RD.
MILLINGTON, NEW JERSEY 07946
(908) 647-1612

NEW JERSEY UNIFORM CONSTRUCTION CODE

CERTIFICATE

Date Issued 6/10/93
Control #
Permit # 8263

IDENTIFICATION

Block 119 Lot 1
Work Site Location 50 Division Ave.
Millington, NJ
Owner in Fee Tifa Limited
Address Same as above

Tele. ( ) 647-4570
Contractor C.L. Neville Const.
Address 41 N. 8th St.
Kenilworth, NJ
Tele. ( ) 276-5545
Lic. No. or Bldrs. Reg. No.
Federal Emp. No. 22-2637230
or Social Security No.

Home Warranty No. N/A
Use Group U
Maximum Live Load
Description of Work/Use:

Abandonment in place, of 2 30,000 gal fuel oil tanks.

Type of Warranty Plan: [ ] **State** [ ] **Private**
Construction Classification
Maximum Occupancy Load

CERTIFICATE OF OCCUPANCY/APPROVAL

☐ **CERTIFICATE OF OCCUPANCY** ☑ **CERTIFICATE OF APPROVAL**

This serves notice that said building, structure, or equipment has been constructed or installed in accordance with the New Jersey Uniform Construction Code, and is approved for use and/or occupancy.

☐ **CERTIFICATE OF CONTINUED OCCUPANCY**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **TEMPORARY CERTIFICATE OF OCCUPANCY**

If this is a Temporary Certificate of Occupancy the following conditions must be met no later than _____, 19____ or the owner will be subject to a fine or order to vacate:

Fee $
Paid [ ] Check No.
Collected by:

Mary Ellen Balady
CONSTRUCTION OFFICIAL

U.C.C. Form F-260A

1 WHITE—APPLICANT 2 CANARY—OFFICE 3 PINK—TAX ASSESSOR

TOWNSHIP OF LONG HILL
OPEN PUBLIC RECORDS ACT REQUEST FORM

7/13/2016
revision

915 Valley Road Gillette, NJ 07933
PH: (908) 647-8000 ext. 215 FAX: (908) 647-4150
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First Name Nicholas MI ____ Last Name DiVincent

E-mail Address Nicholas.Divincent@ewma.com

Mailing Address 100 Misty Lane

City Pasrippany State NJ Zip 07054-2741

Telephone 973-560-1400 ext 166 FAX 973-560-0400

Preferred Delivery: Pick Up ____ US Mail ____ On-Site Inspect ____ Other email -X

If you are requesting records containing personal information, please circle one: Under penalty of N.J.S.A. 2C:28-3, I certify that I ***HAVE / HAVE NOT*** been convicted of any indictable offense under the laws of New Jersey, any other state, or the United States.

Signature [signature] Date 02/19/2019

Payment Information

Maximum Authorization Cost $

Select Payment Method

Cash Check Money Order

Actual Cost shall not exceed:

Fees: Per Letter Page @$0.05
Per Legal Page @$0.07
Large Prints @$5.00
Per CD @$0.50
Per DVD @$3.00

Delivery: Delivery / postage fees additional depending upon delivery type.

Extras: Special service charge dependent upon request.

Record Request Information: Please be as specific as possible in describing the records being requested. Also, please note that your preferred method of delivery will only be accommodated if the custodian has the technological means and the integrity of the records will not be jeopardized by such method of delivery.

Property located at 50 Division Avenue, Block 12301 Lot 1
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• Building: UST/AST permits,
• Health/ Fire Dept: Chemical inventory, spill records, NJDEP Correspondence, chemical inspection reports,
• Engineering: Septic System construction, and
Tax Assessor: Property Cards

6/4/20137/7/2016AGENCY USE ONLY

Est. Document Cost ____
Est. Delivery Cost ____
Est. Extras Cost ____
Total Est. Cost ____
Deposit Amount ____
Estimated Balance ____

Deposit Date ____

AGENCY USE ONLY

Disposition Notes
Custodian: If any part of request cannot be delivered in seven business days, detail reasons here.

In Progress - Open ____
Denied - Closed ____
Filled - Closed ____
Partial - Closed ____

AGENCY USE ONLY

Tracking Information

Tracking # ____
Rec'd Date ____
Ready Date ____
Total Pages ____

Final Cost

Total ____
Deposit ____
Balance Due ____
Balance Paid ____

Records Provided

Custodian Signature ____ Date ____

DEPOSITS

The custodian may require a deposit against costs for reproducing documents sought through an anonymous request whenever the custodian anticipates that the documents requested will cost in excess of $5 to reproduce.

Where a special service charge is warranted under OPRA, that amount will be communicated to you as required under the statute. You have the opportunity to review and object to the charge prior to it being incurred. If, however, you approve of the fact and amount of the special service charge, you may be required to pay a deposit or pay in full prior to reproduction of the documents.

YOUR REQUEST FOR RECORDS IS DENIED FOR THE FOLLOWING REASON(S):

(To be completed by the Custodian of Records – check the box of the numbered exemption(s) as they apply to the records requested. If multiple records are requested, be specific as to which exemption(s) apply to each record. **Response is due to requestor as soon as possible, but no later than seven business days.**)

N.J.S.A. 47:1A-1.1

- ☒ Inter-agency or intra-agency advisory, consultative or deliberative material
- ☒ Legislative records
- ☒ Law enforcement records:
  - ☒ Medical examiner photos
  - ☒ Criminal investigatory records (however, N.J.S.A. 47:1A-3.b. lists specific criminal investigatory information which must be disclosed)
  - ☒ Victims' records
- ☒ Trade secrets and proprietary commercial or financial information
- ☒ Any record within the attorney-client privilege
- ☒ Administrative or technical information regarding computer hardware, software and networks which, if disclosed would jeopardize computer security
- ☒ Emergency or security information or procedures for any buildings or facility which, if disclosed, would jeopardize security of the building or facility or persons therein
- ☒ Security measures and surveillance techniques which, if disclosed, would create a risk to the safety or persons, property, electronic data or software
- ☒ Information which, if disclosed, would give an advantage to competitors or bidders
- ☒ Information generated by or on behalf of public employers or public employees in connection with:
  - ☒ Any sexual harassment complaint filed with a public employer
  - ☒ Any grievance filed by or against an employee
  - ☒ Collective negotiations documents and statements of strategy or negotiating
- ☒ Information that is a communication between a public agency and its insurance carrier, administrative service organization or risk management office
- ☒ Information that is to be kept confidential pursuant to court order
- ☒ Certificate of honorable discharge issued by the United States government (Form DD-214) filed with a public agency
- ☒ Social security numbers
- ☒ Credit card numbers
- ☒ Unlisted telephone numbers
- ☒ Drivers' license numbers
- ☒ Certain records of higher education institutions:
  - ☒ Research records
  - ☒ Questions or scores for exam for employment or academics
  - ☒ Charitable contribution information
  - ☒ Rare book collections gifted for limited access
  - ☒ Admission applications
  - ☒ Student records, grievances or disciplinary proceedings revealing a students' identification
- ☒ Biotechnology trade secrets **N.J.S.A. 47:1A-1.2**
- ☒ Convicts requesting their victims' records **N.J.S.A. 47:1A-2.2**
- ☒ Ongoing investigations of non-law enforcement agencies (must prove disclosure is inimical to the public interest) **N.J.S.A. 47:1A-3.a.**
- ☒ Public defender records **N.J.S.A. 47:1A-5.k.**
- ☒ Upholds exemptions contained in other State or federal statutes and regulations, Executive Orders, Rules of Court, and privileges created by State Constitution, statute, court rule or judicial case law **N.J.S.A. 47:1A-9**
- ☒ Personnel and pension records (however, the following information must be disclosed:
  - An individual's name, title, position, salary, payroll record, length of service, date of separation and the reason for such separation, and the amount and type of any pension received
  - When required to be disclosed by another law, when disclosure is essential to the performance of official duties of a person duly authorized by this State or the US, or when authorized by an individual in interest
  - Data contained in information which disclose conformity with specific experiential, educational or medical qualifications required for government employment or for receipt of a public pension, but not including any detailed medical or psychological information **N.J.S.A. 47:1A-10**

N.J.S.A. 47:1A-1

- ☐ "a public agency has a responsibility and an obligation to safeguard from public access a citizen's personal information with which it has been entrusted when disclosure thereof would violate the citizen's reasonable expectation of privacy."

Burnett v. County of Bergen, 198 N.J. 408 (2009). Without ambiguity, the court held that the privacy provision "is neither a preface nor a preamble." Rather, "the very language expressed in the privacy clause reveals its substantive nature; it does not offer reasons why OPRA was adopted, as preambles typically do; instead, it focuses on the law's implementation." "Specifically, it imposes an obligation on public agencies to protect against disclosure of personal information which would run contrary to reasonable privacy interests."

Executive Order No. 21 (McGreevey 2002)

- ☐ Records where inspection, examination or copying would substantially interfere with the State's ability to protect and defend the State and its citizens against acts of sabotage or terrorism, or which, if disclosed, would materially increase the risk or consequences of potential acts of sabotage or terrorism.
- ☐ Records exempted from disclosure by State agencies' proposed rules.

Executive Order No. 26 (McGreevey 2002)

- ☐ Certain records maintained by the Office of the Governor
- ☐ Resumes, applications for employment or other information concerning job applicants while a recruitment search is ongoing
- ☐ Records of complaints and investigations undertaken pursuant to the Model Procedures for Internal Complaints Alleging Discrimination, Harassment or Hostile Environments
- ☐ Information relating to medical, psychiatric or psychological history, diagnosis, treatment or evaluation
- ☐ Information in a personal income or other tax return
- ☐ Information describing a natural person's finances, income, assets, liabilities, net worth, bank balances, financial history or activities, or creditworthiness, except as otherwise required by law to be disclosed
- ☐ Test questions, scoring keys and other examination data pertaining to the administration of an examination for public employment or licensing
- ☐ Records in the possession of another department (including NJ Office of Information Technology or State Archives) when those records are made confidential by regulation or EO 9.

Other Exemption(s) contained in a State statute, resolution of either or both House of the Legislature, regulation, Executive Order, Rules of Court, any federal law, federal regulation or federal order pursuant to N.J.S.A. 47:1A-9.a.

(Please provide detailed information regarding the exemption from disclosure for which you are relying to deny access to government records. If multiple records are requested, be specific as to which exemption(s) apply to each record.)

REQUEST FOR RECORDS UNDER THE COMMON LAW

If, in addition to requesting records under OPRA, you are also requesting the government records under the common law, please check the box below.

A public record under the common law is one required by law to be kept, or necessary to be kept in the discharge of a duty imposed by law, or directed by law to serve as a memorial and evidence of something written, said, or done, or a written memorial made by a public officer authorized to perform that function, or a writing filed in a public office. The elements essential to constitute a public record are that it be a written memorial, that it be made by a public officer, and that the officer be authorized by law to make it.

☐ Yes, I am also requesting the documents under common law.

If the information requested is a "public record" under common law and the requestor has a legally recognized interest in the subject matter contained in the material, then the material must be disclosed if the individual's right of access outweighs the State's interest in preventing disclosure.

Please set forth your interest in the subject matter contained in the requested material:

_____

_____

_____

Note that any challenge to a denial of a request for records under the common law cannot be made to the Government Records Council, as the Government Records Council only has jurisdiction to adjudicate challenges to denials of OPRA requests. A challenge to the denial of access under the common law can be made by filing an action in Superior Court.

1. All government records are subject to public access under the Open Public Records Act ("OPRA"), unless specifically exempt.
2. A request for access to a government record under OPRA must be in writing, hand-delivered, mailed, transmitted electronically, or otherwise conveyed to the appropriate custodian. N.J.S.A. 47:1A-5.g. The seven (7) business day response time does not commence until the records custodian receives the request form. If you submit the request form to any other officer or employee of the ***Township of Long Hill***, that officer or employee must either forward the request to the appropriate custodian, or direct you to the appropriate custodian. N.J.S.A. 47:1A-5.h.
3. Requestors may submit requests anonymously. If you elect not to provide a name, address, or telephone number, or other means of contact, the custodian is not required to respond until you reappear before the custodian seeking a response to the original request.
4. The fees for duplication of a government record in printed form are listed on the front of this form. We will notify you of any special service charges or other additional charges authorized by State law or regulation before processing your request. Payment shall be made by cash, check or money order payable to the ***Township of Long Hill.***
5. ***You may be charged a 50% or other deposit when a request for copies exceeds $25.*** The ***Township of Long Hill*** custodian will contact you and advise you of any deposit requirements. You agree to pay the balance due upon delivery of the records. Anonymous requests in excess of $5.00 require a deposit of 100% of estimated fees.
6. Under OPRA, a custodian must deny access to a person who has been convicted of an indictable offense in New Jersey, any other state, or the United States, **and** who is seeking government records containing personal information pertaining to the person's victim or the victim's family. This includes anonymous requests for said information.
7. By law, the ***Township of Long Hill*** must notify you that it grants or denies a request for access to government records within seven (7) business days after the agency custodian of records receives the request. If the record requested is not currently available or is in storage, the custodian will advise you within seven (7) business days after receipt of the request when the record can be made available and the estimated cost for reproduction.
8. You may be denied access to a government record if your request would substantially disrupt agency operations and the custodian is unable to reach a reasonable solution with you.
9. If the ***Township of Long Hill*** is unable to comply with your request for access to a government record, the custodian will indicate the reasons for denial on the request form or other written correspondence and send you a signed and dated copy.
10. Except as otherwise provided by law or by agreement with the requester, if the agency custodian of records fails to respond to you within seven (7) business days of receiving a request, the failure to respond is a deemed denial of your request.
11. If your request for access to a government record has been denied or unfilled within the seven (7) business days required by law, you have a right to challenge the decision by the ***Township of Long Hill*** to deny access. At your option, you may either institute a proceeding in the Superior Court of New Jersey or file a complaint with the Government Records Council ("GRC") by completing the Denial of Access Complaint Form. You may contact the GRC by toll-free telephone at 866-850-0511, by mail at PO Box 819, Trenton, NJ, 08625, by e-mail at *grc@dca.state.nj.us*, or at their web site at *www.state.nj.us/grc*. The Council can also answer other questions about the law. All questions regarding complaints filed in Superior Court should be directed to the Court Clerk in your County.
12. Information provided on this form may be subject to disclosure under the Open Public Records Act.

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 6

EDR Database Radius Report

50 Division Avenue
50 Division Avenue
Millington, NJ 07946

Inquiry Number: 5565949.2s
February 19, 2019

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

50 DIVISION AVENUE
MILLINGTON, NJ 07946

COORDINATES

Latitude (North):	40.6722240 - 40° 40' 20.00''
Longitude (West):	74.5244220 - 74° 31' 27.91''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	540195.4
UTM Y (Meters):	4502269.5
State Plane X (Feet):	485351.1
State Plane Y (Feet):	669787.8
Elevation:	243 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6048997 BERNARDSVILLE, NJ
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150731
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
50 DIVISION AVENUE
MILLINGTON, NJ 07946

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	GELLNER & CO INC	50 DIVISION AVE	RCRA NonGen / NLR		TP
A2	IMPERIAL METAL PRODU	50 DIVISION AVE	FINDS		TP
A3	GATOR LURES CORP	50 DIVISION AVE	FINDS		TP
A4	TIFA LTD	50 DIVISION ST	NJ Release		TP
A5	SPHINX ELECTRO-PLATI	50 DIVISION AVE	FINDS, ECHO		TP
A6	TIFA LTD	50 DIVISION ST	NJ SPILLS		TP
A7	TIFA LTD	50 DIVISION AVE	ICIS, FINDS, ECHO		TP
A8	LUX DIGITAL CORP	50 DIVISION AVE	FINDS		TP
A9	TIFA LIMITED	50 DIVISION AVE	NJ HIST LUST, NJ UST, NJ Release, NJ ISRA, NJ...		TP
A10	TIFA INTL LLC	50 DIVISION AVE	SSTS		TP
A11	POLE TRANSFORMER/JC1	50 DIVISION AVE	NJ SPILLS		TP
A12		50 DIVISION AVE	NJ Release		TP
A13	AREA OF	50 DIVISION AVE	NJ Release		TP
A14	RW DELIGHTS INC	50 DIVISION AVE	FINDS		TP
A15	NORTHEAST INSTRUMENT	50 DIVISION AVENUE P	MLTS		TP
A16	ESCO PRECISION INC	50 DIVISION AVE	FINDS		TP
A17	SPHINX ELECTRO PLATI	50 DIVISION AVE	FINDS		TP
A18	AUTODRILL CORP	50 DIVISION AVE	FINDS		TP
A19	TIFA LTD	TIFA SQUARE, 50 DIVI	SSTS		TP
A20	TIFA LIMITED	50 DIVISION AVE	FTTS, HIST FTTS		TP
A21	GELLNER & CO INC	50 DIVISION AVE	FINDS, ECHO		TP
A22	LAWN DOCTOR OF BERNA	50 DIVISION AVE	FINDS		TP
A23	AREA OF	50 DIVISION AVE	NJ SPILLS		TP
A24	TIFA INTERNATIONAL L	50 DIVISION AVE - UN	RCRA NonGen / NLR		TP
A25	WINTRONICS INC	50 DIVISION AVE	FINDS		TP
A26	SPHINX ELECTROPLATIN	50 DIVISION AVE	RCRA NonGen / NLR		TP
A27	ANNIS FUEL OIL SERVI	50 DIVISION AVE	NJ ENG CONTROLS, NJ MANIFEST		TP
A28	WILD BILLS OLDE FASH	50 DIVISION AVE	FINDS		TP
A29	TIFA INTERNATIONAL C	50 DIVISION AVE	NJ NJEMS		TP
A30	ASBESTOS DUMP	TIFA SQUARE - 50 DIV	ICIS		TP
A31	TIFA (CI) LIMITED	TIFA SQUARE 50 DIVIS	ICIS		TP
B32	ASBESTOS DUMP	TIFA SQUARE	FINDS, ECHO	Lower	1 ft.
B33	ASBESTOS DUMP	TIFA SQUARE	Delisted NPL, SEMS, US ENG CONTROLS, US INST...	Lower	1 ft.
C34	MILLINGTON CENTRAL O	5 DIVISION AVE	RCRA NonGen / NLR	Higher	70, 0.013, ENE
C35	NEW JERSEY BELL TELE	59 DIVISION AVE	NJ UST	Higher	70, 0.013, East
D36	MILLINGTON R BARRETT	33 STONEHOUSE RD	NJ HIST LUST	Lower	81, 0.015, South
D37	THE BARRETT CO	33 STONEHOUSE RD	NJ UST	Lower	81, 0.015, South
D38	BARRETT COMPANY	33 STONEHOUSE RD	NJ HIST LUST, NJ Release	Lower	81, 0.015, South
C39	VERIZON VACANT LAND	53 DIVISION AVE	NJ UST	Higher	86, 0.016, East

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50 DIVISION AVENUE
MILLINGTON, NJ 07946

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MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
C40	A.D.RUNYON CO	45 DIVISION AVENUE	NJ HIST LUST	Higher	86, 0.016, ENE
C41	AD RUNYON CO	45 DIVISION AVE	NJ SHWS, NJ HIST HWS, NJ HIST LUST, NJ UST, NJ...	Higher	86, 0.016, ENE
D42	MILLINGTON QUARRY IN	STONEHOUE RD	NJ UST	Higher	122, 0.023, SSE
E43	PALUMBO ASSOCIATES I	85 DIVISION AVE	RCRA NonGen / NLR, NY MANIFEST	Higher	145, 0.027, ESE
E44	M & R CITGO STATION	85 DIVISION AVE	EDR Hist Auto	Higher	145, 0.027, ESE
E45	85A DIVISION AVENUE	85A DIVISION AVE	NJ UST	Higher	145, 0.027, ESE
C46	CAMICAO ENTERPRISES	1911 LONG HILL RD	EDR Hist Cleaner	Higher	219, 0.041, NE
C47	LONG HILL AUTO SERVI	1905 LONG HILL RD	EDR Hist Auto	Higher	229, 0.043, NE
C48	MILLINGTON AUTO BODY	1905 LONG HILL RD	NJ MANIFEST	Higher	229, 0.043, NE
C49	TRIMMERT HAAS	1905 LONG HILL RD	NJ UST	Higher	229, 0.043, NE
C50	LONG HILL AUTO SERVI	1905 LONGHILL RD	RCRA NonGen / NLR	Higher	229, 0.043, NE
C51	MILLINGTON AUTO BODY	1905 LONG HILL RD	RCRA NonGen / NLR, US AIRS, FINDS, ECHO, NJ AIRS,...	Higher	229, 0.043, NE
52	RICHARD CORIELL & CO	1926 LONG HILL RD	NJ SHWS, NJ UST	Higher	329, 0.062, NNE
F53	KARG'S FUEL OIL CO	1901 1903 LONG HILL	NJ SHWS	Higher	330, 0.062, NE
F54	KARG FUEL OIL INCORP	1903 LONG HILL RD	NJ VCP	Higher	330, 0.062, NE
F55	KARG'S FUEL OIL CO	1903 LONG HILL RD	NJ UST	Higher	330, 0.062, NE
F56	KARG'S FUEL OIL CO	1903 LONG HILL RD	NJ UST	Higher	330, 0.062, NE
57	126 DIVISION AVENUE	126 DIVISION AVE	NJ VCP, NJ NJEMS	Lower	716, 0.136, SSE
58	30 MIDVALE AVE	30 MIDVALE AVE	NJ SHWS	Higher	802, 0.152, ESE
59	25 SUNSET PLACE	25 SUNSET PL	NJ SHWS, NJ HIST HWS, NJ VCP, NJ NJEMS	Higher	1060, 0.201, ENE
60	NAVAL IND RESRV PLAN		FUDS	Lower	1213, 0.230, South
61	142 CHURCH ROAD	142 CHURCH RD	NJ SHWS, NJ NJEMS	Higher	1306, 0.247, North
62	182 NORTHFIELD ROAD	182 NORTHFIELD RD	NJ SHWS, NJ NJEMS	Higher	1475, 0.279, ESE
G63	84 CHURCH ROAD	84 CHURCH RD	NJ VCP	Higher	1501, 0.284, NNE
H64	45 NORTHFIELD ROAD	45 NORTHFIELD RD	NJ SHWS, NJ VCP, NJ NJEMS	Higher	1536, 0.291, ENE
H65	37 NORTHFIELD ROAD	37 NORTHFIELD RD	NJ SHWS, NJ VCP, NJ NJEMS, NJ Release	Higher	1565, 0.296, ENE
66	169 NORTHFIELD ROAD	169 NORTHFIELD RD	NJ SHWS, NJ VCP, NJ NJEMS	Higher	1649, 0.312, ESE
G67	59 CROSS HILL ROAD	59 CROSS HILL RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	1753, 0.332, NNE
I68	95 HIGHLAND AVENUE	95 HIGHLAND AVE	NJ VCP	Higher	1760, 0.333, West
I69	95 HIGHLAND AVENUE	95 HIGHLAND AVE	NJ SHWS, NJ NJEMS	Higher	1760, 0.333, West
70	96 CROSS HILL ROAD	96 CROSS HILL RD	NJ SHWS, NJ VCP, NJ NJEMS	Higher	1811, 0.343, North
J71	46 CHURCH ROAD	46 CHURCH RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	1840, 0.348, NNE
72	15 TALL TIMBER DRIVE	15 TALL TIMBER DR	NJ VCP	Higher	1849, 0.350, NW
K73	41 OVERLOOK AVENUE	41 OVERLOOK AVE	NJ VCP	Higher	1899, 0.360, West
I74	90 HIGHLAND AVENUE	90 HIGHLAND AVE	NJ SHWS, NJ HIST HWS, NJ VCP, NJ NJEMS, NJ Release	Higher	1946, 0.369, West
J75	15 CROSS HILL ROAD	15 CROSS HILL RD	NJ SHWS, NJ VCP	Higher	2004, 0.380, NNE
L76	86 HIGHLAND AVENUE	86 HIGHLAND AVE	NJ SHWS, NJ NJEMS	Higher	2070, 0.392, West
L77	86 HIGHLAND AVENUE	86 HIGHLAND AVE	NJ VCP	Higher	2070, 0.392, West
J78	35 BASKING RIDGE ROA	35 BASKING RIDGE RD	NJ SHWS, NJ NJEMS	Higher	2083, 0.395, NNE

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50 DIVISION AVENUE
MILLINGTON, NJ 07946

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MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
79	63 BASKING RIDGE ROA	63 BASKING RIDGE RD	NJ SHWS, NJ VCP, NJ NJEMS	Higher	2087, 0.395, NNE
M80	ALL SAINTS CHURCH NU	15 BASKING RIDGE RD	NJ VCP	Higher	2093, 0.396, NE
N81	63 OVERLOOK AVENUE	63 OVERLOOK AVE	NJ SHWS	Higher	2109, 0.399, West
N82	63 OVERLOOK AVENUE	63 OVERLOOK AVE	NJ VCP	Higher	2109, 0.399, West
K83	36 OVERLOOK AVENUE	36 OVERLOOK AVE	NJ VCP	Higher	2117, 0.401, West
K84	36 OVERLOOK AVENUE	36 OVERLOOK AVE	NJ SHWS, NJ NJEMS	Higher	2117, 0.401, West
M85	ALL SAINT CHURCH NUR	15 BASKING RIDGE RD	NJ SHWS, NJ NJEMS	Higher	2177, 0.412, NE
L86		79 HIGHLAND AVE	NJ SHWS, NJ Release	Higher	2217, 0.420, West
87	179 OAKS ROAD	179 OAKS RD	NJ SHWS, NJ VCP	Higher	2247, 0.426, NNW
88	117 BASKING RIDGE RO	117 BASKING RIDGE RD	NJ SHWS, NJ VCP, NJ NJEMS	Higher	2264, 0.429, North
O89	56 OVERLOOK AVENUE	56 OVERLOOK AVE	NJ VCP, NJ Release	Higher	2265, 0.429, West
O90	56 OVERLOOK AVENUE	56 OVERLOOK AVE	NJ SHWS, NJ NJEMS	Higher	2265, 0.429, West
91	1948 VALLEY ROAD	1948 VALLEY RD	NJ SHWS, NJ VCP, NJ NJEMS	Higher	2265, 0.429, South
92	75 HIGHLAND AVENUE	75 HIGHLAND AVE	NJ SHWS, NJ VCP, NJ NJEMS	Higher	2362, 0.447, West
93	162 BASKING RIDGE RO	162 BASKING RIDGE RD	NJ SHWS, NJ VCP, NJ NJEMS	Higher	2467, 0.467, North
P94	175 BASKING RIDGE RO	175 BASKING RIDGE RD	NJ SHWS, NJ NJEMS	Higher	2487, 0.471, North
Q95	68 HAAS ROAD	68 HAAS RD	NJ VCP, NJ Release	Higher	2560, 0.485, WSW
Q96	68 HAAS ROAD	68 HAAS RD	NJ SHWS, NJ NJEMS	Higher	2560, 0.485, WSW
P97	10 EAST RAYBURN ROAD	10 E RAYBURN RD	NJ SHWS, NJ VCP	Higher	2635, 0.499, North
98	300 NORTH NORTHFIELD	300 S NORTHFIELD RD	NJ SHWS	Lower	2788, 0.528, SE
R99	9 RAYBURN RD W	9 RAYBURN RD W	NJ HWS RE-EVAL	Higher	2808, 0.532, NNW
Q100	58 HAAS ROAD	58 HAAS RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	2820, 0.534, WSW
101	HUGHES GLEN RESIDENC	59 HAAS RD	NJ SHWS, NJ NJEMS	Lower	2828, 0.536, WSW
R102	9 WEST RAYBURN ROAD	9 W RAYBURN RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	2843, 0.538, NNW
103	59 ROLLING HILL DRIV	59 ROLLING HILL DR	NJ SHWS, NJ NJEMS, NJ Release	Lower	3102, 0.587, South
104	64 WEST RAYBURN ROAD	64 W RAYBURN RD	NJ SHWS	Higher	3187, 0.604, North
S105	56 EAST RAYBURN ROAD	56 E RAYBURN RD	NJ SHWS, NJ VCP, NJ NJEMS	Higher	3194, 0.605, North
106	3027 VALLEY ROAD	3027 VALLEY RD	NJ SHWS, NJ HIST HWS, NJ NJEMS	Lower	3221, 0.610, SSW
S107	59 EAST RAYBURN ROAD	59 E RAYBURN RD	NJ SHWS, NJ NJEMS	Higher	3246, 0.615, North
108	19 CREST DRIVE	19 CREST DR	NJ SHWS, NJ HIST HWS, NJ NJEMS	Lower	3354, 0.635, SSW
S109	71 EAST RAYBURN ROAD	71 E RAYBURN RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	3397, 0.643, North
110	3060 VALLEY ROAD	3060 VALLEY RD	NJ SHWS, NJ NJEMS	Higher	3535, 0.670, SW
111	27 HAAS ROAD	27 HAAS RD	NJ SHWS, NJ NJEMS, NJ Release	Lower	3553, 0.673, WSW
112	ALAN E ZIMMER CHABAD	3048 VALLEY RD	NJ SHWS	Higher	3554, 0.673, SW
113	1603 LONG HILL RD	1603 LONG HILL RD	NJ SHWS	Higher	3617, 0.685, ENE
114	35 CREST DRIVE	35 CREST DR	NJ SHWS, NJ HIST HWS, NJ VCP, NJ NJEMS, NJ Release	Lower	3628, 0.687, SSW
115	HOME OWNER ASSOCIATI	42 RAINBOW DR	NJ SHWS	Lower	3650, 0.691, SSE
116	ESTATE OF SHAW	490 S MAPLE AVE	NJ SHWS, NJ NJEMS, NJ Release	Higher	3819, 0.723, NNW
T117		47 CREST DR	NJ SHWS, NJ Release	Higher	3856, 0.730, SSW

MAPPED SITES SUMMARY

Target Property Address:
50 DIVISION AVENUE
MILLINGTON, NJ 07946

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
118	3066 VALLEY RD	3066 VALLEY RD	NJ SHWS, NJ HIST HWS, NJ VCP, NJ BROWNFIELDS, NJ...	Higher	3886, 0.736, SW
T119	53 CREST DRIVE	53 CREST DR	NJ SHWS, NJ NJEMS	Higher	3961, 0.750, SSW
120	189 STONEHOUSE ROAD	189 STONEHOUSE RD	NJ SHWS, NJ NJEMS	Higher	3972, 0.752, West
121	1462 LONG HILL RD	1462 LONG HILL RD	NJ SHWS	Higher	4070, 0.771, ENE
122	10 HAAS ROAD	10 HAAS RD	NJ SHWS, NJ NJEMS	Higher	4129, 0.782, WSW
U123	67 CREST DRIVE	67 CREST DR	NJ SHWS, NJ VCP, NJ NJEMS	Lower	4227, 0.801, SSW
124	57 DOGWOOD TERRACE	57 DOGWOOD TER	NJ SHWS, NJ NJEMS	Higher	4246, 0.804, NE
U125	70 CREST DRIVE	70 CREST DR	NJ SHWS, NJ VCP, NJ NJEMS, NJ Release	Lower	4278, 0.810, SSW
126	214 OLD FORGE ROAD	214 OLD FORGE RD	NJ SHWS, NJ NJEMS, NJ Release	Lower	4413, 0.836, NNE
V127	STONEHOUSE RD SEWAGE	STONEHOUSE RD	NJ SHWS, NJ UST	Lower	4419, 0.837, WSW
V128	3137 VALLEY ROAD	3137 VALLEY RD	NJ SHWS, NJ NJEMS	Lower	4465, 0.846, WSW
129	3129 VALLEY ROAD	3129 VALLEY RD	NJ SHWS, NJ NJEMS, NJ Release	Lower	4553, 0.862, WSW
130	17 SUN ROAD	17 SUN RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	4640, 0.879, SSW
131	249 OLD FORGE ROAD	249 OLD FORGE RD	NJ SHWS, NJ VCP, NJ NJEMS	Lower	4900, 0.928, NNE
W132	HADLET & PODILCHUK	1576 VALLEY RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	4975, 0.942, ESE
W133	1554 VALLEY ROAD	1554 VALLEY RD	NJ SHWS, NJ HIST HWS, NJ VCP, NJ NJEMS	Higher	5207, 0.986, ESE
134	283 OLD FORGE ROAD	283 OLD FORGE RD	NJ SHWS, NJ VCP	Lower	5250, 0.994, NNE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
GELLNER & CO INC 50 DIVISION AVE LONG HILL TWP, NJ 07946	RCRA NonGen / NLR EPA ID:: NJN986627792	NJN986627792
IMPERIAL METAL PRODU 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110029641332	N/A
GATOR LURES CORP 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110040257245	N/A
TIFA LTD 50 DIVISION ST MILLINGTON, NJ	NJ Release	N/A
SPHINX ELECTRO-PLATI 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110007973318 ECHO Registry ID: 110007973318	N/A
TIFA LTD 50 DIVISION ST MILLINGTON, NJ	NJ SPILLS	N/A
TIFA LTD 50 DIVISION AVE MILLINGTON, NJ 07946	ICIS FRS ID:: 110004179059 FINDS Registry ID:: 110004179059 ECHO Registry ID: 110004179059	N/A
LUX DIGITAL CORP 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110029405454	N/A
TIFA LIMITED 50 DIVISION AVE LONG HILL TWP, NJ 07946	NJ HIST LUST Case Id: 93-01-07-1125	N/A

EXECUTIVE SUMMARY

	Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern NJ UST Facility Id: 024069 Tank Status: Abandoned in Place NJ Release NJ ISRA Pi Number: 024069 Case Status: Assigned to Program Case Status: Withdrawn from ECRA/ISRA Case Status: Exempt from ECRA/ISRA Case Status: NFA (No Further Action) HISTORIC NJ NPDES NJPDES Permit Number: NJ0062341	
TIFA INTL LLC 50 DIVISION AVE MILLINGTON, 7946	SSTS Registration Number:: 082397NJ001 Registration Number:: 082397-NJ-001	N/A
POLE TRANSFORMER/JC1 50 DIVISION AVE LONG HILL, NJ	NJ SPILLS Case Number: 95-3-30-1526-49 Facility Id: 4529	N/A
50 DIVISION AVE 50 DIVISION AVE LONG HILL TWP, NJ 07946	NJ Release	N/A
AREA OF 50 DIVISION AVE MILLINGTON, NJ	NJ Release	N/A
RW DELIGHTS INC 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110040252115	N/A
NORTHEAST INSTRUMENT 50 DIVISION AVENUE P MILLINGTON, NJ 7946	MLTS License Number:: 29-28063-01	N/A
ESCO PRECISION INC 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110029420320	N/A
SPHINX ELECTRO PLATI 50 DIVISION AVE PARSIPPANY, NJ 07054	FINDS	N/A

	Registry ID:: 110031652263	
AUTODRILL CORP 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110032559782	N/A
TIFA LTD TIFA SQUARE, 50 DIVI MILLINGTON, NJ 07946	SSTS Registration Number:: 001439NJ 001 Registration Number:: 001439NJ001	N/A
TIFA LIMITED 50 DIVISION AVE MILLINGTON, NJ 7946	FTTS Database: FTTS INSP, Date of Government Version: 04/09/2009 HIST FTTS Database: HIST FTTS INSP, Date of Government Version: 10/19/2006	N/A
GELLNER & CO INC 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110014681781 ECHO Registry ID: 110014681781	N/A
LAWN DOCTOR OF BERNA 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110030599939	N/A
AREA OF 50 DIVISION AVE MILLINGTON, NJ	NJ SPILLS Case Number: 95-3-30-1500-12 Facility Id: 4521	N/A
TIFA INTERNATIONAL L 50 DIVISION AVE - UN MILLINGTON, NJ 07946	RCRA NonGen / NLR EPA ID:: NJD980762199	NJD980762199
WINTRONICS INC 50 DIVISION AVE BASKING RIDGE, NJ 07920	FINDS Registry ID:: 110032224554	N/A
SPHINX ELECTROPLATIN 50 DIVISION AVE LONG HILL TWP, NJ 07946	RCRA NonGen / NLR EPA ID:: NJS009000126	NJS009000126

ANNIS FUEL OIL SERVI 50 DIVISION AVE MILLINGTON, NJ 07946	NJ ENG CONTROLS Site ID: 27413 NJ MANIFEST EPA Id: NJD980762199	N/A
WILD BILLS OLDE FASH 50 DIVISION AVE MILLINGTON, NJ 07946	FINDS Registry ID:: 110041855338	N/A
TIFA INTERNATIONAL C 50 DIVISION AVE PASSAIC TWP, NJ 07946	NJ NJEMS Site Id: 27413	N/A
ASBESTOS DUMP TIFA SQUARE - 50 DIV MILLINGTON, NJ 07946	ICIS FRS ID:: 110009300381	N/A
TIFA (CI) LIMITED TIFA SQUARE 50 DIVIS MILLINGTON, NJ 07946	ICIS FRS ID:: 110004179059	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

NJ SWF/LF ---------- Solid Waste Facility Directory

State and tribal leaking storage tank lists

NJ LUST ---------- UST Active Remediation Sites Listing
INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
NJ MAJOR FACILITIES ---------- List of Major Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
NJ PF ---------- Publicly Funded Cleanups Site Status Report

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

NJ HIST LF ---------- Solid Waste Facility Directory
NJ SWRCY ---------- Approved Class B Recycling Facilities
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands

ODI Open Dump Inventory
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL Delisted National Clandestine Laboratory Register
US CDL National Clandestine Laboratory Register

Local Land Records

NJ LIENS Environmental LIENS
LIENS 2 CERCLA Lien Information

Records of Emergency Release Reports

HMIRS Hazardous Materials Information Reporting System
NJ SPILLS 90 SPILLS 90 data from FirstSearch
NJ SPILLS 80 SPILLS 80 data from FirstSearch

Other Ascertainable Records

DOD Department of Defense Sites
SCRD DRYCLEANERS State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR Financial Assurance Information
EPA WATCH LIST EPA WATCH LIST
2020 COR ACTION 2020 Corrective Action Program List
TSCA Toxic Substances Control Act
TRIS Toxic Chemical Release Inventory System
RMP Risk Management Plans
RAATS RCRA Administrative Action Tracking System
PADS PCB Activity Database System
COAL ASH DOE Steam-Electric Plant Operation Data
COAL ASH EPA Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER PCB Transformer Registration Database
RADINFO Radiation Information Database
DOT OPS Incident and Accident Data
INDIAN RESERV Indian Reservations
FUSRAP Formerly Utilized Sites Remedial Action Program
UMTRA Uranium Mill Tailings Sites
LEAD SMELTERS Lead Smelter Sites
US MINES Mines Master Index File
ABANDONED MINES Abandoned Mines
UXO Unexploded Ordnance Sites
DOCKET HWC Hazardous Waste Compliance Docket Listing
FUELS PROGRAM EPA Fuels Program Registered Listing
NJ CHROME Chromate Chemical Production Waste Sites
NJ COAL ASH Coal Ash Listing
NJ DRYCLEANERS Drycleaner List
NJ Financial Assurance Financial Assurance Information Listing
NJ GW CONTAM AREAS Groundwater Contamination Areas
NJ HIST MAJOR FACILITIES List of Major Facilities
NJ UIC Underground Injection Wells Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

NJ RGA HWS ---------- Recovered Government Archive State Hazardous Waste Facilities List
NJ RGA LF ---------- Recovered Government Archive Solid Waste Facilities List
NJ RGA LUST ---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal Delisted NPL site list

Delisted NPL: The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may deleted from the NPL where no further response is appropriate.

A review of the Delisted NPL list, as provided by EDR, and dated 12/12/2018 has revealed that there is 1 Delisted NPL site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B33***	***72***
EPA ID:: NJD980654149				
Site ID:: 200769				

Federal CERCLIS list

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 12/12/2018 has revealed that there is 1 SEMS

site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B33***	***72***
Site ID: 0200769				
EPA Id: NJD980654149				

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 07/31/2018 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B33***	***72***
EPA ID:: NJD980654149				
EPA ID:: NJD980654149				

US INST CONTROL: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROL list, as provided by EDR, and dated 07/31/2018 has revealed that there is 1 US INST CONTROL site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B33***	***72***
EPA ID:: NJD980654149				

State- and tribal - equivalent CERCLIS

NJ SHWS: Known contaminated sites in New Jersey except those associated with Bureau of Underground Storage Sites (BUST)

A review of the NJ SHWS list, as provided by EDR, and dated 10/23/2018 has revealed that there are 68 NJ SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AD RUNYON CO	***45 DIVISION AVE***	***ENE 0 - 1/8 (0.016 mi.)***	***C41***	***106***
Site ID: 3524				
Status: Closed				
RICHARD CORIELL & CO	***1926 LONG HILL RD***	***NNE 0 - 1/8 (0.062 mi.)***	***52***	***152***
Site ID: 44125				
Status: Closed				
KARG'S FUEL OIL CO	1901 1903 LONG HILL	NE 0 - 1/8 (0.062 mi.)	F53	153

Site ID: 45323 Status: Closed				
30 MIDVALE AVE Site ID: 368489 Status: Closed	30 MIDVALE AVE	ESE 1/8 - 1/4 (0.152 mi.)	58	156
25 SUNSET PLACE Site ID: 118220 Status: Closed	***25 SUNSET PL***	***ENE 1/8 - 1/4 (0.201 mi.)***	***59***	***157***
142 CHURCH ROAD Site ID: 72330 Status: Closed	***142 CHURCH RD***	***N 1/8 - 1/4 (0.247 mi.)***	***61***	***159***
182 NORTHFIELD ROAD Site ID: 87369 Status: Closed	***182 NORTHFIELD RD***	***ESE 1/4 - 1/2 (0.279 mi.)***	***62***	***160***
45 NORTHFIELD ROAD Site ID: 214073 Status: Closed	***45 NORTHFIELD RD***	***ENE 1/4 - 1/2 (0.291 mi.)***	***H64***	***161***
37 NORTHFIELD ROAD Site ID: 124711 Status: Closed	***37 NORTHFIELD RD***	***ENE 1/4 - 1/2 (0.296 mi.)***	***H65***	***162***
169 NORTHFIELD ROAD Site ID: 69780 Status: Closed	***169 NORTHFIELD RD***	***ESE 1/4 - 1/2 (0.312 mi.)***	***66***	***164***
59 CROSS HILL ROAD Site ID: 406826 Status: Closed	***59 CROSS HILL RD***	***NNE 1/4 - 1/2 (0.332 mi.)***	***G67***	***165***
95 HIGHLAND AVENUE Site ID: 83130 Status: Closed	***95 HIGHLAND AVE***	***W 1/4 - 1/2 (0.333 mi.)***	***I69***	***168***
96 CROSS HILL ROAD Site ID: 257887 Status: Closed	***96 CROSS HILL RD***	***N 1/4 - 1/2 (0.343 mi.)***	***70***	***169***
46 CHURCH ROAD Site ID: 447414 Status: Closed	***46 CHURCH RD***	***NNE 1/4 - 1/2 (0.348 mi.)***	***J71***	***170***
90 HIGHLAND AVENUE Site ID: 126589 Status: Closed	***90 HIGHLAND AVE***	***W 1/4 - 1/2 (0.369 mi.)***	***I74***	***173***
15 CROSS HILL ROAD Site ID: 222079 Status: Closed	***15 CROSS HILL RD***	***NNE 1/4 - 1/2 (0.380 mi.)***	***J75***	***177***
86 HIGHLAND AVENUE Site ID: 205899 Status: Closed	***86 HIGHLAND AVE***	***W 1/4 - 1/2 (0.392 mi.)***	***L76***	***177***
35 BASKING RIDGE ROA Site ID: 555203 Status: Closed	***35 BASKING RIDGE RD***	***NNE 1/4 - 1/2 (0.395 mi.)***	***J78***	***178***
63 BASKING RIDGE ROA Site ID: 220502	***63 BASKING RIDGE RD***	***NNE 1/4 - 1/2 (0.395 mi.)***	***79***	***179***

Status: Closed				
63 OVERLOOK AVENUE Site ID: 158370 Status: Closed	63 OVERLOOK AVE	W 1/4 - 1/2 (0.399 mi.)	N81	180
36 OVERLOOK AVENUE Site ID: 70061 Status: Closed	***36 OVERLOOK AVE***	***W 1/4 - 1/2 (0.401 mi.)***	***K84***	***181***
ALL SAINT CHURCH NUR Site ID: 88315 Status: Closed	***15 BASKING RIDGE RD***	***NE 1/4 - 1/2 (0.412 mi.)***	***M85***	***182***
Not reported Site ID: 531030 Status: Closed	***79 HIGHLAND AVE***	***W 1/4 - 1/2 (0.420 mi.)***	***L86***	***183***
179 OAKS ROAD Site ID: 226258 Status: Closed	***179 OAKS RD***	***NNW 1/4 - 1/2 (0.426 mi.)***	***87***	***185***
117 BASKING RIDGE RO Site ID: 72980 Status: Closed	***117 BASKING RIDGE RD***	***N 1/4 - 1/2 (0.429 mi.)***	***88***	***185***
56 OVERLOOK AVENUE Site ID: 158288 Status: Closed	***56 OVERLOOK AVE***	***W 1/4 - 1/2 (0.429 mi.)***	***O90***	***189***
1948 VALLEY ROAD Site ID: 87545 Status: Closed	***1948 VALLEY RD***	***S 1/4 - 1/2 (0.429 mi.)***	***91***	***189***
75 HIGHLAND AVENUE Site ID: 222658 Status: Closed	***75 HIGHLAND AVE***	***W 1/4 - 1/2 (0.447 mi.)***	***92***	***190***
162 BASKING RIDGE RO Site ID: 94618 Status: Closed	***162 BASKING RIDGE RD***	***N 1/4 - 1/2 (0.467 mi.)***	***93***	***191***
175 BASKING RIDGE RO Site ID: 72096 Status: Closed	***175 BASKING RIDGE RD***	***N 1/4 - 1/2 (0.471 mi.)***	***P94***	***192***
68 HAAS ROAD Site ID: 194376 Status: Closed	***68 HAAS RD***	***WSW 1/4 - 1/2 (0.485 mi.)***	***Q96***	***195***
10 EAST RAYBURN ROAD Site ID: 223803 Status: Closed	***10 E RAYBURN RD***	***N 1/4 - 1/2 (0.499 mi.)***	***P97***	***196***
58 HAAS ROAD Site ID: 400380 Status: Closed	***58 HAAS RD***	***WSW 1/2 - 1 (0.534 mi.)***	***Q100***	***197***
9 WEST RAYBURN ROAD Site ID: 341959 Status: Closed	***9 W RAYBURN RD***	***NNW 1/2 - 1 (0.538 mi.)***	***R102***	***200***
64 WEST RAYBURN ROAD Site ID: 367899 Status: Closed	64 W RAYBURN RD	N 1/2 - 1 (0.604 mi.)	104	205
56 EAST RAYBURN ROAD	***56 E RAYBURN RD***	***N 1/2 - 1 (0.605 mi.)***	***S105***	***206***

Site ID: 88561 Status: Closed				
59 EAST RAYBURN ROAD Site ID: 470907 Status: Closed	***59 E RAYBURN RD***	***N 1/2 - 1 (0.615 mi.)***	***S107***	***208***
71 EAST RAYBURN ROAD Site ID: 412047 Status: Closed	***71 E RAYBURN RD***	***N 1/2 - 1 (0.643 mi.)***	***S109***	***209***
3060 VALLEY ROAD Site ID: 82247 Status: Closed	***3060 VALLEY RD***	***SW 1/2 - 1 (0.670 mi.)***	***110***	***212***
ALAN E ZIMMER CHABAD Site ID: 361627 Status: Closed	3048 VALLEY RD	SW 1/2 - 1 (0.673 mi.)	112	215
1603 LONG HILL RD Site ID: 67953 Status: Closed	1603 LONG HILL RD	ENE 1/2 - 1 (0.685 mi.)	113	216
ESTATE OF SHAW Site ID: 585978 Status: Closed	***490 S MAPLE AVE***	***NNW 1/2 - 1 (0.723 mi.)***	***116***	***219***
Not reported Site ID: 463325 Status: Closed	***47 CREST DR***	***SSW 1/2 - 1 (0.730 mi.)***	***T117***	***222***
3066 VALLEY RD Site ID: 179032 Status: Closed	***3066 VALLEY RD***	***SW 1/2 - 1 (0.736 mi.)***	***118***	***224***
53 CREST DRIVE Site ID: 123758 Status: Closed	***53 CREST DR***	***SSW 1/2 - 1 (0.750 mi.)***	***T119***	***229***
189 STONEHOUSE ROAD Site ID: 118229 Status: Closed	***189 STONEHOUSE RD***	***W 1/2 - 1 (0.752 mi.)***	***120***	***230***
1462 LONG HILL RD Site ID: 74719 Status: Closed	1462 LONG HILL RD	ENE 1/2 - 1 (0.771 mi.)	121	231
10 HAAS ROAD Site ID: 83141 Status: Closed	***10 HAAS RD***	***WSW 1/2 - 1 (0.782 mi.)***	***122***	***231***
57 DOGWOOD TERRACE Site ID: 471947 Status: Closed	***57 DOGWOOD TER***	***NE 1/2 - 1 (0.804 mi.)***	***124***	***233***
17 SUN ROAD Site ID: 82227 Status: Closed	***17 SUN RD***	***SSW 1/2 - 1 (0.879 mi.)***	***130***	***243***
HADLET & PODILCHUK Site ID: 432313 Status: Closed	***1576 VALLEY RD***	***ESE 1/2 - 1 (0.942 mi.)***	***W132***	***246***
1554 VALLEY ROAD Site ID: 74358	***1554 VALLEY RD***	***ESE 1/2 - 1 (0.986 mi.)***	***W133***	***249***

Status: Closed

Lower Elevation	Address	Direction / Distance	Map ID	Page
300 NORTH NORTHFIELD Site ID: 413636 Status: Closed	300 S NORTHFIELD RD	SE 1/2 - 1 (0.528 mi.)	98	196
HUGHES GLEN RESIDENC Site ID: 70652 Status: Closed	***59 HAAS RD***	***WSW 1/2 - 1 (0.536 mi.)***	***101***	***199***
59 ROLLING HILL DRIV Site ID: 400519 Status: Closed	***59 ROLLING HILL DR***	***S 1/2 - 1 (0.587 mi.)***	***103***	***203***
3027 VALLEY ROAD Site ID: 196354 Status: Closed	***3027 VALLEY RD***	***SSW 1/2 - 1 (0.610 mi.)***	***106***	***207***
19 CREST DRIVE Site ID: 199403 Status: Closed	***19 CREST DR***	***SSW 1/2 - 1 (0.635 mi.)***	***108***	***208***
27 HAAS ROAD Site ID: 568244 Status: Closed	***27 HAAS RD***	***WSW 1/2 - 1 (0.673 mi.)***	***111***	***213***
35 CREST DRIVE Site ID: 182969 Status: Closed	***35 CREST DR***	***SSW 1/2 - 1 (0.687 mi.)***	***114***	***216***
HOME OWNER ASSOCIATI Site ID: 73264 Status: Closed	42 RAINBOW DR	SSE 1/2 - 1 (0.691 mi.)	115	219
67 CREST DRIVE Site ID: 258463 Status: Active	***67 CREST DR***	***SSW 1/2 - 1 (0.801 mi.)***	***U123***	***232***
70 CREST DRIVE Site ID: 124940 Status: Closed	***70 CREST DR***	***SSW 1/2 - 1 (0.810 mi.)***	***U125***	***233***
214 OLD FORGE ROAD Site ID: 392694 Status: Closed	***214 OLD FORGE RD***	***NNE 1/2 - 1 (0.836 mi.)***	***126***	***236***
STONEHOUSE RD SEWAGE Site ID: 49119 Status: Closed	***STONEHOUSE RD***	***WSW 1/2 - 1 (0.837 mi.)***	***V127***	***239***
3137 VALLEY ROAD Site ID: 383132 Status: Closed	***3137 VALLEY RD***	***WSW 1/2 - 1 (0.846 mi.)***	***V128***	***240***
3129 VALLEY ROAD Site ID: 197583 Status: Active	***3129 VALLEY RD***	***WSW 1/2 - 1 (0.862 mi.)***	***129***	***240***
249 OLD FORGE ROAD Site ID: 73195 Status: Closed	***249 OLD FORGE RD***	***NNE 1/2 - 1 (0.928 mi.)***	***131***	***245***
283 OLD FORGE ROAD	***283 OLD FORGE RD***	***NNE 1/2 - 1 (0.994 mi.)***	***134***	***250***

Site ID: 358238
Status: Closed

NJ HWS RE-EVAL: The locations were removed from the Known Contaminated Sites list for a variety of reasons. Some of the sites were taken off the list because they were inactive, some were not assigned a case worker and some were no longer contaminated. Inspectors from the DEP are now undertaking a full re-evaluation of each of the locations statewide. That includes visual and environmental tests to see whether contamination still exists.

A review of the NJ HWS RE-EVAL list, as provided by EDR, and dated 09/20/2007 has revealed that there is 1 NJ HWS RE-EVAL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
9 RAYBURN RD W Facility Status: No Confirmed Contamination Data. No Action Required.	9 RAYBURN RD W	NNW 1/2 - 1 (0.532 mi.)	R99	197

State and tribal leaking storage tank lists

NJ HIST LUST: This listing is no longer updated or maintained by the DEP.

A review of the NJ HIST LUST list, as provided by EDR, and dated 09/17/2002 has revealed that there are 4 NJ HIST LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
A.D.RUNYON CO Case Id: 98-11-30-1136-07 Facility Status: Assigned to a Program	45 DIVISION AVENUE	ENE 0 - 1/8 (0.016 mi.)	C40	106
AD RUNYON CO Case Id: 95-03-21-1148 Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern	***45 DIVISION AVE***	***ENE 0 - 1/8 (0.016 mi.)***	***C41***	***106***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MILLINGTON R BARRETT Case Id: 94-11-08-1245 Facility Status: Case Awaiting Assignment	33 STONEHOUSE RD	S 0 - 1/8 (0.015 mi.)	D36	101
BARRETT COMPANY Case Id: 94-11-07-1524 Facility Status: Case Awaiting Assignment	***33 STONEHOUSE RD***	***S 0 - 1/8 (0.015 mi.)***	***D38***	***103***

State and tribal registered storage tank lists

NJ UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Protection & Energy's UST Data.

A review of the NJ UST list, as provided by EDR, and dated 10/17/2018 has revealed that there are 10

NJ UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NEW JERSEY BELL TELE Facility Id: 008074 Tank Status: Removed	59 DIVISION AVE	E 0 - 1/8 (0.013 mi.)	C35	100
VERIZON VACANT LAND Facility Id: 299520 Tank Status: Removed	53 DIVISION AVE	E 0 - 1/8 (0.016 mi.)	C39	105
AD RUNYON CO Facility Id: 004636 Tank Status: Removed	***45 DIVISION AVE***	***ENE 0 - 1/8 (0.016 mi.)***	***C41***	***106***
MILLINGTON QUARRY IN Facility Id: 005602 Tank Status: Removed	STONEHOUE RD	SSE 0 - 1/8 (0.023 mi.)	D42	112
85A DIVISION AVENUE Facility Id: 207472 Tank Status: Removed	85A DIVISION AVE	ESE 0 - 1/8 (0.027 mi.)	E45	118
TRIMMERT HAAS Facility Id: 027171 Tank Status: Removed	1905 LONG HILL RD	NE 0 - 1/8 (0.043 mi.)	C49	129
RICHARD CORIELL & CO Facility Id: 008884 Tank Status: Removed	***1926 LONG HILL RD***	***NNE 0 - 1/8 (0.062 mi.)***	***52***	***152***
KARG'S FUEL OIL CO Facility Id: 031960 Tank Status: Other	1903 LONG HILL RD	NE 0 - 1/8 (0.062 mi.)	F55	154
KARG'S FUEL OIL CO Facility Id: 000764 Tank Status: In-use	1903 LONG HILL RD	NE 0 - 1/8 (0.062 mi.)	F56	155

Lower Elevation	Address	Direction / Distance	Map ID	Page
THE BARRETT CO Facility Id: 030455 Tank Status: Removed	33 STONEHOUSE RD	S 0 - 1/8 (0.015 mi.)	D37	101

State and tribal institutional control / engineering control registries

NJ INST CONTROL: Sites where engineering and/or institutional controls remain in place as part of a remedial action to address soil and/or groundwater contamination. These restrictions ensure protection of human health and the environment as long as they are maintained.

A review of the NJ INST CONTROL list, as provided by EDR, and dated 08/07/2018 has revealed that there is 1 NJ INST CONTROL site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AD RUNYON CO Facility Id: 3524	***45 DIVISION AVE***	***ENE 0 - 1/8 (0.016 mi.)***	***C41***	***106***

EXECUTIVE SUMMARY

State and tribal voluntary cleanup sites

NJ VCP: Through the VCP, responsible parties, developers, local officials, or individuals may work with the department to remediate non-priority contaminated sites that pose no immediate threat to human health or the environment.

A review of the NJ VCP list, as provided by EDR, and dated 01/12/2018 has revealed that there are 26 NJ VCP sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KARG FUEL OIL INCORP Incident Number: 97-09-15-1337-53	1903 LONG HILL RD	NE 0 - 1/8 (0.062 mi.)	F54	154
25 SUNSET PLACE Incident Number: 02-04-04-1135-11	***25 SUNSET PL***	***ENE 1/8 - 1/4 (0.201 mi.)***	***59***	***157***
84 CHURCH ROAD Incident Number: 01-08-24-1542-05	84 CHURCH RD	NNE 1/4 - 1/2 (0.284 mi.)	G63	160
45 NORTHFIELD ROAD Incident Number: 05-11-18-0839-27	***45 NORTHFIELD RD***	***ENE 1/4 - 1/2 (0.291 mi.)***	***H64***	***161***
37 NORTHFIELD ROAD Incident Number: 02-03-08-1140-50	***37 NORTHFIELD RD***	***ENE 1/4 - 1/2 (0.296 mi.)***	***H65***	***162***
169 NORTHFIELD ROAD Incident Number: 97-02-14-1221-08	***169 NORTHFIELD RD***	***ESE 1/4 - 1/2 (0.312 mi.)***	***66***	***164***
95 HIGHLAND AVENUE Incident Number: 97-06-17-1147-59	95 HIGHLAND AVE	W 1/4 - 1/2 (0.333 mi.)	I68	168
96 CROSS HILL ROAD Incident Number: 06-03-13-1424-01	***96 CROSS HILL RD***	***N 1/4 - 1/2 (0.343 mi.)***	***70***	***169***
15 TALL TIMBER DRIVE Incident Number: 05-04-15-1340-09	15 TALL TIMBER DR	NW 1/4 - 1/2 (0.350 mi.)	72	173
41 OVERLOOK AVENUE Incident Number: 06-11-06-1324-25	41 OVERLOOK AVE	W 1/4 - 1/2 (0.360 mi.)	K73	173
90 HIGHLAND AVENUE Incident Number: 02-10-31-0808-04	***90 HIGHLAND AVE***	***W 1/4 - 1/2 (0.369 mi.)***	***I74***	***173***
15 CROSS HILL ROAD Incident Number: 06-01-19-0942-51	***15 CROSS HILL RD***	***NNE 1/4 - 1/2 (0.380 mi.)***	***J75***	***177***
86 HIGHLAND AVENUE Incident Number: 05-05-05-1602-59	86 HIGHLAND AVE	W 1/4 - 1/2 (0.392 mi.)	L77	178
63 BASKING RIDGE ROA Incident Number: 06-02-09-1317-38	***63 BASKING RIDGE RD***	***NNE 1/4 - 1/2 (0.395 mi.)***	***79***	***179***
ALL SAINTS CHURCH NU Incident Number: 01-03-16-1053-46	15 BASKING RIDGE RD	NE 1/4 - 1/2 (0.396 mi.)	M80	180
63 OVERLOOK AVENUE Incident Number: 05-05-13-1125-26	63 OVERLOOK AVE	W 1/4 - 1/2 (0.399 mi.)	N82	181
36 OVERLOOK AVENUE Incident Number: 97-06-19-1309-37	36 OVERLOOK AVE	W 1/4 - 1/2 (0.401 mi.)	K83	181
179 OAKS ROAD Incident Number: 06-04-28-1043-35	***179 OAKS RD***	***NNW 1/4 - 1/2 (0.426 mi.)***	***87***	***185***
117 BASKING RIDGE RO	***117 BASKING RIDGE RD***	***N 1/4 - 1/2 (0.429 mi.)***	***88***	***185***

Incident Number: 96-06-24-1610-27				
56 OVERLOOK AVENUE Incident Number: 03-06-23-1310-08	***56 OVERLOOK AVE***	***W 1/4 - 1/2 (0.429 mi.)***	***O89***	***186***
1948 VALLEY ROAD Incident Number: 00-12-11-1405-24	***1948 VALLEY RD***	***S 1/4 - 1/2 (0.429 mi.)***	***91***	***189***
75 HIGHLAND AVENUE Incident Number: 06-04-26-1037-00	***75 HIGHLAND AVE***	***W 1/4 - 1/2 (0.447 mi.)***	***92***	***190***
162 BASKING RIDGE RO Incident Number: 01-12-28-1139-04	***162 BASKING RIDGE RD***	***N 1/4 - 1/2 (0.467 mi.)***	***93***	***191***
68 HAAS ROAD Incident Number: 05-04-29-1038-56	***68 HAAS RD***	***WSW 1/4 - 1/2 (0.485 mi.)***	***Q95***	***193***
10 EAST RAYBURN ROAD Incident Number: 06-04-10-1147-04	***10 E RAYBURN RD***	***N 1/4 - 1/2 (0.499 mi.)***	***P97***	***196***

Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
126 DIVISION AVENUE Incident Number: 99-10-08-1315-47	***126 DIVISION AVE***	***SSE 1/8 - 1/4 (0.136 mi.)***	***57***	***156***

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/01/2018 has revealed that there are 4 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
MILLINGTON CENTRAL O EPA ID:: NJD980649008	5 DIVISION AVE	ENE 0 - 1/8 (0.013 mi.)	C34	98
PALUMBO ASSOCIATES I EPA ID:: NJD098258551	***85 DIVISION AVE***	***ESE 0 - 1/8 (0.027 mi.)***	***E43***	***115***
LONG HILL AUTO SERVI EPA ID:: NJD986620003	1905 LONGHILL RD	NE 0 - 1/8 (0.043 mi.)	C50	130
MILLINGTON AUTO BODY EPA ID:: NJD101251676	***1905 LONG HILL RD***	***NE 0 - 1/8 (0.043 mi.)***	***C51***	***132***

FUDS: The Listing includes locations of Formerly Used Defense Sites Properties where the US Army Corps Of Engineers is actively working or will take necessary cleanup actions.

A review of the FUDS list, as provided by EDR, and dated 01/31/2015 has revealed that there is 1 FUDS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NAVAL IND RESRV PLAN Federal Facility ID:: NJ9799F9597 INST ID:: 54886		S 1/8 - 1/4 (0.230 mi.)	60	158

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 12/12/2018 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP EPA ID:: NJD980654149	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B33***	***72***

PRP: A listing of verified Potentially Responsible Parties

A review of the PRP list, as provided by EDR, and dated 08/13/2018 has revealed that there is 1 PRP site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B33***	***72***

ICIS: The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

A review of the ICIS list, as provided by EDR, and dated 11/18/2016 has revealed that there is 1 ICIS site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP FRS ID:: 110009300381	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B33***	***72***

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 09/30/2018 has revealed that there is 1 CONSENT site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B33***	***72***

EXECUTIVE SUMMARY

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 11/15/2018 has revealed that there is 1 FINDS site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B32***	***71***
Registry ID:: 110009300381				

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 09/02/2018 has revealed that there is 1 ECHO site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ASBESTOS DUMP	***TIFA SQUARE***	***0 - 1/8 (0.000 mi.)***	***B32***	***71***
Registry ID: 110009300381				

NJ MANIFEST: Hazardous waste manifest information.

A review of the NJ MANIFEST list, as provided by EDR, and dated 12/31/2017 has revealed that there are 2 NJ MANIFEST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MILLINGTON AUTO BODY	1905 LONG HILL RD	NE 0 - 1/8 (0.043 mi.)	C48	120
EPA Id: NJX000331363				
MILLINGTON AUTO BODY	***1905 LONG HILL RD***	***NE 0 - 1/8 (0.043 mi.)***	***C51***	***132***
EPA Id: NJD101251676				

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, and dated 01/01/2019 has revealed that there is 1 NY MANIFEST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PALUMBO ASSOCIATES I	***85 DIVISION AVE***	***ESE 0 - 1/8 (0.027 mi.)***	***E43***	***115***
EPA ID: NJD098258551				

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
M & R CITGO STATION	85 DIVISION AVE	ESE 0 - 1/8 (0.027 mi.)	E44	118
LONG HILL AUTO SERVI	1905 LONG HILL RD	NE 0 - 1/8 (0.043 mi.)	C47	119

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

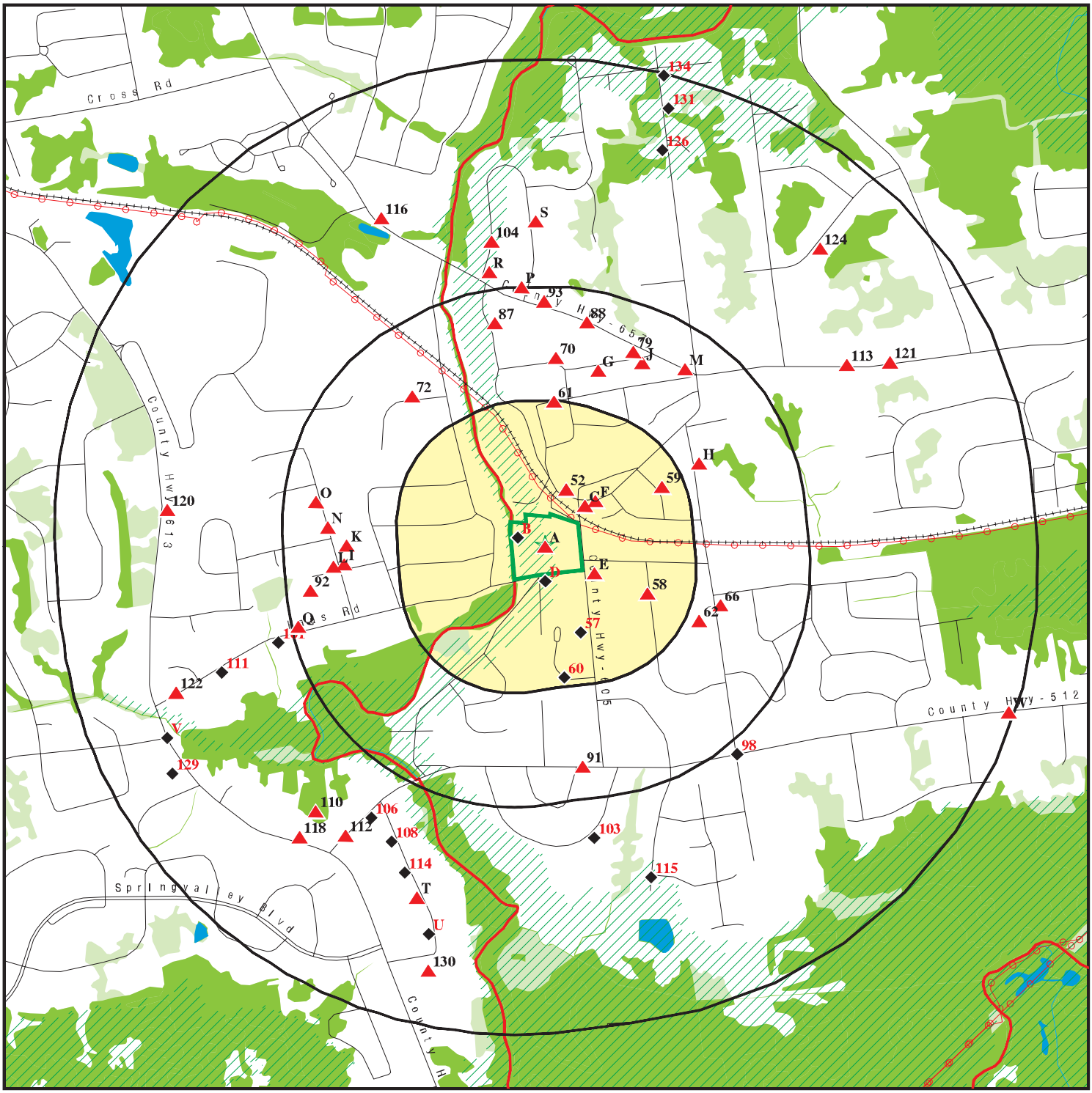
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAMICAO ENTERPRISES	1911 LONG HILL RD	NE 0 - 1/8 (0.041 mi.)	C46	119

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
PHILIP M BARDY ET AL TRACT	NJ SHWS, NJ VCP
1926 & 1936 LONG HILL ROAD (COMMER	NJ VCP

OVERVIEW MAP - 5565949.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

County Boundary

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 50 Division Avenue	CLIENT: EWMA, LLC
ADDRESS: 50 Division Avenue Millington NJ 07946	CONTACT: Frank Rooney
LAT/LONG: 40.672224 / 74.524422	INQUIRY #: 5565949.2s DATE: February 19, 2019 7:49 pm

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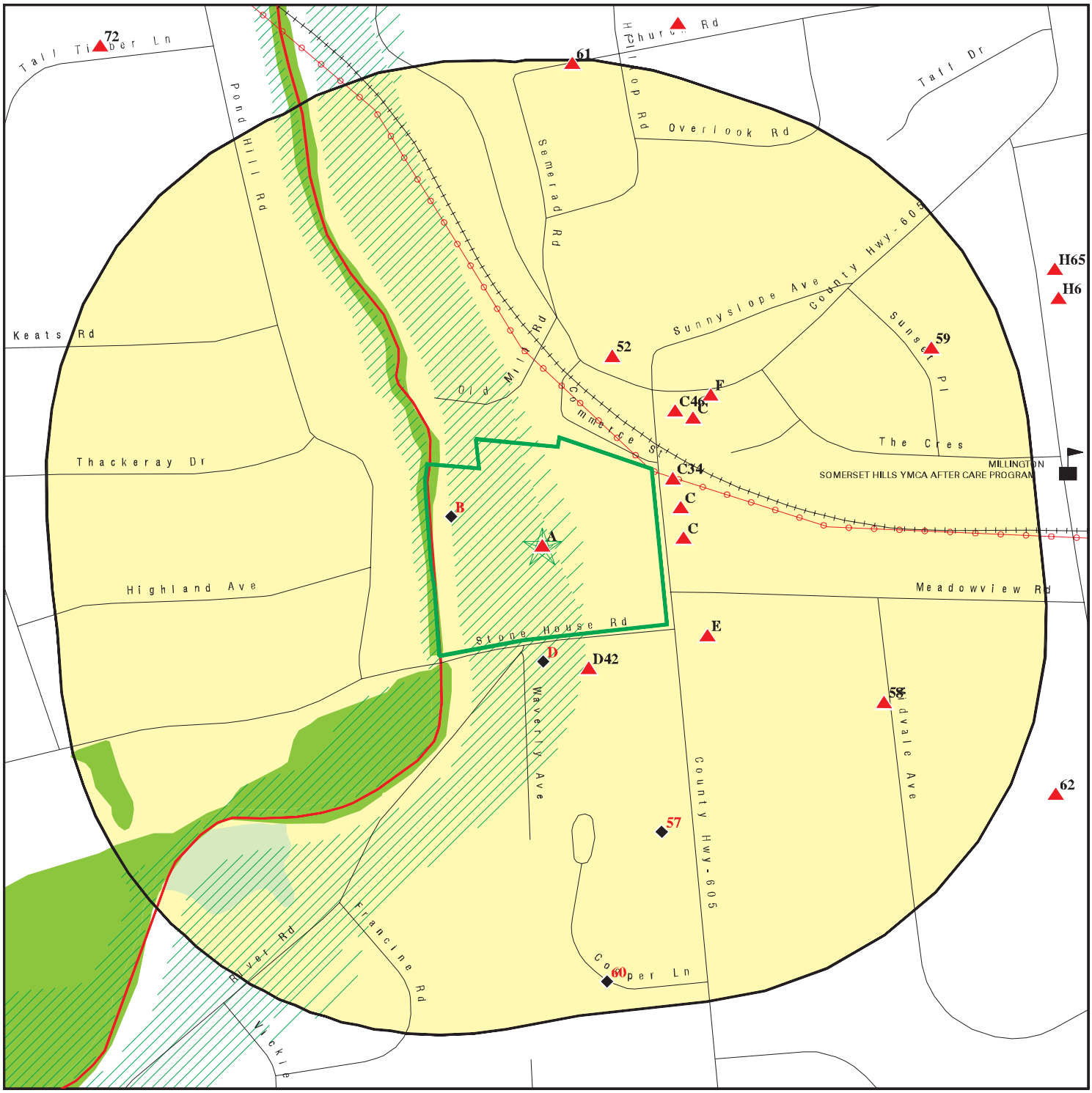
DETAIL MAP - 5565949.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 50 Division Avenue	CLIENT: EWMA, LLC
ADDRESS: 50 Division Avenue Millington NJ 07946	CONTACT: Frank Rooney
LAT/LONG: 40.672224 / 74.524422	INQUIRY #: 5565949.2s DATE: February 19, 2019 7:51 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		1	0	0	0	NR	1
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		1	0	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		1	0	0	NR	NR	1
US INST CONTROL	0.500		1	0	0	NR	NR	1
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
NJ SHWS	1.000		3	3	26	36	NR	68
NJ HWS RE-EVAL	1.000		0	0	0	1	NR	1
NJ HIST HWS	0.001		0	NR	NR	NR	NR	0
State and tribal landfill and/or solid waste disposal site lists								
NJ SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
NJ LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NJ HIST LUST	0.500	1	4	0	0	NR	NR	5
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
NJ UST	0.250	1	10	0	NR	NR	NR	11
NJ MAJOR FACILITIES	0.500		0	0	0	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
NJ ENG CONTROLS	0.500	1	0	0	0	NR	NR	1
NJ INST CONTROL	0.500		1	0	0	NR	NR	1
State and tribal voluntary cleanup sites								
NJ VCP	0.500		1	2	23	NR	NR	26
INDIAN VCP	0.500		0	0	0	NR	NR	0
NJ PF	1.000		0	0	0	0	NR	0
State and tribal Brownfields sites								
NJ BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
NJ HIST LF	0.500		0	0	0	NR	NR	0
NJ SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
NJ NJEMS	0.001	1	0	NR	NR	NR	NR	1
US HIST CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
NJ LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
NJ SPILLS	0.001	3	0	NR	NR	NR	NR	3
NJ Release	0.001	4	0	NR	NR	NR	NR	4
NJ SPILLS 90	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NJ SPILLS 80	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250	3	4	0	NR	NR	NR	7
FUDS	1.000		0	1	0	0	NR	1
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001	2	0	NR	NR	NR	NR	2
ROD	1.000		1	0	0	0	NR	1
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		1	NR	NR	NR	NR	1
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001	3	1	NR	NR	NR	NR	4
FTTS	0.001	1	0	NR	NR	NR	NR	1
MLTS	0.001	1	0	NR	NR	NR	NR	1
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001	1	0	NR	NR	NR	NR	1
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		1	0	0	0	NR	1
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001	13	1	NR	NR	NR	NR	14
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001	3	1	NR	NR	NR	NR	4
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
NJ AIRS	0.001		0	NR	NR	NR	NR	0
NJ CHROME	0.500		0	0	0	NR	NR	0
NJ COAL ASH	0.500		0	0	0	NR	NR	0
NJ DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NJ Financial Assurance	0.001		0	NR	NR	NR	NR	0
NJ GW CONTAM AREAS	0.001		0	NR	NR	NR	NR	0
NJ HIST MAJOR FACILITIES	0.500		0	0	0	NR	NR	0
NJ ISRA	0.500	1	0	0	0	NR	NR	1
NJ MANIFEST	0.250	1	2	0	NR	NR	NR	3
NY MANIFEST	0.250		1	0	NR	NR	NR	1
NJ NPDES	0.001	1	0	NR	NR	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NJ UIC	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
NJ RGA HWS	0.001		0	NR	NR	NR	NR	0
NJ RGA LF	0.001		0	NR	NR	NR	NR	0
NJ RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		41	39	6	49	37	0	172

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **GELLNER & CO INC** **RCRA NonGen / NLR** **1014925612**
Target **50 DIVISION AVE** **NJN986627792**
Property **LONG HILL TWP, NJ 07946**

Site 1 of 31 in cluster A

Actual:
243 ft.

RCRA NonGen / NLR:

Date form received by agency:	05/02/2012
Facility name:	GELLNER & CO INC
Facility address:	50 DIVISION AVE LONG HILL TWP, NJ 07946
EPA ID:	NJN986627792
Mailing address:	PO BOX 127 MORRIS TWP, NJ 07933
Contact:	OTTO GELLNER
Contact address:	50 DIVISION AVE LONG HILL TWP, NJ 07946
Contact country:	US
Contact telephone:	908-647-5208
Contact email:	Not reported
EPA Region:	02
Land type:	Private
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	GELLNER & CO INC
Owner/operator address:	50 DIVISION AVE LONG HILL TWP, NJ 07946
Owner/operator country:	US
Owner/operator telephone:	908-647-5208
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	01/20/2012
Owner/Op end date:	Not reported

Owner/operator name:	GELLNER & CO INC
Owner/operator address:	50 DIVISION AVE LONG HILL TWP, NJ 07946
Owner/operator country:	US
Owner/operator telephone:	908-647-5208
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/20/2012
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No

GELLNER & CO INC (Continued) **1014925612**

Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Historical Generators:
Date form received by agency: 01/20/2012
Site name: GELLNER & CO INC
Classification: Not a generator, verified

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 12/20/2011
Date achieved compliance: 01/21/2012
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/18/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 2000
Paid penalty amount: 2000

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/20/2011
Date achieved compliance: 01/21/2012
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/20/2012

GELLNER & CO INC (Continued) **1014925612**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/20/2011
Date achieved compliance: 03/06/2012
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 07/23/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 5000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 12/20/2011
Date achieved compliance: 03/06/2012
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/20/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 12/20/2011
Date achieved compliance: 01/21/2012
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 07/23/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 5000
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/20/2011
Date achieved compliance: 03/06/2012
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/18/2013
Enf. disposition status: Not reported

GELLNER & CO INC (Continued) **1014925612**

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 2000
Paid penalty amount: 2000

Evaluation Action Summary:

Evaluation date: 03/06/2012
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/06/2012
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/20/2012
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/20/2011
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/20/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 01/21/2012
Evaluation lead agency: State

Evaluation date: 12/20/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/21/2012
Evaluation lead agency: State

Evaluation date: 12/20/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/06/2012
Evaluation lead agency: State

Evaluation date: 12/20/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 03/06/2012
Evaluation lead agency: State

A2 **IMPERIAL METAL PRODUCTS** **FINDS** **1010156182**
Target **50 DIVISION AVE** **N/A**
Property **MILLINGTON, NJ 07946**

Site 2 of 31 in cluster A

Actual: FINDS:
243 ft.

Registry ID: 110029641332

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A3 **GATOR LURES CORP** **FINDS** **1012290422**
Target **50 DIVISION AVE** **N/A**
Property **MILLINGTON, NJ 07946**

Site 3 of 31 in cluster A

Actual: FINDS:
243 ft.

Registry ID: 110040257245

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A4 **TIFA LTD** **NJ Release** **S117821237**
Target **50 DIVISION ST** **N/A**
Property **MILLINGTON, NJ**

Site 4 of 31 in cluster A

Actual: NJ Release:
243 ft.

Facility Type:	Not reported
Facility Phone:	Not reported
Incident Date:	12/05/1980
Incident Time:	Not reported
Trenton Dispatch Log Number:	Not reported
Case Number:	Not reported
Date Received:	Not reported
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Not reported
Incident Location:	Not reported
Location:	Not reported
Other Location:	Not reported

TIFA LTD (Continued) **S117821237**

Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	U; BLACK LIQUID
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	Not reported
Public Exposure:	Not reported
Facility Evacuation:	Not reported
Police at Scene:	Not reported
Firemen at Scene:	Not reported
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	Not reported
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported

TIFA LTD (Continued) **S117821237**

Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	Not reported
Reporter Type:	Not reported
Reporter Name:	Not reported
Reporter Title:	Not reported
Reporter Org:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

A5 **SPHINX ELECTRO-PLATING CORP.** **FINDS 1015827376**
Target **50 DIVISION AVE** **ECHO N/A**
Property **MILLINGTON, NJ 07946**

Site 5 of 31 in cluster A

Actual: 243 ft.

FINDS:

Registry ID: 110007973318

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

SPHINX ELECTRO-PLATING CORP. (Continued) **1015827376**

ECHO:
Envid: 1015827376
Registry ID: 110007973318
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110007973318

A6 **TIFA LTD** **NJ SPILLS** **S117830357**
Target **50 DIVISION ST** **N/A**
Property **MILLINGTON, NJ**

Site 6 of 31 in cluster A

Actual:
243 ft.

NJ SPILL:

Trenton Dispatch Log Number:	Not reported
Case Number:	Not reported
Notify Type:	Not reported
Date Received:	Not reported
Location:	Not reported
Other Location:	Not reported
Incident Date:	12/05/1980
Incident Time:	Not reported
A310 Letter:	Not reported
Ref. Code:	Not reported
COMU:	Not reported
CAS Number:	Not reported
Hazardous:	Not reported
Incident Location:	Not reported
Facility Type:	Not reported
Facility Phone:	Not reported
Substance(s):	U; BLACK LIQUID
Substance Type:	Not reported
Substance Identity:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
Amnt Released:	Not reported
Release VE:	Not reported
Contained:	Not reported
Release Type:	Not reported
Incident Desc:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Phone:	Not reported
Injuries:	Not reported
Public Exposure:	Not reported
Road Closed:	Not reported
Facility Evacuation:	Not reported
Receiving Water:	Not reported
Public Evacuation:	Not reported
Police at Scene:	Not reported
Firemen at Scene:	Not reported

TIFA LTD (Continued) **S117830357**

Contamination of:	Not reported
Nature of Incident:	Not reported
Wind Direction/Speed:	Not reported
Assistance Requested:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Operator:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Phone:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Telphone:	Not reported
Responsible Party Street:	Not reported
Responsible Party Municipality:	Not reported
Responsible Party State:	Not reported
Responsible Party Zip:	Not reported
Responsible City,St,Zip:	Not reported
Responsible Party County:	Not reported
Local Municipality:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Phone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Phone:	Not reported
Incident Date:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Update:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Reporter Name:	Not reported
Reporter Type:	Not reported
Rep Received Date:	Not reported
Reporter Title:	Not reported
Reporter Orgzn:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Type:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported

TIFA LTD (Continued) **S117830357**

DEP Requested: Not reported
Confidential: Not reported

A7 Target Property	**TIFA LTD 50 DIVISION AVE MILLINGTON, NJ 07946**	**ICIS FINDS ECHO**	**1016671763 N/A**

Site 7 of 31 in cluster A

Actual: 243 ft.

ICIS:

Enforcement Action ID:	02-1997-0364
FRS ID:	110004179059
Action Name:	TIFA, LIMITED
Facility Name:	TIFA LTD
Facility Address:	50 DIVISION AVE MILLINGTON, NJ 079461313
Enforcement Action Type:	FIFRA 14A Action For Penalty
Facility County:	MORRIS
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	14A
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	40.673065
Longitude in Decimal Degrees:	-74.522974
Permit Type Desc:	Not reported
Program System Acronym:	22168
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

TIFA LTD (Continued) **1016671763**

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP

TIFA LTD (Continued) **1016671763**

Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE

TIFA LTD (Continued) **1016671763**

Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N

TIFA LTD (Continued) **1016671763**

Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No

TIFA LTD (Continued) **1016671763**

NAIC Code:	Not reported
SIC Code:	Not reported
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

FINDS:

Registry ID: 110004179059

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA’s programs. The vision for ICIS is to

TIFA LTD (Continued) **1016671763**

replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

SSTS (Section Seven Tracking System) evolved from the FIFRA and TSCA Enforcement System (FATES). SSTS tracks the registration of all pesticide-producing establishments and tracks annually the types and amounts of pesticides, active ingredients, and related devices that are produced, sold, or distributed each year.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016671763
Registry ID: 110004179059
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004179059

A8 **LUX DIGITAL CORP** **FINDS** **1010224002**
Target Property **50 DIVISION AVE** **N/A**
MILLINGTON, NJ 07946

Site 8 of 31 in cluster A

Actual: 243 ft.

FINDS:

Registry ID: 110029405454

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A9 **TIFA LIMITED** **NJ HIST LUST** **U002156146**
Target Property **50 DIVISION AVE** **NJ UST** **N/A**
LONG HILL TWP, NJ 07946 **NJ Release**
NJ ISRA
Site 9 of 31 in cluster A **NJ NPDES**

Actual: 243 ft.

LUST HIST:
Case ID: 93-01-07-1125
Lead Program Assigned: Bureau of Underground Storage Tanks
Facility Status: **Site Issued Letter of No Further Action for Area(s) Of Concern**
UST ID: 0240699

TIFA LIMITED (Continued) **U002156146**

TMS Number:	C92-3911
Remedial Level:	Site has more than 1 area of concern or more than 1 media of concern.
Case Manager:	Linda Fisher
Facility Phone:	(609) 633-1473
No Further Action:	11/28/1994 0:00:00
RAW Approved:	Not reported
CEA:	Not reported
Date CEA Lifted:	Not reported
Dead Notice:	Not reported

UST:

Facility ID:	024069

Contact:

Owner Name:	Not Identified Not Identified
Organization:	Not Identified
Contact Type(UST Reg):	Facility Operator
Contact Address (UST Reg):	Not reported
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Not reported

Owner Name:	ARNOLD LIVINGSTON
Organization:	TIFA LIMITED
Contact Type(UST Reg):	Tank Owner
Contact Address (UST Reg):	50 DIVISION AVE
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Millington, NJ 07946

Tanks:

Tank Id:	TANK-1
Tank Number:	P1
Tank Status:	**Abandoned in Place**
Tank Status Date:	02/01/1993
Install Date:	01/01/1951
Tank Contents:	Heating Oil (No. 6)
Tank Size:	30000
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-2
Tank Number:	P2
Tank Status:	**Abandoned in Place**
Tank Status Date:	02/01/1993
Install Date:	01/01/1951
Tank Contents:	Heating Oil (No. 6)
Tank Size:	30000

TIFA LIMITED (Continued) **U002156146**

Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

NJ Release:

Facility Type:	Commercial
Facility Phone:	Not reported
Incident Date:	11/23/1993
Incident Time:	0930
Trenton Dispatch Log Number:	19811
Case Number:	93-11-23-1322-15
Date Received:	11/23/1993
Nature of Incident:	Citizen
Operator:	JIMS
Incident Type:	Not reported
Incident Location:	Not reported
Location:	Facility
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	ODORS
Substance Type:	Liquid
Substance Identity:	Known
CAS Number:	Not reported
A310 Letter:	No
TCPA Chemical:	No
Hazrds Material:	No
COMU:	1430
Ref. Code:	004
Amt Released:	UNKNOWN
Contained:	No
Release Type:	Continuous
Release VE:	Not reported
Injuries:	No
Public Exposure:	Yes
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Air
Receiving Water:	Not reported
Status at Spill:	STRONG ODORS OF CHEMICALS INSIDE BUILDING FROM FACILITY BELOW
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported

TIFA LIMITED (Continued) **U002156146**

Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Yes
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Odors
Incident Name:	Not reported
Incident Referred To:	OEP-AIR
Incident Region:	Northern
Incident Telephone:	Faxed,Mailed
Incident Date:	11/23/1993
Incident time:	Not reported
Incident ITM:	B
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	Not reported
Reporter Type:	Not reported
Reporter Name:	Not reported
Reporter Title:	Not reported
Reporter Org:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Known
Responsible Party Name:	TIFA LIMITED
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	50 DIVISION AVE
Responsible Party County:	PASSAIC
Responsible Party City,St,Zip:	MILLINGTON, NJ
Memo. Of Understanding:	Not reported

TIFA LIMITED (Continued) **U002156146**

Drill/trng Exercise:	Not reported
Hazardous:	Not reported
Facility Type:	Industrial
Facility Phone:	Not reported
Incident Date:	11/23/1993
Incident Time:	ONGO
Trenton Dispatch Log Number:	19814
Case Number:	93-11-23-1415-23
Date Received:	11/23/1993
Nature of Incident:	Other
Operator:	JOYCE
Incident Type:	Not reported
Incident Location:	Not reported
Location:	Facility
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	ODORS
Substance Type:	Not reported
Substance Identity:	Known
CAS Number:	Not reported
A310 Letter:	No
TCPA Chemical:	No
Hazrds Material:	No
COMU:	1430
Ref. Code:	004
Amt Released:	UNK
Contained:	No
Release Type:	Intermittent
Release VE:	Not reported
Injuries:	No
Public Exposure:	Yes
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Air
Receiving Water:	Not reported
Status at Spill:	ODORS IN AREA SEEM TO BE COMING FROM PESTICIDE MANF.
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Yes
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported

TIFA LIMITED (Continued) **U002156146**

Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Odors
Incident Name:	Not reported
Incident Referred To:	OEP-AIR
Incident Region:	Northern
Incident Telephone:	Faxed,Mailed
Incident Date:	11/23/1993
Incident time:	Not reported
Incident ITM:	B
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	Not reported
Reporter Type:	Not reported
Reporter Name:	Not reported
Reporter Title:	Not reported
Reporter Org:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Known
Responsible Party Name:	TIFA
Responsible Party Contact:	ARNOLD LIVINGSTON
Responsible Party Title:	OWNER
Responsible Party Phone:	N/A
Responsible Party Street:	50 DIVISION AVE
Responsible Party County:	MORRIS
Responsible Party City,St,Zip:	MILLINGTON, NJ
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported
Facility Type:	Commercial
Facility Phone:	908-647-4570
Incident Date:	01/07/1993
Incident Time:	1112
Trenton Dispatch Log Number:	300
Case Number:	93-1-7-1125-04

TIFA LIMITED (Continued) **U002156146**

Date Received:	01/07/1993
Nature of Incident:	Facility
Operator:	JOYCE
Incident Type:	Not reported
Incident Location:	Not reported
Location:	Facility
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	OIL FUEL #6
Substance Type:	Liquid
Substance Identity:	Known
CAS Number:	Not reported
A310 Letter:	Yes
TCPA Chemical:	No
Hazrds Material:	Yes
COMU:	1430
Ref. Code:	046
Amt Released:	UNK
Contained:	Yes
Release Type:	Terminated
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Land
Receiving Water:	Not reported
Status at Spill:	INVESTIGATION CONTINUING FOR FUTURE REMOVAL 1/30,000 GAL LUST. TMS#C-92-3911, UST#0240699.
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	No
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	PASSAIC TWP
Local Municipality Title:	DISP #9
Local Municipality Telephone:	908-647-1800
Local Municipality Date:	01/07/1993
Local Municipality Time:	1158
Incident Description:	L.U.S.T.
Incident Name:	Not reported
Incident Referred To:	DRPSR

TIFA LIMITED (Continued) **U002156146**

Incident Region:	BAC
Incident Telephone:	Faxed,Mailed
Incident Date:	01/07/1993
Incident time:	Not reported
Incident ITM:	B
Comments:	Not reported
Date A310 Letter Printed:	1993-01-07 00:00:00
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	1993-01-07 00:00:00
Local Authority Notification Date:	Not reported
Rep Receive Date:	Not reported
Reporter Type:	Not reported
Reporter Name:	Not reported
Reporter Title:	Not reported
Reporter Org:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Known
Responsible Party Name:	TIFA LIMITED
Responsible Party Contact:	PAUL NEINABER
Responsible Party Title:	DIR ENV ENG
Responsible Party Phone:	908-647-4570
Responsible Party Street:	50 DIVISION AVE
Responsible Party County:	MORRIS
Responsible Party City,St,Zip:	MILLINGTON, NJ
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

NJ ISRA:

Pi Number:	024069
Action Number:	ISR090001
Title:	E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date	Not reported
Start Date:	10/14/2009
Case Status:	Assigned to Program
Case No:	E20090221
Case Name:	PROVIDET SERVICE ASSOCIATES INC
Trigger Type:	Property Sale
Trigger Date:	10/06/2009

Pi Number:	024069
Action Number:	ISR090001

TIFA LIMITED (Continued) **U002156146**

Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 01/20/2011
Case Status: Withdrawn from ECRA/ISRA
Case No: E20090221
Case Name: PROVIDET SERVICE ASSOCIATES INC
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 10/14/2009
Case Status: Assigned to Program
Case No: E20090222
Case Name: IMPERIAL METALS INC
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 01/20/2011
Case Status: Withdrawn from ECRA/ISRA
Case No: E20090222
Case Name: IMPERIAL METALS INC
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 10/14/2009
Case Status: Assigned to Program
Case No: E20090223
Case Name: AUTO DRILL LLC
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 01/20/2011
Case Status: Withdrawn from ECRA/ISRA
Case No: E20090223
Case Name: AUTO DRILL LLC
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported

TIFA LIMITED (Continued) **U002156146**

Start Date: 10/14/2009
Case Status: Assigned to Program
Case No: E20090224
Case Name: HYDRA DESIGNS
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 01/20/2011
Case Status: Withdrawn from ECRA/ISRA
Case No: E20090224
Case Name: HYDRA DESIGNS
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 10/14/2009
Case Status: Assigned to Program
Case No: E20090225
Case Name: NEAC INC
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 01/20/2011
Case Status: Withdrawn from ECRA/ISRA
Case No: E20090225
Case Name: NEAC INC
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 10/14/2009
Case Status: Assigned to Program
Case No: E20090226
Case Name: TIFA INTERNATIONAL
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 01/20/2011
Case Status: Withdrawn from ECRA/ISRA

TIFA LIMITED (Continued) **U002156146**

Case No: E20090226
Case Name: TIFA INTERNATIONAL
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 10/14/2009
Case Status: Assigned to Program
Case No: E20090227
Case Name: Z & R CUTTING
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR090001
Title: E20090221 PROVIDET SERVICE ASS
Isra Trg: Finalized Date Not reported
Start Date: 01/20/2011
Case Status: Withdrawn from ECRA/ISRA
Case No: E20090227
Case Name: Z & R CUTTING
Trigger Type: Property Sale
Trigger Date: 10/06/2009

Pi Number: 024069
Action Number: ISR130001
Title: E20130334 IMPERIAL METALS INC
Isra Trg: Finalized Date Not reported
Start Date: 08/08/2013
Case Status: Assigned to Program
Case No: E20130334
Case Name: IMPERIAL METALS INC
Trigger Type: Not reported
Trigger Date: Not reported

Pi Number: 024069
Action Number: ISR130001
Title: E20130334 IMPERIAL METALS INC
Isra Trg: Finalized Date Not reported
Start Date: 08/22/2013
Case Status: Exempt from ECRA/ISRA
Case No: E20130334
Case Name: IMPERIAL METALS INC
Trigger Type: Not reported
Trigger Date: Not reported

Pi Number: 024069
Action Number: ISR870001
Title: E87061 Crystaline Optics, Inco
Isra Trg: Finalized Date Not reported
Start Date: 08/17/1987
Case Status: NFA (No Further Action) HISTORIC
Case No: E87061
Case Name: Crystaline Optics, Incorporated

TIFA LIMITED (Continued) **U002156146**

Trigger Type: Business Sale
Trigger Date: 03/23/1987

Pi Number: 024069
Action Number: ISR900002
Title: E90095 Iden Industries
Isra Trg: Finalized Date Not reported
Start Date: 02/27/1991
Case Status: NFA (No Further Action) HISTORIC
Case No: E90095
Case Name: Iden Industries
Trigger Type: Cessation
Trigger Date: 04/23/1990

Pi Number: 024069
Action Number: ISR900004
Title: E90252 Esco Precision, Incorpo
Isra Trg: Finalized Date Not reported
Start Date: 02/27/1991
Case Status: NFA (No Further Action) HISTORIC
Case No: E90252
Case Name: Esco Precision, Incorporated
Trigger Type: Cessation
Trigger Date: 04/09/1990

Pi Number: 024069
Action Number: ISR910002
Title: E91281 S. L. F. Industries
Isra Trg: Finalized Date Not reported
Start Date: 07/12/1991
Case Status: NFA (No Further Action) HISTORIC
Case No: E91281
Case Name: S. L. F. Industries
Trigger Type: Cessation
Trigger Date: 05/28/1991

Pi Number: 024069
Action Number: ISR920002
Title: E92205 Hal Feldman Incorporate
Isra Trg: Finalized Date Not reported
Start Date: 07/31/1992
Case Status: NFA (No Further Action) HISTORIC
Case No: E92205
Case Name: Hal Feldman Incorporated
Trigger Type: Cessation
Trigger Date: 06/22/1992

NJPDES:
NJPDES Permit Number: NJ0062341
Facility Telephone: 9086470050
Facility Contact: JASON PAUL
Facility Municipality: LONG HILL TWP.
Facility Enforcement region: NORTHERN
Discharger Classification: Minor
Discharger Category Code: Not reported
Document Status: Not reported
Facility Primary SIC code: Not reported

TIFA LIMITED (Continued) **U002156146**

Facility Ownership:	PRIVATE
Facility Discharge Basin code:	Not reported
Facility Discharge Basin name:	Not reported
Facility Lat/Long:	0 0
Site X Coordinate:	Not reported
Site X Coordinate:	Not reported
Facility Lot number:	Not reported
Facility Block number:	Not reported
Permittee Name:	SPHINX ELECTRO-PLATING CORP
Permittee Address:	50 DIVISION AVE
Permittee PO Box:	BUILDING #3
Permittee City,St,Zip:	MILLINGTON, NJ 07946 0000
Category Description:	RENEWAL
Date Permit Application Received:	02/01/1991
Date Draft Permit Issued:	03/19/1997
Date Final Permit Issued:	05/10/1997
Date Final Permit Effective:	07/01/1997
Date Final Permit Expires:	06/30/2002
PI Number:	Not reported
Regional Office:	Not reported
Permit Category:	DISCHARGE TO POTW (SIU)

A10 **TIFA INTL LLC** **SSTS** **1012053495**
Target **50 DIVISION AVE** **N/A**
Property **MILLINGTON, 7946**

Site 10 of 31 in cluster A

Actual: **243 ft.**

SSTS:

Product:	CHEM SECT CUBE FISH TOXICANT
Contact:	Not reported
Status:	Not reported
Registration Number:	082397NJ001
Report Year:	2005
Permit:	Not reported
Product Number:	08239700005
Product Type:	Technical material or active ingredient
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM SECT FISH SYNERGIZED
Contact:	Not reported
Status:	Not reported
Registration Number:	082397NJ001
Report Year:	2005
Permit:	Not reported
Product Number:	08239700002
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	Not reported

TIFA INTL LLC (Continued) **1012053495**

Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT POWDERED CUBE ROOT
Contact: Not reported
Status: Not reported
Registration Number: 082397NJ001
Report Year: 2005
Permit: Not reported
Product Number: 08239700003
Product Type: Technical material or active ingredient
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT ROTENONE RESINS
Contact: Not reported
Status: Not reported
Registration Number: 082397NJ001
Report Year: 2005
Permit: Not reported
Product Number: 08239700004
Product Type: Technical material or active ingredient
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND CUBE POWDER FISH TOXICANT
Contact: Not reported
Status: Not reported
Registration Number: 082397NJ001
Report Year: 2007
Permit: Registered
Product Number: 08239700005
Product Type: Technical material or active ingredient
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: 02
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT FISH REG
Contact: Not reported
Status: Not reported
Registration Number: 082397NJ001
Report Year: 2007
Permit: Registered

TIFA INTL LLC (Continued) **1012053495**

Product Number:	08239700001
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	02
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM SECT FISH SYNERGIZED
Contact:	Not reported
Status:	Not reported
Registration Number:	082397NJ001
Report Year:	2007
Permit:	Registered
Product Number:	08239700002
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	02
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM SECT FISH REG
Contact:	DEIDRE A. CERCIELLO VICE PRRESIDENT P: 90864745700010
Status:	Not reported
Registration Number:	082397-NJ-001
Report Year:	2008
Permit:	Not reported
Product Number:	82397-1
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Not reported
Product Use:	Not reported
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	2
Zero product:	No
Pesticide RUP report:	1

Product:	CHEM SECT BRAND CUBE POWDER FISH TOXICANT
Contact:	DEIDRE A. CERCIELLO VICE PRRESIDENT P: 90864745700010
Status:	Not reported
Registration Number:	082397-NJ-001
Report Year:	2009
Permit:	Not reported
Product Number:	82397-5
Product Type:	Technical material or active ingredient
Product Class:	Not reported
Product Use:	Not reported
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	Not reported
Zero product:	No
Pesticide RUP report:	1

TIFA INTL LLC (Continued) **1012053495**

Product:	CHEM SECT FISH REG
Contact:	DEIDRE A. CERCIELLO VICE PRRESIDENT P: 90864745700010
Status:	Not reported
Registration Number:	082397-NJ-001
Report Year:	2009
Permit:	Not reported
Product Number:	82397-1
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Not reported
Product Use:	Not reported
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	Not reported
Zero product:	No
Pesticide RUP report:	1

Product:	CHEM SECT FISH SYNERGIZED
Contact:	DEIDRE A. CERCIELLO VICE PRRESIDENT P: 90864745700010
Status:	Not reported
Registration Number:	082397-NJ-001
Report Year:	2009
Permit:	Not reported
Product Number:	82397-2
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Not reported
Product Use:	Not reported
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	Not reported
Zero product:	No
Pesticide RUP report:	1

Product:	CHEM SECT ROTENONE RESINS
Contact:	DEIDRE A. CERCIELLO VICE PRRESIDENT P: 90864745700010
Status:	Not reported
Registration Number:	082397-NJ-001
Report Year:	2009
Permit:	Not reported
Product Number:	82397-4
Product Type:	Technical material or active ingredient
Product Class:	Not reported
Product Use:	Not reported
UOM:	Not reported
Market:	Marketed in the United States
Region:	Not reported
Zero product:	No
Pesticide RUP report:	1

A11 **POLE TRANSFORMER/JC1499** **NJ SPILLS** **S102214228**
Target **50 DIVISION AVE** **N/A**
Property **LONG HILL, NJ**

Site 11 of 31 in cluster A

Actual:
243 ft.

NJ SPILL:

Trenton Dispatch Log Number:	4529
Case Number:	95-3-30-1526-49
Notify Type:	Not reported
Date Received:	03/30/1995
Location:	Other
Other Location:	Not reported
Incident Date:	03/30/1995
Incident Time:	1520
A310 Letter:	Yes
Ref. Code:	101
COMU:	1430
CAS Number:	Not reported
Hazardous:	Not reported
Incident Location:	Not reported
Facility Type:	Commercial
Facility Phone:	Not reported
Substance(s):	OIL TRANSFORMER NON-PCB
Substance Type:	Known
Substance Identity:	Liquid
TCPA Chemical:	No
Hazrds Material:	Yes
Amnt Released:	60- GAL
Release VE:	Estimate
Contained:	Yes
Release Type:	Terminated
Incident Desc:	Spill,MVA
Status at Spill:	SPILL DUE TO MVA WITH POLE,AETC WILL DO CLEANUP
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Phone:	Not reported
Injuries:	No
Public Exposure:	Yes
Road Closed:	Not reported
Facility Evacuation:	No
Receiving Water:	Not reported
Public Evacuation:	No
Police at Scene:	Yes
Firemen at Scene:	Yes
Contamination of:	Land
Nature of Incident:	Other
Wind Direction/Speed:	Not reported
Assistance Requested:	No
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Operator:	SELL

POLE TRANSFORMER/JC1499 (Continued) **S102214228**

Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Phone:	Not reported
Responsible Party:	Known
Responsible Party Name:	JCP&L
Responsible Party Contact:	MARTIN REILLY
Responsible Party Title:	SUPV
Responsible Party Telphone:	201-455-8642
Responsible Party Street:	51 CHATAM RD
Responsible Party Municipality:	SUMMIT
Responsible Party State:	NJ
Responsible Party Zip:	Not reported
Responsible City,St,Zip:	SUMMIT, NJ
Responsible Party County:	UNION
Local Municipality:	Not reported
Local Municipality Name:	PASSAIC TWP
Local Municipality Title:	DISP NOVAC
Local Municipality Phone:	908-647-1800
Local Municipality Date:	03/30/1995
Local Municipality Time:	1529
Incident Name:	Not reported
Incident Referred To:	DRPSR
Incident Region:	BFO-CAS
Incident Phone:	Faxed,Mailed
Incident Date:	03/30/1995
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Update:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Reporter Name:	Not reported
Reporter Type:	Not reported
Rep Received Date:	Not reported
Reporter Title:	Not reported
Reporter Orgzn:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Type:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported

A12 **NJ Release** **S117243416**
Target **50 DIVISION AVE** **N/A**
Property **LONG HILL TWP, NJ 07946**

Site 12 of 31 in cluster A

Actual:
243 ft.

NJ Release:

Facility Type:	Commercial
Facility Phone:	Not reported
Incident Date:	06/20/2014
Incident Time:	Not reported
Trenton Dispatch Log Number:	521920
Case Number:	14-06-23-1404-13
Date Received:	06/23/2014
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Improper disposal/Storage
Incident Location:	TOP FLIGHT GYMNASTICS
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported

(Continued) **S117243416**

Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments:	Not reported
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	06/23/2014
Reporter Type:	Citizen Complaint
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Intermittent
Incident Category:	Other
Incident Source:	TOP FLIGHT GYMNASTICS
Incident Address:	50 DIVISION AVE
Incident Address 2:	Not reported
Incident City,St,Zip:	Long Hill Twp, NJ 07946
Incident County:	Morris
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

A13 **AREA OF** **NJ Release** **S112124442**
Target **50 DIVISION AVE** **N/A**
Property **MILLINGTON, NJ**

Site 13 of 31 in cluster A

Actual:
243 ft.

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	01/20/1997
Incident Time:	1234
Trenton Dispatch Log Number:	752
Case Number:	97-1-20-1424-00
Date Received:	01/20/1997
Nature of Incident:	Municipal
Operator:	PAT
Incident Type:	Not reported
Incident Location:	Not reported
Location:	Other
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	ODORS
Substance Type:	Gas
Substance Identity:	Known
CAS Number:	Not reported
A310 Letter:	No
TCPA Chemical:	No
Hazrds Material:	No
COMU:	1430
Ref. Code:	004
Amt Released:	UNKNOWN
Contained:	No
Release Type:	Continuous
Release VE:	Not reported
Injuries:	No
Public Exposure:	Yes
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Air
Receiving Water:	Not reported
Status at Spill:	STRONG UNKNOWN ODORS COMING FROM FACILITY.
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Yes

AREA OF (Continued) **S112124442**

Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Odors/Vapors
Incident Name:	Not reported
Incident Referred To:	OEP-AIR
Incident Region:	Northern
Incident Telephone:	Not reported
Incident Date:	01/20/1997
Incident time:	Not reported
Incident ITM:	B
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	Not reported
Reporter Type:	Not reported
Reporter Name:	Not reported
Reporter Title:	Not reported
Reporter Org:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Suspected
Responsible Party Name:	TIFA
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	50 DIVISION AVE
Responsible Party County:	MORRIS
Responsible Party City,St,Zip:	MILLINGTON, NJ
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

A14 **RW DELIGHTS INC** **FINDS** **1012278376**
Target **50 DIVISION AVE** **N/A**
Property **MILLINGTON, NJ 07946**

Site 14 of 31 in cluster A

Actual: FINDS:
243 ft.

Registry ID: 110040252115

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A15 **NORTHEAST INSTRUMENTS, INC.** **MLTS** **1001209645**
Target **50 DIVISION AVENUE P.O.BOX 365** **N/A**
Property **MILLINGTON, NJ 7946**

Site 15 of 31 in cluster A

Actual: MLTS:
243 ft.

License Number:	29-28063-01
First License Date:	09/24/87
License Date:	09/24/87
Lic. Expiration Date:	09/30/92
Contact Name:	EDWARD SHAW
Contact Phone:	201-838-6089
Institution Code:	28063
Department/Bldg:	Not reported
States Allowing Use:	Not reported
Store Material Use:	No
Redistribution Use:	Yes
Incinerate Use:	No
Burial Use:	No
Last Inspection Date:	08/01/91
Next Inspection Date:	Not reported
Licensee Contact:	Not reported
Inspector Name:	EDWARD SHAW

A16 **ESCO PRECISION INC** **FINDS** **1010222035**
Target **50 DIVISION AVE** **N/A**
Property **MILLINGTON, NJ 07946**

Site 16 of 31 in cluster A

Actual: FINDS:
243 ft.

Registry ID: 110029420320

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

ESCO PRECISION INC (Continued) **1010222035**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A17 **SPHINX ELECTRO PLATING CORP** **FINDS** **1010425041**
Target **50 DIVISION AVE** **N/A**
Property **PARSIPPANY, NJ 07054**

Site 17 of 31 in cluster A

Actual: **243 ft.**

FINDS:

Registry ID: 110031652263

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A18 **AUTODRILL CORP** **FINDS** **1010556918**
Target **50 DIVISION AVE** **N/A**
Property **MILLINGTON, NJ 07946**

Site 18 of 31 in cluster A

Actual: **243 ft.**

FINDS:

Registry ID: 110032559782

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A19 **TIFA LTD** **SSTS** **1005438130**
Target **TIFA SQUARE, 50 DIVISION AVE** **N/A**
Property **MILLINGTON, NJ 07946**

Site 19 of 31 in cluster A

Actual: **243 ft.**

SSTS:

Product:	CHEM SECT BRAND ROTENONE RESINS
Contact:	Not reported
Status:	Active
Registration Number:	001439NJ 001
Report Year:	Not reported
Permit:	Registered

TIFA LTD (Continued) **1005438130**

Product Number: 00143900259
Product Type: Technical material or active ingredient
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND CHEM FISH REGULAR
Contact: Not reported
Status: Active
Registration Number: 001439NJ 001
Report Year: Not reported
Permit: Registered
Product Number: 00143900157
Product Type: Technical material or active ingredient
Product Class: Herbicide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND CUBE ROOT (ROTENONE POWDER)
Contact: Not reported
Status: Active
Registration Number: 001439NJ 001
Report Year: 1996
Permit: Registered
Product Number: 00143900236
Product Type: End-use blend, formulation, or concentrate
Product Class: Antifouling Paint
Product Use: Restricted use only
UOM: P
Market: Marketed in the United States and exported out of the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND CHEM FISH SYNERGIZED
Contact: Not reported
Status: Active
Registration Number: 001439NJ 001
Report Year: 1996
Permit: Registered
Product Number: 00143900159
Product Type: Technical material or active ingredient
Product Class: Antifouling Paint
Product Use: Restricted use only
UOM: G
Market: Marketed in the United States and exported out of the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

TIFA LTD (Continued) **1005438130**

Product:	CHEM SECT BRAND ROTENONE RESINS
Contact:	Not reported
Status:	Active
Registration Number:	001439NJ 001
Report Year:	1996
Permit:	Registered
Product Number:	00143900259
Product Type:	Technical material or active ingredient
Product Class:	Antifouling Paint
Product Use:	Restricted use only
UOM:	P
Market:	Marketed in the United States and exported out of the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM SECT BRAND CHEM FISH REGULATOR
Contact:	Not reported
Status:	Not reported
Registration Number:	001439NJ 001
Report Year:	1999
Permit:	Registered
Product Number:	00143800157
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM SECT BRAND CHEM FISH SYNERGIZED
Contact:	Not reported
Status:	Not reported
Registration Number:	001439NJ 001
Report Year:	1999
Permit:	Registered
Product Number:	00143900159
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	Not reported
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM SECT BRAND CUBE ROOT (ROTENONE POWDER)
Contact:	Not reported
Status:	Not reported
Registration Number:	001439NJ 001
Report Year:	1999
Permit:	Registered
Product Number:	00143900236
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Insecticide

TIFA LTD (Continued) **1005438130**

Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND ROTENONE RESINS
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ 001
Report Year: 1999
Permit: Registered
Product Number: 00143900259
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND CHEM FISH SYNERGIZED
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ 001
Report Year: 2000
Permit: Registered
Product Number: 00143900159
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND ROTENONE RESINS
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ 001
Report Year: 2000
Permit: Registered
Product Number: 00143900259
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT CUBE POWDER FISH TOXICANT
Contact: Not reported

TIFA LTD (Continued) **1005438130**

Status: Not reported
Registration Number: 001439NJ 001
Report Year: 2000
Permit: Registered
Product Number: 00143900260
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT CHEM FISH REGULAR
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ 001
Report Year: 2000
Permit: Registered
Product Number: 00143900157
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States
Region: Not reported
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND ROTENONE RESINS
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ001
Report Year: 2002
Permit: Registered
Product Number: 00143900259
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States
Region: 02
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND CUBE POWDER FISH TOXICANT
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ001
Report Year: 2002
Permit: Registered
Product Number: 00143900260
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported

TIFA LTD (Continued) **1005438130**

Market: Marketed in the United States and exported out of the United States
Region: 02
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND CHEM FISH SYNERGIZER
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ001
Report Year: 2002
Permit: Registered
Product Number: 00143900159
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States
Region: 02
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND CHEM FISH REGULAR
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ001
Report Year: 2002
Permit: Registered
Product Number: 00143900157
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: 02
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT BRAND-CUBE POWDER FISH TOXICANT
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ001
Report Year: 2003
Permit: Registered
Product Number: 00143900260
Product Type: End-use blend, formulation, or concentrate
Product Class: Insecticide
Product Use: Restricted use only
UOM: Not reported
Market: Marketed in the United States and exported out of the United States
Region: 02
Zero product: Not reported
Pesticide RUP report: Not reported

Product: CHEM SECT FISH SYNERGIZED
Contact: Not reported
Status: Not reported
Registration Number: 001439NJ001

TIFA LTD (Continued) **1005438130**

Report Year:	2003
Permit:	Registered
Product Number:	00143900159
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	02
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM SECT BRAND ROTENONE RESINS
Contact:	Not reported
Status:	Not reported
Registration Number:	001439NJ001
Report Year:	2003
Permit:	Registered
Product Number:	00143900259
Product Type:	Technical material or active ingredient
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States
Region:	02
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEN SECT BRAND CHEM FISH REGULAR
Contact:	Not reported
Status:	Not reported
Registration Number:	001439NJ001
Report Year:	2003
Permit:	Registered
Product Number:	00143900157
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	02
Zero product:	Not reported
Pesticide RUP report:	Not reported

Product:	CHEM SECT BRAND POWDERED CUBE ROOT
Contact:	Not reported
Status:	Not reported
Registration Number:	001439NJ001
Report Year:	2003
Permit:	Registered
Product Number:	00143900236
Product Type:	Technical material or active ingredient
Product Class:	Insecticide
Product Use:	Restricted use only
UOM:	Not reported
Market:	Marketed in the United States and exported out of the United States
Region:	02

TIFA LTD (Continued) **1005438130**

Zero product: Not reported
Pesticide RUP report: Not reported

A20 **TIFA LIMITED** **FTTS** **1008982675**
Target **50 DIVISION AVE** **HIST FTTS** **N/A**
Property **MILLINGTON, NJ 7946**

Site 20 of 31 in cluster A

Actual:
243 ft.

FTTS INSP:
Inspection Number: 2004120123381 1
Region: 02
Inspection Date: 12/01/04
Inspector: A. ENACHE
Violation occurred: Yes
Investigation Type: Specific Product Review
Investigation Reason: For Cause, Government
Legislation Code: FIFRA
Facility Function: Producer

HIST FTTS INSP:
Inspection Number: 2004120123381 1
Region: 02
Inspection Date: Not reported
Inspector: A. ENACHE
Violation occurred: Yes
Investigation Type: Specific Product Review
Investigation Reason: For Cause, Government
Legislation Code: FIFRA
Facility Function: Producer

A21 **GELLNER & CO INC** **FINDS** **1006997319**
Target **50 DIVISION AVE** **ECHO** **N/A**
Property **MILLINGTON, NJ 07946**

Site 21 of 31 in cluster A

Actual:
243 ft.

FINDS:

Registry ID: 110014681781

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System).
The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

GELLNER & CO INC (Continued) **1006997319**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1006997319
Registry ID: 110014681781
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110014681781

A22 **LAWN DOCTOR OF BERNARDSVILLE** **FINDS** **1010154184**
Target Property **50 DIVISION AVE** **N/A**
MILLINGTON, NJ 07946

Site 22 of 31 in cluster A

Actual: 243 ft.

FINDS:

Registry ID: 110030599939

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A23 **AREA OF** **NJ SPILLS** **S104419183**
Target Property **50 DIVISION AVE** **N/A**
MILLINGTON, NJ

Site 23 of 31 in cluster A

Actual: 243 ft.

NJ SPILL:
Trenton Dispatch Log Number: 4521
Case Number: 95-3-30-1500-12
Notify Type: Not reported
Date Received: 03/30/1995
Location: Other
Other Location: Not reported
Incident Date: 03/30/1995
Incident Time: 1428
A310 Letter: No
Ref. Code: 101
COMU: 1430
CAS Number: Not reported
Hazardous: Not reported
Incident Location: Not reported
Facility Type: Industrial
Facility Phone: Not reported
Substance(s): OIL TRANSFORMER UNK PCB
Substance Type: Known
Substance Identity: Liquid
TCPA Chemical: No
Hazrds Material: Yes

AREA OF (Continued) **S104419183**

Amnt Released:	UNK
Release VE:	Not reported
Contained:	Yes
Release Type:	Terminated
Incident Desc:	Spill
Status at Spill:	POLE COLLAPSED CAUSING SPILL. MATERIAL IS CONTAINED & BEING CLEANED UP
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Phone:	Not reported
Injuries:	No
Public Exposure:	No
Road Closed:	Not reported
Facility Evacuation:	No
Receiving Water:	Not reported
Public Evacuation:	No
Police at Scene:	Yes
Firemen at Scene:	Yes
Contamination of:	Land
Nature of Incident:	Municipal
Wind Direction/Speed:	Not reported
Assistance Requested:	No
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Operator:	ROGER
Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Phone:	Not reported
Responsible Party:	Known
Responsible Party Name:	J.C.P. &L.
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Telphone:	Not reported
Responsible Party Street:	Not reported
Responsible Party Municipality:	Not reported
Responsible Party State:	Not reported
Responsible Party Zip:	Not reported
Responsible City,St,Zip:	Not reported
Responsible Party County:	Not reported
Local Municipality:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Phone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Name:	Not reported
Incident Referred To:	DRPSR
Incident Region:	BFO-CAS

AREA OF (Continued) **S104419183**

Incident Phone:	Faxed,Mailed
Incident Date:	03/30/1995
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Update:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Reporter Name:	Not reported
Reporter Type:	Not reported
Rep Received Date:	Not reported
Reporter Title:	Not reported
Reporter Orgzn:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Type:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported

A24 **TIFA INTERNATIONAL LLC** **RCRA NonGen / NLR** **1000262140**
Target **50 DIVISION AVE - UNIT #28** **NJD980762199**
Property **MILLINGTON, NJ 07946**

Site 24 of 31 in cluster A

Actual:
243 ft.

RCRA NonGen / NLR:

Date form received by agency:	04/28/2008
Facility name:	TIFA INTERNATIONAL LLC
Facility address:	50 DIVISION AVE - UNIT #28 MILLINGTON, NJ 07946
EPA ID:	NJD980762199
Mailing address:	DIVISION AVE - UNIT #28 MILLINGTON, NJ 07946
Contact:	DEIRDRE A CERCIELLO
Contact address:	DIVISION AVE - UNIT #28 MILLINGTON, NJ 07946
Contact country:	US
Contact telephone:	908-647-4570
Contact email:	Not reported
EPA Region:	02
Land type:	Private
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	TIFA REALTY INC (FORMERLY TIFA LTD)
Owner/operator address:	DIVISION AVE SUITE 34A MILLINGTON, NJ 07946
Owner/operator country:	US

TIFA INTERNATIONAL LLC (Continued) **1000262140**

Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1978
Owner/Op end date: Not reported

Owner/operator name: TIFA INTERNATIONAL LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/14/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

TIFA INTERNATIONAL LLC (Continued) **1000262140**

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D013
. Waste name: LINDANE

. Waste code: D020
. Waste name: CHLORDANE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: P006
. Waste name: ALUMINUM PHOSPHIDE (R,T)

. Waste code: P012
. Waste name: ARSENIC OXIDE AS2O3

. Waste code: P020
. Waste name: DINOSEB

. Waste code: U036
. Waste name: CHLORDANE, ALPHA & GAMMA ISOMERS

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA,2ALPHA,3BETA,4ALPHA,5ALPHA,6BETA)-

Historical Generators:
Date form received by agency: 02/14/2007
Site name: TIFA INTERNATIONAL LLC
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D002
. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS

TIFA INTERNATIONAL LLC (Continued) **1000262140**

USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D013
. Waste name: LINDANE

. Waste code: D020
. Waste name: CHLORDANE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: P006
. Waste name: ALUMINUM PHOSPHIDE (R,T)

. Waste code: P012
. Waste name: ARSENIC OXIDE AS2O3

. Waste code: P020
. Waste name: DINOSEB

. Waste code: U036
. Waste name: CHLORDANE, ALPHA & GAMMA ISOMERS

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA,2ALPHA,3BETA,4ALPHA,5ALPHA,6BETA)-

Date form received by agency: 02/13/2007
Site name: TIFA INTERNATIONAL LLC
Classification: Small Quantity Generator

Date form received by agency: 02/13/2007
Site name: TIFA INTERNATIONAL LLC
Classification: Small Quantity Generator

Date form received by agency: 10/07/1983
Site name: ANNIS FUEL OIL SERVICES INC
Classification: Large Quantity Generator

. Waste code: NONE
. Waste name: None

TIFA INTERNATIONAL LLC (Continued) **1000262140**

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 05/21/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

A25 **WINTRONICS INC** **FINDS** **1010518568**
Target **50 DIVISION AVE** **N/A**
Property **BASKING RIDGE, NJ 07920**

Site 25 of 31 in cluster A

Actual: 243 ft.

FINDS:

Registry ID: 110032224554

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System).
The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A26 **SPHINX ELECTROPLATING CORP** **RCRA NonGen / NLR** **1001079518**
Target **50 DIVISION AVE** **NJS009000126**
Property **LONG HILL TWP, NJ 07946**

Site 26 of 31 in cluster A

Actual: 243 ft.

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: SPHINX ELECTROPLATING CORP
Facility address: 50 DIVISION AVE
LONG HILL TWP, NJ 07946
EPA ID: NJS009000126
Mailing address: DIVISION AVE
LONG HILL TWP, NJ 07946
Contact: MOSTAFA SOLIMAN
Contact address: DIVISION AVE
LONG HILL TWP, NJ 07946
Contact country: US
Contact telephone: 908-647-0050
Contact email: Not reported
EPA Region: 02
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NON-REGULATED
Owner/operator address: NOT REQUIRED

SPHINX ELECTROPLATING CORP (Continued) **1001079518**

NOT REQUIRED, NJ 99999
Owner/operator country: US
Owner/operator telephone: 908-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NON-REGULATED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, NJ 99999
Owner/operator country: US
Owner/operator telephone: 908-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: SPHINX ELECTROPLATING CORP
Classification: Not a generator, verified

Date form received by agency: 11/22/1995
Site name: SPHINX ELECTROPLATING CORP
Classification: Unverified

. Waste code: NONE
. Waste name: None

Violation Status: No violations found

SPHINX ELECTROPLATING CORP (Continued) **1001079518**

Evaluation Action Summary:
Evaluation date: 11/17/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

A27 **ANNIS FUEL OIL SERVICES INC** **NJ ENG CONTROLS** **S108793718**
Target **50 DIVISION AVE** **NJ MANIFEST** **N/A**
Property **MILLINGTON, NJ 07946**

Site 27 of 31 in cluster A

Actual:
243 ft.

NJ ENGINEERING CONTROLS:
Site ID: 27413
Pi Number: 024069
PI Name: TIFA LIMITED
Owner Name: Not reported
DER Filed Date: 09/08/2008
DER Lifted Date: Not reported
Der Deed Usage (si): Restricted
Deed Specific Requirement: Permeable Cover
Deeds Parameter Desc: Asbestos
Deeds Depth: 100.00
Comments: Not reported

NJ MANIFEST:
EPA Id: NJD980762199
Mail Address: Not reported
Mail City/State/Zip: Not reported
Facility Phone: Not reported
Emergency Phone: Not reported
Contact: Not reported
Comments: Not reported
SIC Code: 5983
County: 14
Municipal: 30
Previous EPA Id: Not reported
Gen Flag: D
Trans Flag: Not reported
TSDF Flag: Not reported
Name Change: Not reported
Date Change: Not reported

Manifest:
Manifest Number: 000124362GBF
EPA ID: NJD980762199
Date Shipped: 03/08/2007
TSDF EPA ID: NJD002200046
Transporter EPA ID: NJD986607380
Transporter 2 EPA ID: Not reported
Transporter 3 EPA ID: Not reported
Transporter 4 EPA ID: Not reported
Transporter 5 EPA ID: Not reported
Transporter 6 EPA ID: Not reported
Transporter 7 EPA ID: Not reported
Transporter 8 EPA ID: Not reported
Transporter 9 EPA ID: Not reported

ANNIS FUEL OIL SERVICES INC (Continued) **S108793718**

Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	03/08/2007
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	03/08/2007
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	No
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H14
Quantity:	110 P

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H06
Quantity:	12 P

Manifest Year:	Not reported
Waste Code:	D003
Hand Code:	H14
Quantity:	3 P

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H14
Quantity:	230 P

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H14
Quantity:	3 P

Manifest Year:	Not reported
Waste Code:	D002
Hand Code:	H14
Quantity:	5 P

A28 **WILD BILLS OLDE FASHION SODA POP** **FINDS** **1014792176**
Target Property **50 DIVISION AVE** **N/A**
MILLINGTON, NJ 07946

Site 28 of 31 in cluster A

Actual: 243 ft.

FINDS:

Registry ID: 110041855338

Environmental Interest/Information System
NJ-NJEMS (New Jersey - New Jersey Environmental Management System).
The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A29 **TIFA INTERNATIONAL CORP** **NJ NJEMS** **S113566641**
Target Property **50 DIVISION AVE** **N/A**
PASSAIC TWP, NJ 07946

Site 29 of 31 in cluster A

Actual: 243 ft.

NJEMS:

Site Id:	27413
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485427.45000000001
Y Coord:	669795.57999999996
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	Digital Image
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

A30 **ASBESTOS DUMP** **ICIS** **1018294752**
Target Property **TIFA SQUARE - 50 DIVISION AVE** **N/A**
MILLINGTON, NJ 07946

Site 30 of 31 in cluster A

Actual: 243 ft.

ICIS:

Enforcement Action ID:	02-2000-0022
FRS ID:	110009300381
Action Name:	Tifa Realty Inc., et al
Facility Name:	ASBESTOS DUMP

ASBESTOS DUMP (Continued) **1018294752**

Facility Address:	TIFA SQUARE - 50 DIVISION AVE MILLINGTON, NJ 07946
Enforcement Action Type:	Civil Judicial Action
Facility County:	MORRIS
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Judicial
EA Type Code:	CIV
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	40.6725
Longitude in Decimal Degrees:	-74.52556
Permit Type Desc:	Not reported
Program System Acronym:	45045
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Facility Name:	ASBESTOS DUMP
Address:	TIFA SQUARE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	ASBESTOS DUMP
Address:	TIFA SQUARE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	ASBESTOS DUMP
Address:	TIFA SQUARE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

A31 **TIFA (CI) LIMITED** **ICIS** **1018289738**
Target **TIFA SQUARE 50 DIVISION AVENUE** **N/A**
Property **MILLINGTON, NJ 07946**

Site 31 of 31 in cluster A

Actual:
243 ft.

ICIS:

Enforcement Action ID:	02-2006-5119
FRS ID:	110004179059
Action Name:	TIFA International LLC
Facility Name:	TIFA (CI) LIMITED
Facility Address:	TIFA SQUARE 50 DIVISION AVENUE MILLINGTON, NJ 07946
Enforcement Action Type:	FIFRA 14A Action For Penalty
Facility County:	MORRIS
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	14A
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported

TIFA (CI) LIMITED (Continued) **1018289738**

Latitude in Decimal Degrees: 40.673065
Longitude in Decimal Degrees: -74.522974
Permit Type Desc: Not reported
Program System Acronym: 7263139
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

TIFA (CI) LIMITED (Continued) **1018289738**

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP

TIFA (CI) LIMITED (Continued) **1018289738**

Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE

TIFA (CI) LIMITED (Continued) **1018289738**

Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5169
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5169
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5169
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5169
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5169
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5169
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5169
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5169
Facility Name:	TIFA INTERNATIONAL CORP
Address:	50 DIVISION AVENUE
Tribal Indicator:	N

TIFA (CI) LIMITED (Continued) **1018289738**

Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No

TIFA (CI) LIMITED (Continued) **1018289738**

NAIC Code: Not reported
SIC Code: 5169

Facility Name: TIFA INTERNATIONAL CORP
Address: 50 DIVISION AVENUE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5169

B32 **ASBESTOS DUMP** **FINDS 1016636817**
TIFA SQUARE **ECHO N/A**
< 1/8 **MILLINGTON, NJ 07946**
1 ft.

Site 1 of 2 in cluster B

Relative: Lower

FINDS:

Actual: 212 ft.

Registry ID: 110009300381

Environmental Interest/Information System
SUPERFUND NPL

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016636817
Registry ID: 110009300381
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110009300381

B33 **ASBESTOS DUMP** **Delisted NPL** **1000222616**
TIFA SQUARE **SEMS** **NJD980654149**
< 1/8 **MILLINGTON, NJ 07946** **US ENG CONTROLS**
1 ft. **US INST CONTROL**
Site 2 of 2 in cluster B **ROD**
PRP
Relative: **ICIS**
Lower **CONSENT**

Actual:
212 ft.

Delisted NPL:

EPA ID:	NJD980654149
Site ID:	200769
EPA Region:	2
Federal:	No
Deleted Date:	2010-07-12 00:00:00
Latitude:	40.672499999999999
Longitude:	-74.525560999999996

Category Details:

NPL Status:	Currently on the Final NPL
Category Description:	Depth To Aquifer-<= 10 Feet
Category Value:	0

NPL Status:	Currently on the Final NPL
Category Description:	Distance To Nearest Population-> 1/4 And <= 1/2 Mile
Category Value:	2500

Site Details:

Site Name:	ASBESTOS DUMP
Site Status:	Final
Site Zip:	07946
Site City:	MILLINGTON
Site State:	NJ
Federal Site:	No
Site County:	MORRIS
EPA Region:	02
Date Proposed:	12/30/82
Date Deleted:	Not reported
Date Finalized:	09/08/83

Substance Details:

NPL Status:	Currently on the Final NPL
Substance ID:	Not reported
Substance:	Not reported
CAS #:	Not reported
Pathway:	Not reported
Scoring:	Not reported

NPL Status:	Currently on the Final NPL
Substance ID:	U013
Substance:	ASBESTOS
CAS #:	1332-21-4
Pathway:	SURFACE WATER PATHWAY
Scoring:	4

Summary Details:

Conditions at listing December 1982): The Asbestos Dump covers 12 acres

ASBESTOS DUMP (Continued) **1000222616**

adjacent to the Passaic River in Millington, New Jersey. The Asbestos Hill is the result of years of dumping by several asbestos processing companies. In the 1950s, National Gypsum Co. acquired the site. Before closing the plant in 1975, National Gypsum had the dump covered with soil and seeded. The property was later sold to TIFA, Ltd., a manufacturer of pesticide-distributing equipment. At times erosionand weathering have exposed small areas of asbestos along the river bank. National Gypsum has an agreement with TIFA and the State to maintain the dump and stabili e the river bank. Recently, allegations have been made that phenylmercuric acetate had been disposed of in the dump. Status July 1983): Recently, National Gypsum restabili ed the river bank, correcting erosion that took place during heavy spring rains. EPA is planning a remedial investigation/ feasibility study to determine the type and extent of contamination at the site and identify alternatives for remedial action.

Site Status Details:

NPL Status:	Final
Proposed Date:	12/30/1982
Final Date:	09/08/1983
Deleted Date:	Not reported

Narratives Details:

NPL Name:	ASBESTOS DUMP
City:	MILLINGTON
State:	NJ

SEMS:

Site ID:	0200769
EPA ID:	NJD980654149
Cong District:	11
FIPS Code:	34027
Latitude:	+40.672500
Longitude:	-74.525561
FF:	N
NPL:	Deleted from the Final NPL
Non NPL Status:	Not reported

SEMS Detail:

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	CR
Action Name:	CI
SEQ:	1
Start Date:	1991-05-16 04:00:00
Finish Date:	11/12/1993 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149

ASBESTOS DUMP (Continued) **1000222616**

Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	CO
Action Name:	RI/FS
SEQ:	2
Start Date:	1990-09-27 04:00:00
Finish Date:	9/27/1991 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	01
Action Code:	CO
Action Name:	RI/FS
SEQ:	1
Start Date:	1983-09-28 04:00:00
Finish Date:	4/4/1985 6:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	HR
Action Name:	HAZRANK
SEQ:	1
Start Date:	1982-12-01 05:00:00
Finish Date:	12/1/1982 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	TA
Action Name:	TECH ASSIST
SEQ:	1
Start Date:	1994-12-22 05:00:00
Finish Date:	7/12/2010 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

ASBESTOS DUMP (Continued) **1000222616**

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	RV
Action Name:	RMVL
SEQ:	4
Start Date:	1994-12-16 05:00:00
Finish Date:	4/27/1995 4:00:00 AM
Qual:	S
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	TS
Action Name:	TRTSTUDY
SEQ:	2
Start Date:	1991-09-27 04:00:00
Finish Date:	2/28/1993 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	MA
Action Name:	ST COOP
SEQ:	2
Start Date:	1991-09-26 04:00:00
Finish Date:	11/28/2001 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	NF
Action Name:	NPL FINL
SEQ:	1
Start Date:	1983-09-08 04:00:00
Finish Date:	9/8/1983 4:00:00 AM

ASBESTOS DUMP (Continued) **1000222616**

Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	RS
Action Name:	RV ASSESS
SEQ:	1
Start Date:	1990-03-22 05:00:00
Finish Date:	9/5/1990 4:00:00 AM
Qual:	C
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	AR
Action Name:	ADMIN REC
SEQ:	4
Start Date:	1991-07-08 04:00:00
Finish Date:	3/31/1992 5:00:00 AM
Qual:	E
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	01
Action Code:	AR
Action Name:	ADMIN REC
SEQ:	3
Start Date:	1988-08-30 04:00:00
Finish Date:	9/30/1998 4:00:00 AM
Qual:	E
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	AR
Action Name:	ADMIN REC

ASBESTOS DUMP (Continued) **1000222616**

SEQ:	1
Start Date:	1990-11-30 05:00:00
Finish Date:	7/12/2010 5:00:00 AM
Qual:	V
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	RA
Action Name:	RA
SEQ:	2
Start Date:	1993-08-31 04:00:00
Finish Date:	9/29/2000 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	1982-08-01 04:00:00
Finish Date:	8/1/1982 4:00:00 AM
Qual:	L
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	RV
Action Name:	RMVL
SEQ:	2
Start Date:	1990-09-19 04:00:00
Finish Date:	1/25/1991 5:00:00 AM
Qual:	S
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N

ASBESTOS DUMP (Continued) **1000222616**

OU:	00
Action Code:	RV
Action Name:	RMVL
SEQ:	1
Start Date:	1990-08-23 04:00:00
Finish Date:	11/15/1990 5:00:00 AM
Qual:	S
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	NP
Action Name:	PROPOSED
SEQ:	1
Start Date:	1982-12-30 05:00:00
Finish Date:	12/30/1982 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	RS
Action Name:	RV ASSESS
SEQ:	2
Start Date:	1990-12-03 05:00:00
Finish Date:	1/31/1991 5:00:00 AM
Qual:	S
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	MA
Action Name:	ST COOP
SEQ:	3
Start Date:	1992-04-28 04:00:00
Finish Date:	3/31/2008 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149

ASBESTOS DUMP (Continued) **1000222616**

Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	CQ
Action Name:	CLSOUT R
SEQ:	1
Start Date:	2009-11-10 05:00:00
Finish Date:	11/10/2009 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	FE
Action Name:	5 YEAR
SEQ:	6
Start Date:	2015-09-18 04:00:00
Finish Date:	9/18/2015 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	TU
Action Name:	NOID
SEQ:	1
Start Date:	2010-05-11 05:00:00
Finish Date:	5/11/2010 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	RV
Action Name:	RMVL
SEQ:	5
Start Date:	1997-09-30 04:00:00
Finish Date:	3/24/1998 5:00:00 AM
Qual:	S
Current Action Lead:	EPA Perf

ASBESTOS DUMP (Continued) **1000222616**

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	TA
Action Name:	TECH ASSIST
SEQ:	2
Start Date:	2001-09-26 04:00:00
Finish Date:	9/30/2003 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	FE
Action Name:	5 YEAR
SEQ:	2
Start Date:	2005-09-20 04:00:00
Finish Date:	9/20/2005 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	ND
Action Name:	DELETION
SEQ:	1
Start Date:	2010-06-30 05:00:00
Finish Date:	7/12/2010 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	FE
Action Name:	5 YEAR
SEQ:	5
Start Date:	2010-09-24 04:00:00
Finish Date:	9/24/2010 4:00:00 AM

ASBESTOS DUMP (Continued) **1000222616**

Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	01
Action Code:	RD
Action Name:	RD
SEQ:	1
Start Date:	1992-09-30 04:00:00
Finish Date:	9/14/1998 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	01
Action Code:	RA
Action Name:	RA
SEQ:	1
Start Date:	1997-09-30 04:00:00
Finish Date:	9/28/2001 4:00:00 AM
Qual:	FR
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	AR
Action Name:	ADMIN REC
SEQ:	2
Start Date:	1990-11-30 05:00:00
Finish Date:	7/12/2010 5:00:00 AM
Qual:	V
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	FE
Action Name:	5 YEAR

ASBESTOS DUMP (Continued) **1000222616**

SEQ: 4
Start Date: 2005-09-19 04:00:00
Finish Date: 9/19/2005 4:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 02
Site ID: 0200769
EPA ID: NJD980654149
Site Name: ASBESTOS DUMP
NPL: D
FF: N
OU: 00
Action Code: FE
Action Name: 5 YEAR
SEQ: 3
Start Date: 2010-09-09 04:00:00
Finish Date: 9/9/2010 4:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 02
Site ID: 0200769
EPA ID: NJD980654149
Site Name: ASBESTOS DUMP
NPL: D
FF: N
OU: 02
Action Code: GR
Action Name: PART DEL
SEQ: 2
Start Date: 2002-02-08 05:00:00
Finish Date: 2/8/2002 5:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 02
Site ID: 0200769
EPA ID: NJD980654149
Site Name: ASBESTOS DUMP
NPL: D
FF: N
OU: 00
Action Code: CM
Action Name: PCOR
SEQ: 1
Start Date: 2000-06-30 04:00:00
Finish Date: 6/30/2000 4:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 02
Site ID: 0200769
EPA ID: NJD980654149
Site Name: ASBESTOS DUMP
NPL: D
FF: N

ASBESTOS DUMP (Continued) **1000222616**

OU:	00
Action Code:	FE
Action Name:	5 YEAR
SEQ:	1
Start Date:	2000-09-27 04:00:00
Finish Date:	9/27/2000 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	TV
Action Name:	Partial Del
SEQ:	1
Start Date:	2001-12-13 05:00:00
Finish Date:	12/13/2001 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	RV
Action Name:	RMVL
SEQ:	3
Start Date:	1994-12-16 05:00:00
Finish Date:	4/27/1995 4:00:00 AM
Qual:	S
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	TG
Action Name:	TA GRANT
SEQ:	1
Start Date:	1998-02-17 05:00:00
Finish Date:	11/30/2006 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149

ASBESTOS DUMP (Continued) **1000222616**

Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	AR
Action Name:	ADMIN REC
SEQ:	5
Start Date:	1996-06-20 04:00:00
Finish Date:	7/12/2010 5:00:00 AM
Qual:	V
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	MA
Action Name:	ST COOP
SEQ:	1
Start Date:	1988-09-30 04:00:00
Finish Date:	11/28/2001 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	RO
Action Name:	ROD
SEQ:	2
Start Date:	1991-09-27 04:00:00
Finish Date:	9/27/1991 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	RD
Action Name:	RD
SEQ:	2
Start Date:	1992-02-10 05:00:00
Finish Date:	5/17/1993 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

ASBESTOS DUMP (Continued) **1000222616**

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	01
Action Code:	RO
Action Name:	ROD
SEQ:	1
Start Date:	1988-07-01 04:00:00
Finish Date:	9/30/1988 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	2
Start Date:	1980-12-01 05:00:00
Finish Date:	8/1/1982 4:00:00 AM
Qual:	H
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	DS
Action Name:	DISCVRY
SEQ:	1
Start Date:	1982-08-01 04:00:00
Finish Date:	8/1/1982 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	03
Action Code:	LX
Action Name:	FF RD
SEQ:	1
Start Date:	1998-06-18 04:00:00
Finish Date:	6/14/1999 4:00:00 AM

ASBESTOS DUMP (Continued) **1000222616**

Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	03
Action Code:	RO
Action Name:	ROD
SEQ:	3
Start Date:	1998-09-08 04:00:00
Finish Date:	9/8/1998 4:00:00 AM
Qual:	R
Current Action Lead:	Fed Fac
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	03
Action Code:	OM
Action Name:	OM
SEQ:	3
Start Date:	1999-09-29 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	03
Action Code:	LY
Action Name:	FF RA
SEQ:	1
Start Date:	1998-07-29 04:00:00
Finish Date:	9/29/1999 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	03
Action Code:	LV
Action Name:	FF RV

ASBESTOS DUMP (Continued) **1000222616**

SEQ:	1
Start Date:	1997-08-29 04:00:00
Finish Date:	10/6/1997 4:00:00 AM
Qual:	S
Current Action Lead:	Fed Fac
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	03
Action Code:	LV
Action Name:	FF RV
SEQ:	2
Start Date:	1998-02-25 05:00:00
Finish Date:	6/30/1998 4:00:00 AM
Qual:	C
Current Action Lead:	Fed Fac
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	01
Action Code:	BE
Action Name:	PRP RD
SEQ:	1
Start Date:	1989-10-20 04:00:00
Finish Date:	9/30/1992 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Ovrsght
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	EL
Action Name:	PRP CR
SEQ:	1
Start Date:	1984-01-10 05:00:00
Finish Date:	1/31/1991 5:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Ovrsght
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N

ASBESTOS DUMP (Continued) **1000222616**

OU:	01
Action Code:	BD
Action Name:	PRP RI/FS
SEQ:	1
Start Date:	1985-04-04 06:00:00
Finish Date:	9/30/1988 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Ovrsght
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	PJ
Action Name:	RP EM REM
SEQ:	1
Start Date:	2015-06-17 04:00:00
Finish Date:	6/24/2015 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Ovrsght
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	ED
Action Name:	R/H ASMT
SEQ:	1
Start Date:	1991-01-31 05:00:00
Finish Date:	7/5/1991 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Ovrsght
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	02
Action Code:	OM
Action Name:	OM
SEQ:	2
Start Date:	2001-06-30 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	St Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149

ASBESTOS DUMP (Continued) **1000222616**

Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	01
Action Code:	OM
Action Name:	OM
SEQ:	1
Start Date:	2001-09-28 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	St Perf
Region:	02
Site ID:	0200769
EPA ID:	NJD980654149
Site Name:	ASBESTOS DUMP
NPL:	D
FF:	N
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	1980-12-01 05:00:00
Finish Date:	8/1/1982 4:00:00 AM
Qual:	H
Current Action Lead:	St Perf

US ENG CONTROLS:

EPA ID:	NJD980654149
Site ID:	0200769
Name:	ASBESTOS DUMP
Address:	TIFA SQUARE MILLINGTON, NJ 07946
EPA Region:	02
County:	MORRIS
Event Code:	Not reported
Actual Date:	12/31/1998
Contact Name:	Not reported
Contact Phone and Ext:	Not reported
Event Code Description:	Not reported
Action ID:	001
Action Name:	RECORD OF DECISION
Action Completion date:	09/30/1988
Operable Unit:	01
Contaminated Media :	Air
Engineering Control:	Air Monitoring
Contact Name:	Not reported
Contact Phone and Ext:	Not reported
Event Code Description:	Not reported
Action ID:	001
Action Name:	RECORD OF DECISION
Action Completion date:	09/30/1988
Operable Unit:	01
Contaminated Media :	Groundwater

ASBESTOS DUMP (Continued) **1000222616**

Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/30/1988
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Engineering Control, (N.O.S.)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/30/1988
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Impermeable Barrier
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/30/1988
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/30/1988
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Operations & Maintenance (O&M)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/30/1988
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Slope Stabilization
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 001
Action Name: RECORD OF DECISION

ASBESTOS DUMP (Continued) **1000222616**

Action Completion date: 09/30/1988
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Soil Cover
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/30/1988
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Surface Drainage Control
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/30/1988
Operable Unit: 01
Contaminated Media : Surface Water
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 09/27/1991
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 09/27/1991
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Soil Cover
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 09/27/1991
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: Solidification/Stabilization (In-Situ)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

ASBESTOS DUMP (Continued) **1000222616**

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Air
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Sediment
Engineering Control: Dewatering
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Sediment
Engineering Control: Wetlands Replacement
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Soil
Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Soil
Engineering Control: Disposal
Contact Name: Not reported

ASBESTOS DUMP (Continued) **1000222616**

Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Soil
Engineering Control: Excavation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Soil
Engineering Control: Revegetation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Surface Water
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/08/1998
Operable Unit: 03
Contaminated Media : Surface Water
Engineering Control: Surface Water Control
Contact Name: Not reported
Contact Phone and Ext: Not reported
Event Code Description: Not reported

US INST CONTROL:
EPA ID: NJD980654149
Site ID: 0200769
Name: ASBESTOS DUMP
Action Name: RECORD OF DECISION
Address: TIFA SQUARE
MILLINGTON, NJ 07946
EPA Region: 02
County: MORRIS
Event Code: Not reported
Inst. Control: Building, demolition, or excavation regulation
Actual Date: 09/30/1991
Complet. Date: 09/27/1991

ASBESTOS DUMP (Continued) **1000222616**

Operable Unit: 02
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Event Code Description: Not reported

EPA ID: NJD980654149
Site ID: 0200769
Name: ASBESTOS DUMP
Action Name: RECORD OF DECISION
Address: TIFA SQUARE
MILLINGTON, NJ 07946
EPA Region: 02
County: MORRIS
Event Code: Not reported
Inst. Control: Access Restriction, Fencing
Actual Date: 12/31/1998
Complet. Date: 09/08/1998
Operable Unit: 03
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Event Code Description: Not reported

EPA ID: NJD980654149
Site ID: 0200769
Name: ASBESTOS DUMP
Action Name: RECORD OF DECISION
Address: TIFA SQUARE
MILLINGTON, NJ 07946
EPA Region: 02
County: MORRIS
Event Code: Not reported
Inst. Control: Access Restriction, Guards
Actual Date: 12/31/1998
Complet. Date: 09/08/1998
Operable Unit: 03
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Event Code Description: Not reported

EPA ID: NJD980654149
Site ID: 0200769
Name: ASBESTOS DUMP
Action Name: RECORD OF DECISION
Address: TIFA SQUARE
MILLINGTON, NJ 07946
EPA Region: 02
County: MORRIS
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: 12/31/1998
Complet. Date: 09/08/1998
Operable Unit: 03
Contaminated Media : Soil
Contact Name : Not reported

ASBESTOS DUMP (Continued) **1000222616**

Contact Phone and Ext : Not reported
Event Code Description: Not reported

ROD:

Full-text of USEPA Record of Decision(s) is available from EDR.

PRP:

PRP Name:
ANCOR HOLDINGS, INC.
MAJOR, DAVID C.
MAJOR, DAVID C.
MAJOR, JOYCE
MAJOR, JOYCE
NATIONAL GYPSUM COMPANY
NATIONAL GYPSUM COMPANY
NATIONAL GYPSUM COMPANY
NATIONAL GYPSUM COMPANY
TEILMANN, HELENA
TIELMANN, HANS JR.
TIFA LTD
TIFA LTD

ICIS:

Enforcement Action ID:	02-1994-0198
FRS ID:	110009300381
Action Name:	DAVID C. MAJOR/JOYCE MAJOR
Facility Name:	ASBESTOS DUMP
Facility Address:	TIFA SQUARE MILLINGTON, NJ 07946
Enforcement Action Type:	CERCLA 104E5A AO For Access And/Or Info
Facility County:	MORRIS
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	104E5A
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	40.6725
Longitude in Decimal Degrees:	-74.52556
Permit Type Desc:	Not reported
Program System Acronym:	45042
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	02-1994-0197
FRS ID:	110009300381
Action Name:	HANS TIELMANN, JR/HELENA TIELMANN
Facility Name:	ASBESTOS DUMP
Facility Address:	TIFA SQUARE MILLINGTON, NJ 07946
Enforcement Action Type:	CERCLA 104E5A AO For Access And/Or Info
Facility County:	MORRIS
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	104E5A
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	40.6725

ASBESTOS DUMP (Continued) **1000222616**

Longitude in Decimal Degrees:	-74.52556
Permit Type Desc:	Not reported
Program System Acronym:	45042
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported
Enforcement Action ID:	02-1991-0106
FRS ID:	110009300381
Action Name:	NATIONAL GYPSUM - ASBESTOS DUMP NPL SITE
Facility Name:	ASBESTOS DUMP
Facility Address:	TIFA SQUARE MILLINGTON, NJ 07946
Enforcement Action Type:	Bankruptcy
Facility County:	MORRIS
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Judicial
EA Type Code:	BNK
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	40.6725
Longitude in Decimal Degrees:	-74.52556
Permit Type Desc:	Not reported
Program System Acronym:	45042
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported
Enforcement Action ID:	02-1988-0237
FRS ID:	110009300381
Action Name:	NATIONAL GYPSUM CO (ASBESTOS DUMP)
Facility Name:	ASBESTOS DUMP
Facility Address:	TIFA SQUARE MILLINGTON, NJ 07946
Enforcement Action Type:	CERCLA 106 AO For Resp Action/Imm Haz
Facility County:	MORRIS
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	106
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	40.6725
Longitude in Decimal Degrees:	-74.52556
Permit Type Desc:	Not reported
Program System Acronym:	45042
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Facility Name:	ASBESTOS DUMP
Address:	TIFA SQUARE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

Facility Name:	ASBESTOS DUMP
Address:	TIFA SQUARE
Tribal Indicator:	N

ASBESTOS DUMP (Continued) **1000222616**

Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No

ASBESTOS DUMP (Continued) **1000222616**

NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: ASBESTOS DUMP
Address: TIFA SQUARE
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

CONSENT:
EPA ID: NJD980654149
Site ID: Not reported
Case Title: IN RE: NATIONAL GYPSUM COMPANY
Court Num: 390-37214 390-37213
District: Texas, North
Entered Date: 19921104
Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

C34 **MILLINGTON CENTRAL OFFICE** **RCRA NonGen / NLR** **1000285483**
ENE **5 DIVISION AVE** **NJD980649008**
< 1/8 **MILLINGTON, NJ 07946**
0.013 mi.
70 ft. **Site 1 of 11 in cluster C**

Relative: **Higher**

Actual: **271 ft.**

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: MILLINGTON CENTRAL OFFICE
Facility address: 5 DIVISION AVE
MILLINGTON, NJ 07946
EPA ID: NJD980649008
Mailing address: MALIPARDIS RD
CEDAR KNOLLS, NJ 07927
Contact: Not reported
Contact address: MALIPARDIS RD
CEDAR KNOLLS, NJ 07927
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 02
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NJ BELL TELEPHONE CO
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999

MILLINGTON CENTRAL OFFICE (Continued) **1000285483**

Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NJ BELL TELEPHONE CO
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: MILLINGTON CENTRAL OFFICE
Classification: Not a generator, verified

. Waste code: NONE
. Waste name: None

Date form received by agency: 10/24/1980
Site name: MILLINGTON CENTRAL OFFICE
Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D002

MILLINGTON CENTRAL OFFICE (Continued) **1000285483**

. Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 10/22/1991
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

C35 **NEW JERSEY BELL TELEPHONE CO** **NJ UST** **U000358522**
East **59 DIVISION AVE** **N/A**
< 1/8 **LONG HILL TWP, NJ 07946**
0.013 mi.
70 ft. **Site 2 of 11 in cluster C**

Relative:
Higher

Actual:
265 ft.

UST:
Facility ID: 008074

Contact:
Owner Name: Not Identified Not Identified
Organization: Not Identified
Contact Type(UST Reg): Facility Operator
Contact Address (UST Reg): Not reported
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Not reported

Owner Name: JOHN KOELBLE
Organization: NEW JERSEY BELL
Contact Type(UST Reg): Tank Owner
Contact Address (UST Reg): 650 PARK AVE
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): East Orange, NJ 07017

Tanks:
Tank Id: TANK-1
Tank Number: 00E1
Tank Status: **Removed**
Tank Status Date: 10/24/1988
Install Date: 01/01/1984
Tank Contents: Heating Oil (No. 2)
Tank Size: 2000
Tank Compliance: No
Overfill: No
Compliance Monitoring?: No
Overfill Protection: No
Spill Containment: No
Tank Wellhead Protection: Not reported
Tank/Pipe Construction Type: Pipe Other

NEW JERSEY BELL TELEPHONE CO (Continued) **U000358522**

Tank/Pipe Construction Type:	Tank Cathodically protected steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-2
Tank Number:	00E2
Tank Status:	**Removed**
Tank Status Date:	10/24/1988
Install Date:	01/01/1963
Tank Contents:	Light Diesel Fuel (No. 1-D)
Tank Size:	550
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe Other
Tank/Pipe Construction Type:	Tank Cathodically protected steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

D36 **MILLINGTON R BARRETT COMPANY** **NJ HIST LUST** **S104391657**
South **33 STONEHOUSE RD** **N/A**
< 1/8 **MILLINGTON, NJ**
0.015 mi.
81 ft. **Site 1 of 4 in cluster D**

Relative: LUST HIST:
Lower

Case ID:	94-11-08-1245
Lead Program Assigned:	Bureau of Field Operations - Initial Notice Section
Facility Status:	**Case Awaiting Assignment**
UST ID:	0304553
TMS Number:	C94-2057
Remedial Level:	Not reported
Case Manager:	Not reported
Facility Phone:	Not reported
No Further Action:	Not reported
RAW Approved:	Not reported
CEA:	Not reported
Date CEA Lifted:	Not reported
Dead Notice:	Not reported

Actual:
230 ft.

D37 **THE BARRETT CO** **NJ UST** **U002158189**
South **33 STONEHOUSE RD** **N/A**
< 1/8 **LONG HILL TWP, NJ 07946**
0.015 mi.
81 ft. **Site 2 of 4 in cluster D**

Relative: UST:
Lower

Facility ID:	030455

Actual:
230 ft.

Contact:

Owner Name:	Not Identified Not Identified
Organization:	Not Identified

THE BARRETT CO (Continued) **U002158189**

Contact Type(UST Reg): Facility Operator
Contact Address (UST Reg): Not reported
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Not reported

Owner Name: RANDY BARRETT
Organization: RANDY BARRETT
Contact Type(UST Reg): Tank Owner
Contact Address (UST Reg): 33 STONEHOUSE RD
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Millington, NJ 07946

Tanks:

Tank Id: TANK-1
Tank Number: P1
Tank Status: **Removed**
Tank Status Date: 01/01/1994
Install Date: 01/01/1971
Tank Contents: Medium Diesel Fuel (No. 2-D)
Tank Size: 1000
Tank Compliance: No
Overfill: No
Compliance Monitoring?: No
Overfill Protection: No
Spill Containment: No
Tank Wellhead Protection: Not reported
Tank/Pipe Construction Type: Tank Bare steel
Tank/Pipe Construction Type: Pipe Bare steel
Tank/Pipe Monitor: Pipe None
Tank/Pipe Monitor: Tank None

Tank Id: TANK-2
Tank Number: P2
Tank Status: **Removed**
Tank Status Date: 01/01/1994
Install Date: 01/01/1971
Tank Contents: Unleaded Gasoline
Tank Size: 1000
Tank Compliance: No
Overfill: No
Compliance Monitoring?: No
Overfill Protection: No
Spill Containment: No
Tank Wellhead Protection: Not reported
Tank/Pipe Construction Type: Pipe Bare steel
Tank/Pipe Construction Type: Tank Bare steel
Tank/Pipe Monitor: Pipe None
Tank/Pipe Monitor: Tank None

D38 **BARRETT COMPANY** **NJ HIST LUST** **S104391656**
South **33 STONEHOUSE RD** **NJ Release** **N/A**
< 1/8 **MILLINGTON, NJ**
0.015 mi.
81 ft. **Site 3 of 4 in cluster D**

Relative:
Lower

Actual:
230 ft.

LUST HIST:

Case ID:	94-11-07-1524
Lead Program Assigned:	Bureau of Field Operations - Initial Notice Section
Facility Status:	**Case Awaiting Assignment**
UST ID:	0304553
TMS Number:	C94-2057
Remedial Level:	Not reported
Case Manager:	Not reported
Facility Phone:	Not reported
No Further Action:	Not reported
RAW Approved:	Not reported
CEA:	Not reported
Date CEA Lifted:	Not reported
Dead Notice:	Not reported

NJ Release:

Facility Type:	Commercial
Facility Phone:	UNK
Incident Date:	02/06/1996
Incident Time:	ONGO
Trenton Dispatch Log Number:	1972
Case Number:	96-2-6-0813-05
Date Received:	02/06/1996
Nature of Incident:	Citizen
Operator:	SELL
Incident Type:	Not reported
Incident Location:	Not reported
Location:	Facility
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	SOIL CONTAMINATED
Substance Type:	Solid
Substance Identity:	Unknown
CAS Number:	Not reported
A310 Letter:	Yes
TCPA Chemical:	No
Hazrds Material:	Unknown
COMU:	1430
Ref. Code:	101
Amt Released:	UNK
Contained:	No
Release Type:	Intermittent
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No

BARRETT COMPANY (Continued) **S104391656**

Contamination of:	Land
Receiving Water:	Not reported
Status at Spill:	CALLER STATED THAT SOIL IS CONTAMINATED ALL OVER FACILITY.
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Yes
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	PASSAIC TWP
Local Municipality Title:	DISP 309
Local Municipality Telephone:	908-647-1800
Local Municipality Date:	02/06/1996
Local Municipality Time:	0818
Incident Description:	Soil Contamination
Incident Name:	Not reported
Incident Referred To:	DRPSR
Incident Region:	BFO-CAS
Incident Telephone:	Faxed,Mailed
Incident Date:	02/06/1996
Incident time:	Not reported
Incident ITM:	B
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	Not reported
Reporter Type:	Not reported
Reporter Name:	Not reported
Reporter Title:	Not reported
Reporter Org:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Known

BARRETT COMPANY (Continued) **S104391656**

Responsible Party Name:	BARRETT COMPANY
Responsible Party Contact:	UNK
Responsible Party Title:	Not reported
Responsible Party Phone:	UNK
Responsible Party Street:	33 STONEHOUSE RD
Responsible Party County:	MORRIS
Responsible Party City,St,Zip:	MILLINGTON, NJ
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

C39 **VERIZON VACANT LAND** **NJ UST** **U004069000**
East **53 DIVISION AVE** **N/A**
< 1/8 **LONG HILL TWP, NJ 07946**
0.016 mi.
86 ft. **Site 3 of 11 in cluster C**

Relative:
Higher

Actual:
266 ft.

UST:

Facility ID:	299520

Contact:

Owner Name:	STEVEN BALDISSEROTTO
Organization:	VERIZON NEW JERSEY INC
Contact Type(UST Reg):	Facility Operator
Contact Address (UST Reg):	8 HAMBURG TPKE
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Riverdale, NJ 07457

Owner Name:	STEVEN BALDISSEROTTO
Organization:	VERIZON NEW JERSEY INC
Contact Type(UST Reg):	Tank Owner
Contact Address (UST Reg):	8 HAMBURG TPKE
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Riverdale, NJ 07457

Tanks:

Tank Id:	TANK-1
Tank Number:	00E1
Tank Status:	**Removed**
Tank Status Date:	11/15/2006
Install Date:	01/01/1980
Tank Contents:	Heating Oil (No. 2)
Tank Size:	550
Tank Compliance:	No
Overfill:	Not reported
Compliance Monitoring?:	No
Overfill Protection:	Not reported
Spill Containment:	Not reported
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-2

VERIZON VACANT LAND (Continued) **U004069000**

Tank Number:	00E2
Tank Status:	**Removed**
Tank Status Date:	11/15/2006
Install Date:	01/01/1980
Tank Contents:	Medium Diesel Fuel (No. 2-D)
Tank Size:	550
Tank Compliance:	No
Overfill:	Not reported
Compliance Monitoring?:	No
Overfill Protection:	Not reported
Spill Containment:	Not reported
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

C40 **A.D.RUNYON CO** **NJ HIST LUST** **S104394010**
ENE **45 DIVISION AVENUE** **N/A**
< 1/8 **MILLINGTON, NJ**
0.016 mi.
86 ft. **Site 4 of 11 in cluster C**

Relative:
Higher

Actual:
268 ft.

LUST HIST:

Case ID:	98-11-30-1136-07
Lead Program Assigned:	Bureau of Underground Storage Tanks
Facility Status:	**Assigned to a Program**
UST ID:	0046361
TMS Number:	N98-1121
Remedial Level:	Site has confirmed soil and ground water contamination.
Case Manager:	Judy Bayard
Facility Phone:	(609) 633-0836
No Further Action:	Not reported
RAW Approved:	Y
CEA:	Not reported
Date CEA Lifted:	Not reported
Dead Notice:	Not reported

C41 **AD RUNYON CO** **NJ SHWS** **U000355855**
ENE **45 DIVISION AVE** **NJ HIST HWS** **N/A**
< 1/8 **LONG HILL TWP, NJ 07946** **NJ HIST LUST**
0.016 mi. **NJ UST**
86 ft. **Site 5 of 11 in cluster C** **NJ INST CONTROL**
NJ AIRS

Relative:
Higher

Actual:
268 ft.

SHWS:

Site ID:	3524
Status:	Closed
Home Owner:	No
PI Number:	004636

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

AD RUNYON CO (Continued) **U000355855**

HIST SHWS:

Case Status:	**Active**
Status Date:	9/24/2001
Case ID:	004636
Contact:	BSCM
Sub Section Label:	A: Sites with On-Site Sources of Contamination
Site Municipality:	1430
Remedial Level Code:	C2
Classification exception area dt:	None
Classification exception area dt:	Not reported
Deed Notice Status:	None
Deed Notice Date:	Not reported
Engineering Control Status:	None
Engineering Control Date:	Not reported
National Priorities List Status:	Not reported
National Priorities List Date:	Not reported
X Coordinate:	485803
Y Coordinate:	669866
Coordinate System:	NJ State Plane (NAD83) - USFEET

LUST HIST:

Case ID:	95-03-21-1148
Lead Program Assigned:	Bureau of Field Operations - Initial Notice Section
Facility Status:	**Site Issued Letter of No Further Action for Area(s) Of Concern**
UST ID:	0046361
TMS Number:	C95-0172
Remedial Level:	Site has 1 area of concern with 1 media of concern.
Case Manager:	Stuart Friedman
Facility Phone:	(609) 292-9208
No Further Action:	3/19/1996 0:00:00
RAW Approved:	Not reported
CEA:	Not reported
Date CEA Lifted:	Not reported
Dead Notice:	Not reported

UST:

Facility ID:	004636

Contact:

Owner Name:	Not Identified Not Identified
Organization:	NANCY MOORE-SANDERS
Contact Type(UST Reg):	Facility Operator
Contact Address (UST Reg):	45 DIVISION AVE
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Millington, NJ 07946

Owner Name:	NANCY MOORE- SANDERS
Organization:	AD RUNYON CO
Contact Type(UST Reg):	Tank Owner
Contact Address (UST Reg):	45 DIVISION AVE
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Millington, NJ 07946

AD RUNYON CO (Continued) **U000355855**

Tanks:

Tank Id:	TANK-1
Tank Number:	C
Tank Status:	**Removed**
Tank Status Date:	03/30/1999
Install Date:	10/01/1973
Tank Contents:	Heating Oil (No. 2)
Tank Size:	30000
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Tank Manual Tank Gauging

Tank Id:	TANK-2
Tank Number:	D
Tank Status:	**Removed**
Tank Status Date:	03/30/1999
Install Date:	10/01/1973
Tank Contents:	Heating Oil (No. 2)
Tank Size:	30000
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Tank Manual Tank Gauging

Tank Id:	TANK-3
Tank Number:	E3
Tank Status:	**Removed**
Tank Status Date:	11/30/1998
Install Date:	01/01/1944
Tank Contents:	Leaded Gasoline
Tank Size:	550
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Tank Tightness Test

Tank Id:	TANK-4
Tank Number:	E4

AD RUNYON CO (Continued) **U000355855**

Tank Status:	**Removed**
Tank Status Date:	11/30/1998
Install Date:	01/01/1944
Tank Contents:	Leaded Gasoline
Tank Size:	1000
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Monitor:	Tank Tightness Test

Tank Id:	TANK-5
Tank Number:	E5
Tank Status:	**Removed**
Tank Status Date:	03/15/1995
Install Date:	01/01/1944
Tank Contents:	Leaded Gasoline
Tank Size:	1000
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank Manual Tank Gauging

Tank Id:	TANK-6
Tank Number:	E6
Tank Status:	**Removed**
Tank Status Date:	03/15/1995
Install Date:	01/01/1944
Tank Contents:	Light Diesel Fuel (No. 1-D)
Tank Size:	550
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank Manual Tank Gauging

NJ INSTITUTIONAL CONTROL:

Facility ID:	3524
Date Established (SI):	05/02/2005
Date Closed/Lifted (SI):	02/03/2015

AD RUNYON CO (Continued) **U000355855**

PI Number: 004636
PI Name: AD RUNYON CO
CEA Description (SI): Benzene
CEA Case Track #: 5610
CEA Duration: Not reported
Intermediate Durations: Yes

Facility ID: 3524
Date Established (SI): 05/02/2005
Date Closed/Lifted (SI): 02/03/2015
PI Number: 004636
PI Name: AD RUNYON CO
CEA Description (SI): Benzene
CEA Case Track #: 5611
CEA Duration: Not reported
Intermediate Durations: Yes

Facility ID: 3524
Date Established (SI): 05/02/2005
Date Closed/Lifted (SI): 02/03/2015
PI Number: 004636
PI Name: AD RUNYON CO
CEA Description (SI): Benzene
CEA Case Track #: Not reported
CEA Duration: Not reported
Intermediate Durations: Yes

AIRS:
Emission Year: Not reported
Facility Number: 25357
NAICS Code: Not reported
Pollutant Name: Not reported
Tons/Year lbs/Year For Taps 1000 Tons/Year For CO2: Not reported
Tons/Season (5/1-9/30): Not reported
Lbs/Day Peak Ozone Season (6/1-8/31): Not reported
Lbs/Day Co-season (12/1-2/31): Not reported
Permit of Emission: Not reported
X Coordinate: 485803
Y Coordinate: 669866
Coordinate Units: NJ State Plane (NAD83) - USFEET
Coordinate Type: GPS
Active Number: GEN010001
Active Type Description: (GP-008) Site Remediation for Gasoline Contamination
Document Status: Expired
Expiration Date: 09/29/2016
Active Flag: Y

Emission Year: Not reported
Facility Number: 25357
NAICS Code: Not reported
Pollutant Name: Not reported
Tons/Year lbs/Year For Taps 1000 Tons/Year For CO2: Not reported
Tons/Season (5/1-9/30): Not reported
Lbs/Day Peak Ozone Season (6/1-8/31): Not reported
Lbs/Day Co-season (12/1-2/31): Not reported
Permit of Emission: Not reported
X Coordinate: 485803

AD RUNYON CO (Continued) **U000355855**

Y Coordinate:	669866
Coordinate Units:	NJ State Plane (NAD83) - USFEET
Coordinate Type:	GPS
Active Number:	PCP960001
Active Type Description:	Grandfathered Equipment
Document Status:	Grandfathered
Expiration Date:	12/31/2021
Active Flag:	Y
Emission Year:	Not reported
Facility Number:	25357
NAICS Code:	Not reported
Pollutant Name:	Not reported
Tons/Year lbs/Year For Taps 1000 Tons/Year For CO2:	Not reported
Tons/Season (5/1-9/30):	Not reported
Lbs/Day Peak Ozone Season (6/1-8/31):	Not reported
Lbs/Day Co-season (12/1-2/31):	Not reported
Permit of Emission:	Not reported
X Coordinate:	485803
Y Coordinate:	669866
Coordinate Units:	NJ State Plane (NAD83) - USFEET
Coordinate Type:	GPS
Active Number:	PCP960005
Active Type Description:	Grandfathered Equipment
Document Status:	Grandfathered
Expiration Date:	12/31/2021
Active Flag:	Y
Emission Year:	Not reported
Facility Number:	25357
NAICS Code:	Not reported
Pollutant Name:	Not reported
Tons/Year lbs/Year For Taps 1000 Tons/Year For CO2:	Not reported
Tons/Season (5/1-9/30):	Not reported
Lbs/Day Peak Ozone Season (6/1-8/31):	Not reported
Lbs/Day Co-season (12/1-2/31):	Not reported
Permit of Emission:	Not reported
X Coordinate:	485803
Y Coordinate:	669866
Coordinate Units:	NJ State Plane (NAD83) - USFEET
Coordinate Type:	GPS
Active Number:	PCP960003
Active Type Description:	Grandfathered Equipment
Document Status:	Grandfathered
Expiration Date:	12/31/2021
Active Flag:	Y
Emission Year:	Not reported
Facility Number:	25357
NAICS Code:	Not reported
Pollutant Name:	Not reported
Tons/Year lbs/Year For Taps 1000 Tons/Year For CO2:	Not reported
Tons/Season (5/1-9/30):	Not reported
Lbs/Day Peak Ozone Season (6/1-8/31):	Not reported
Lbs/Day Co-season (12/1-2/31):	Not reported
Permit of Emission:	Not reported
X Coordinate:	485803

AD RUNYON CO (Continued) **U000355855**

Y Coordinate:	669866
Coordinate Units:	NJ State Plane (NAD83) - USFEET
Coordinate Type:	GPS
Active Number:	PCP960004
Active Type Description:	Grandfathered Equipment
Document Status:	Grandfathered
Expiration Date:	12/31/2021
Active Flag:	Y
Emission Year:	Not reported
Facility Number:	25357
NAICS Code:	Not reported
Pollutant Name:	Not reported
Tons/Year lbs/Year For Taps 1000 Tons/Year For CO2:	Not reported
Tons/Season (5/1-9/30):	Not reported
Lbs/Day Peak Ozone Season (6/1-8/31):	Not reported
Lbs/Day Co-season (12/1-2/31):	Not reported
Permit of Emission:	Not reported
X Coordinate:	485803
Y Coordinate:	669866
Coordinate Units:	NJ State Plane (NAD83) - USFEET
Coordinate Type:	GPS
Active Number:	PCP960002
Active Type Description:	Grandfathered Equipment
Document Status:	Grandfathered
Expiration Date:	12/31/2021
Active Flag:	Y

D42 **MILLINGTON QUARRY INC** **NJ UST** **U000356530**
SSE **STONEHOUE RD** **N/A**
< 1/8 **BERNARDS TWP, NJ 07946**
0.023 mi.
122 ft. **Site 4 of 4 in cluster D**

Relative:
Higher

Actual:
244 ft.

UST:

Facility ID:	005602

Contact:

Owner Name:	Not Identified Not Identified
Organization:	Not Identified
Contact Type(UST Reg):	Facility Operator
Contact Address (UST Reg):	Not reported
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Not reported
Owner Name:	PLANIT ENGINEER
Organization:	MILLINGTON QUARRY INC
Contact Type(UST Reg):	Tank Owner
Contact Address (UST Reg):	PO BOX 487
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Millington, NJ 07946

Tanks:

Tank Id:	TANK-1
Tank Number:	E1
Tank Status:	**Removed**

MILLINGTON QUARRY INC (Continued) **U000356530**

Tank Status Date:	11/01/1989
Install Date:	01/01/1983
Tank Contents:	Medium Diesel Fuel (No. 2-D)
Tank Size:	20000
Tank Compliance:	No
Overfill:	Yes
Compliance Monitoring?:	No
Overfill Protection:	Yes
Spill Containment:	Yes
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-2
Tank Number:	E2
Tank Status:	**Removed**
Tank Status Date:	11/01/1989
Install Date:	01/01/1983
Tank Contents:	Medium Diesel Fuel (No. 2-D)
Tank Size:	20000
Tank Compliance:	No
Overfill:	Yes
Compliance Monitoring?:	No
Overfill Protection:	Yes
Spill Containment:	Yes
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-3
Tank Number:	E3
Tank Status:	**Removed**
Tank Status Date:	11/01/1989
Install Date:	01/01/1983
Tank Contents:	Medium Diesel Fuel (No. 2-D)
Tank Size:	20000
Tank Compliance:	No
Overfill:	Yes
Compliance Monitoring?:	No
Overfill Protection:	Yes
Spill Containment:	Yes
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-4
Tank Number:	E6
Tank Status:	**Removed**

MILLINGTON QUARRY INC (Continued) **U000356530**

Tank Status Date:	11/01/1989
Install Date:	01/01/1990
Tank Contents:	Waste Oil
Tank Size:	0
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-5
Tank Number:	0004
Tank Status:	**Removed**
Tank Status Date:	11/01/1989
Install Date:	01/01/1983
Tank Contents:	Unleaded Gasoline
Tank Size:	20000
Tank Compliance:	No
Overfill:	Yes
Compliance Monitoring?:	No
Overfill Protection:	Yes
Spill Containment:	Yes
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-6
Tank Number:	0005
Tank Status:	**Removed**
Tank Status Date:	11/01/1989
Install Date:	01/01/1983
Tank Contents:	Leaded Gasoline
Tank Size:	10000
Tank Compliance:	No
Overfill:	Yes
Compliance Monitoring?:	No
Overfill Protection:	Yes
Spill Containment:	Yes
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

E43 **PALUMBO ASSOCIATES INC** **RCRA NonGen / NLR** **1000426054**
ESE **85 DIVISION AVE** **NY MANIFEST** **NJD098258551**
< 1/8 **MILLINGTON, NJ 07946**
0.027 mi.
145 ft. **Site 1 of 3 in cluster E**

Relative:
Higher

Actual:
258 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	PALUMBO ASSOCIATES INC
Facility address:	85 DIVISION AVE MILLINGTON, NJ 07946-1316
EPA ID:	NJD098258551
Mailing address:	DIVISION AVE MILLINGTON, NJ 07946
Contact:	Not reported
Contact address:	DIVISION AVE MILLINGTON, NJ 07946
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	02
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	GARY PALUMBO
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	GARY PALUMBO
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No

PALUMBO ASSOCIATES INC (Continued) **1000426054**

Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: PALUMBO ASSOCIATES INC
Classification: Not a generator, verified

Date form received by agency: 06/13/1986
Site name: PALUMBO ASSOCIATES INC
Classification: Large Quantity Generator

. Waste code: X003
. Waste name: OTHER STATE REGULATED WASTES [i.e., DIESEL FUEL, GASOLINE AND HOME HEATING OIL]

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 06/06/1989
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

NY MANIFEST:
Country: USA
EPA ID: NJD098258551
Facility Status: Not reported
Location Address 1: 85 DIVISION AVENUE
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: MILLINGTON
Location State: NJ
Location Zip: 07946
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NJD098258551
Mailing Name: PALUMBO ASSOCIATES INCORPORATED
Mailing Contact: PALUMBO ASSOCIATES INCORPORATED
Mailing Address 1: 85 DIVISION AVENUE
Mailing Address 2: Not reported
Mailing City: MILLINGTON
Mailing State: NJ
Mailing Zip: 07946
Mailing Zip 4: Not reported
Mailing Country: USA

PALUMBO ASSOCIATES INC (Continued) **1000426054**

Mailing Phone: 2016475252

NY MANIFEST:

Document ID:	NYA2114847
Manifest Status:	C
seq:	Not reported
Year:	1986
Trans1 State ID:	NJSWAS751
Trans2 State ID:	Not reported
Generator Ship Date:	06/18/1986
Trans1 Recv Date:	06/18/1986
Trans2 Recv Date:	/ /
TSD Site Recv Date:	06/18/1986
Part A Recv Date:	06/25/1986
Part B Recv Date:	06/25/1986
Generator EPA ID:	NJD098258551
Trans1 EPA ID:	NJD980650196
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD980647283
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	X726 - MISC OIL/GAS PRODUCTS (NJ ONLY)
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	03500
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	TT - Cargo tank, tank trucks
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100

Click this hyperlink while viewing on your computer to access
-1 additional NY MANIFEST: record(s) in the EDR Site Report.

E44
ESE
< 1/8
0.027 mi.
145 ft.

M & R CITGO STATION
85 DIVISION AVE
MILLINGTON, NJ 07946

Site 2 of 3 in cluster E

EDR Hist Auto **1020147127**
N/A

Relative:
Higher

Actual:
258 ft.

EDR Hist Auto

Year:	Name:	Type:
1969	M & R CITGO STATION	Gasoline Service Stations
1970	M & R CITGO STATION	Gasoline Service Stations
1971	M & R CITGO STATION	Gasoline Service Stations
1972	M & R CITGO STATION	Gasoline Service Stations
1973	M & R CITGO STATION	Gasoline Service Stations
1974	M & R CITGO STATION	Gasoline Service Stations
1975	M & R CITGO STATION	Gasoline Service Stations
1976	M & R CITGO STATION	Gasoline Service Stations
1976	MILLINGTON SERVICE CENTER INC	General Automotive Repair Shops
1977	MILLINGTON SERVICE CENTER INC	General Automotive Repair Shops
1978	MILLINGTON SERVICE CENTER INC	General Automotive Repair Shops
1979	MILLINGTON SERVICE CENTER INC	General Automotive Repair Shops
1985	DILLON JOSEPH R INC	General Automotive Repair Shops
1986	DILLON JOSEPH R INC	General Automotive Repair Shops
1991	DILLON JOSEPH R INC	General Automotive Repair Shops
1992	DILLON JOSEPH R INC	General Automotive Repair Shops
1993	WHITMORES AUTO REPAIR	General Automotive Repair Shops
1993	DILLON JOSEPH R INC	General Automotive Repair Shops
1994	WHITMORES AUTO REPAIR	General Automotive Repair Shops
1995	WHITMORES AUTO REPAIR	General Automotive Repair Shops
1996	WHITMORES AUTO REPAIR	General Automotive Repair Shops
1997	WHITMORES AUTO REPAIR	General Automotive Repair Shops
1998	WHITMORES AUTO REPAIR	General Automotive Repair Shops
1999	WHITMORES AUTO REPAIR	General Automotive Repair Shops
2000	WHITMORES AUTO REPAIR	General Automotive Repair Shops

E45
ESE
< 1/8
0.027 mi.
145 ft.

85A DIVISION AVENUE
85A DIVISION AVE
LONG HILL TWP, NJ 07946

Site 3 of 3 in cluster E

NJ UST **U003947768**
N/A

Relative:
Higher

Actual:
258 ft.

UST:
Facility ID: 207472

Contact:
Owner Name: JOSEPH R DILLON
Organization: JOSEPH R DILLON
Contact Type(UST Reg): Facility Operator
Contact Address (UST Reg): 44 OVERLOOK AVE
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Basking Ridge, NJ 07920

Owner Name: JOSEPH R DILLON
Organization: JOSEPH R DILLON
Contact Type(UST Reg): Tank Owner
Contact Address (UST Reg): 44 OVERLOOK AVE
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Basking Ridge, NJ 07920

85A DIVISION AVENUE (Continued) **U003947768**

Tanks:

Tank Id:	TANK-2
Tank Number:	1
Tank Status:	**Removed**
Tank Status Date:	08/18/2005
Install Date:	01/01/1984
Tank Contents:	Waste Oil
Tank Size:	550
Tank Compliance:	No
Overfill:	Yes
Compliance Monitoring?:	Yes
Overfill Protection:	Yes
Spill Containment:	Not reported
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Monitor:	Pipe Other: No Piping Exists
Tank/Pipe Monitor:	Tank Inventory Control
Tank/Pipe Monitor:	Tank Statistical Inventory Reconciliation

C46 **CAMICAO ENTERPRISES** **EDR Hist Cleaner** **1019947772**
NE **1911 LONG HILL RD** **N/A**
< 1/8 **MILLINGTON, NJ 07946**
0.041 mi.
219 ft. **Site 6 of 11 in cluster C**

Relative: EDR Hist Cleaner
Higher

Actual: **283 ft.**

Year:	Name:	Type:
2000	KAREN MEEKO ENTERPRISES	Drycleaning Plants, Except Rugs, NEC
2001	CAMICAO ENTERPRISES	Drycleaning Plants, Except Rugs, NEC
2002	CAMICAO ENTERPRISES	Drycleaning Plants, Except Rugs, NEC
2003	CAMICAO ENTERPRISES	Drycleaning Plants, Except Rugs, NEC
2004	CAMICAO ENTERPRISES	Drycleaning Plants, Except Rugs, NEC
2009	CAMICAO ENTERPRISES	Drycleaning Plants, Except Rugs, NEC
2010	CAMICAO ENTERPRISES	Drycleaning Plants, Except Rugs, NEC

C47 **LONG HILL AUTO SERVICE INC** **EDR Hist Auto** **1020378430**
NE **1905 LONG HILL RD** **N/A**
< 1/8 **MILLINGTON, NJ 07946**
0.043 mi.
229 ft. **Site 7 of 11 in cluster C**

Relative: EDR Hist Auto
Higher

Actual: **282 ft.**

Year:	Name:	Type:
1969	TRIMMER & HAAS	Gasoline Service Stations
1970	TRIMMER & HAAS	Gasoline Service Stations
1971	TRIMMER & HAAS	Gasoline Service Stations
1972	TRIMMER & HAAS	Gasoline Service Stations
1973	TRIMMER & HAAS	Gasoline Service Stations
1974	TRIMMER & HAAS	Gasoline Service Stations
1975	TRIMMER & HAAS	General Automotive Repair Shops
1976	TRIMMER & HAAS	General Automotive Repair Shops
1977	CAMP AUTOMOTIVE INC	General Automotive Repair Shops
1977	TRIMMER & HAAS	General Automotive Repair Shops

LONG HILL AUTO SERVICE INC (Continued) **1020378430**

1978	TRIMMER & HAAS	General Automotive Repair Shops
1978	CAMP AUTOMOTIVE INC	General Automotive Repair Shops
1979	CAMP AUTOMOTIVE INC	General Automotive Repair Shops
1979	TRIMMER & HAAS	General Automotive Repair Shops
1980	TRIMMER & HAAS	General Automotive Repair Shops
1982	FAIRVIEW AUTOMOTIVE	General Automotive Repair Shops
1982	TRIMMER & HAAS	General Automotive Repair Shops
1983	FAIRVIEW AUTOMOTIVE	General Automotive Repair Shops
1983	TRIMMER & HAAS	General Automotive Repair Shops
1985	FAIRVIEW AUTOMOTIVE	General Automotive Repair Shops
1986	FAIRVIEW AUTOMOTIVE	General Automotive Repair Shops
1987	FAIRVIEW AUTOMOTIVE	General Automotive Repair Shops
1988	FAIRVIEW AUTOMOTIVE	General Automotive Repair Shops
1989	FAIRVIEW AUTOMOTIVE	General Automotive Repair Shops
1989	LONG HILL AUTO SERVICE	General Automotive Repair Shops
1991	LONG HILL AUTO SERVICE	General Automotive Repair Shops
1992	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
1993	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
1994	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
1995	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
1996	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
1997	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
1998	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
1999	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2000	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2001	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2002	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2003	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2004	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2005	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2006	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2006	TRIMMER HAAS GARAGE	General Automotive Repair Shops
2007	TRIMMER HAAS GARAGE	General Automotive Repair Shops
2007	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2008	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2008	TRIMMER HAAS GARAGE	General Automotive Repair Shops
2009	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2009	TRIMMER HAAS GARAGE	General Automotive Repair Shops
2010	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2011	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2012	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2013	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops
2014	LONG HILL AUTO SERVICE INC	General Automotive Repair Shops

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C48 **MILLINGTON AUTO BODY INC** **NJ MANIFEST** **S117039913**
NE **1905 LONG HILL RD** **N/A**
< 1/8 **MILLINGTON, NJ 07946**
0.043 mi.
229 ft. **Site 8 of 11 in cluster C**

Relative: **Higher**
Actual: **282 ft.**

NJ MANIFEST:

EPA Id:	NJX000331363
Mail Address:	1905 LONG HILL RD
Mail City/State/Zip:	MILLINGTON 07946
Facility Phone:	9086479474
Emergency Phone:	Not reported
Contact:	ALBERT FERRARO
Comments:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

SIC Code:	Not reported
County:	14
Municipal:	30
Previous EPA Id:	Not reported
Gen Flag:	X
Trans Flag:	Not reported
TSDF Flag:	Not reported
Name Change:	Not reported
Date Change:	Not reported

Manifest:

Manifest Number:	NJA5319170
EPA ID:	NJX000331363
Date Shipped:	03/24/2006
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	03/24/2006
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	03/24/2006
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	04130621
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Manifest Number:	000020810VES
EPA ID:	NJX000331363
Date Shipped:	04/02/2007
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	04/02/2007
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	04/02/2007
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H14
Quantity:	400 P

Manifest Number:	NJA5008028
EPA ID:	NJX000331363
Date Shipped:	04/19/2004
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	04/19/2004
Date Trans2 Transported Waste:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	04/22/2004
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	05100425
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Manifest Number:	NJA5021449
EPA ID:	NJX000331363
Date Shipped:	07/15/2004
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	07/15/2004
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	07/21/2004
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	08090422
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported
Manifest Number:	NJA5319442
EPA ID:	NJX000331363
Date Shipped:	06/22/2006
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	06/22/2006
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	06/22/2006
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	08030621
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported
Manifest Number:	NJA5265038
EPA ID:	NJX000331363
Date Shipped:	11/22/2005
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	11/22/2005
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	11/22/2005
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	02140622
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Manifest Number:	000111828VES
EPA ID:	NJX000331363
Date Shipped:	08/27/2007
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	08/27/2007
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	08/27/2007
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H14
Quantity:	400 P

Manifest Number:	NJA5055308
EPA ID:	NJX000331363
Date Shipped:	01/14/2004
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	01/14/2004
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	01/21/2004
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	03080421
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported
Manifest Number:	NJA4131998
EPA ID:	NJX000331363
Date Shipped:	12/16/2004
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	12/16/2004
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	12/21/2004
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	01280525
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported
Manifest Number:	NJA5021911
EPA ID:	NJX000331363
Date Shipped:	04/13/2005
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	04/13/2005
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	04/13/2005
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	05190522
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Manifest Number:	NJA5264756
EPA ID:	NJX000331363
Date Shipped:	08/08/2005
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	NJD000692061
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	08/08/2005
Date Trans2 Transported Waste:	08/17/2005
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported

MILLINGTON AUTO BODY INC (Continued) **S117039913**

Date TSDF Received Waste:	08/18/2005
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	09130521
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

C49 **TRIMMERT HAAS** **NJ UST** **U000368788**
NE **1905 LONG HILL RD** **N/A**
< 1/8 **LONG HILL TWP, NJ 07946**
0.043 mi.
229 ft. **Site 9 of 11 in cluster C**

Relative:
Higher

Actual:
282 ft.

UST:

Facility ID:	027171

Contact:

Owner Name:	Not Identified Not Identified
Organization:	Not Identified
Contact Type(UST Reg):	Facility Operator
Contact Address (UST Reg):	Not reported
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Not reported
Owner Name:	JOHN J MALONEY
Organization:	KIMBER PETROLEUM CORP
Contact Type(UST Reg):	Tank Owner
Contact Address (UST Reg):	333 MAIN ST
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Madison, NJ 07940

Tanks:

Tank Id:	TANK-1
Tank Number:	0001
Tank Status:	**Removed**
Tank Status Date:	01/01/1988
Install Date:	01/01/1988
Tank Contents:	Unleaded Gasoline
Tank Size:	3000
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No

TRIMMERT HAAS (Continued) **U000368788**

Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe CONVERSION (NON-NULLABLE)
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-2
Tank Number:	0002
Tank Status:	**Removed**
Tank Status Date:	01/01/1988
Install Date:	01/01/1988
Tank Contents:	Unleaded Gasoline
Tank Size:	3000
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Pipe CONVERSION (NON-NULLABLE)
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

C50 **LONG HILL AUTO SERVICE** **RCRA NonGen / NLR** **1000692871**
NE **1905 LONGHILL RD** **NJD986620003**
< 1/8 **MILLINGTON, NJ 07946**
0.043 mi.
229 ft. **Site 10 of 11 in cluster C**

Relative:
Higher

Actual:
282 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	LONG HILL AUTO SERVICE
Facility address:	1905 LONGHILL RD MILLINGTON, NJ 07946
EPA ID:	NJD986620003
Mailing address:	LONGHILL RD MILLINGTON, NJ 07946
Contact:	Not reported
Contact address:	LONGHILL RD MILLINGTON, NJ 07946
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	02
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	BOB ARLOTTA
Owner/operator address:	11 WALNUT DR PINEBROOK, NJ 07058
Owner/operator country:	US
Owner/operator telephone:	201-808-6573
Owner/operator email:	Not reported
Owner/operator fax:	Not reported

LONG HILL AUTO SERVICE (Continued) **1000692871**

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: BOB ARLOTTA
Owner/operator address: 11 WALNUT DR
PINEBROOK, NJ 07058
Owner/operator country: US
Owner/operator telephone: 201-808-6573
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: LONG HILL AUTO SERVICE
Classification: Not a generator, verified

. Waste code: NONE
. Waste name: None

Date form received by agency: 11/14/1991
Site name: LONG HILL AUTO SERVICE
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

LONG HILL AUTO SERVICE (Continued) **1000692871**

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

C51 **MILLINGTON AUTO BODY INC** **RCRA NonGen / NLR** **1000285478**
NE **1905 LONG HILL RD** **US AIRS** **NJD101251676**
< 1/8 **MILLINGTON, NJ 07946** **FINDS**
0.043 mi. **ECHO**
229 ft. **Site 11 of 11 in cluster C** **NJ AIRS**
NJ MANIFEST
Relative:
Higher
Actual:
282 ft.

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: MILLINGTON AUTO BODY INC
Facility address: 1905 LONG HILL RD
MILLINGTON, NJ 07946-1346
EPA ID: NJD101251676
Mailing address: LONG HILL RD
MILLINGTON, NJ 07946
Contact: Not reported
Contact address: LONG HILL RD
MILLINGTON, NJ 07946
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 02
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: ALBERT FERRARO MARK ALFANO
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: ALBERT FERRARO MARK ALFANO
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: MILLINGTON AUTO BODY INC
Classification: Not a generator, verified

Date form received by agency: 02/10/1994
Site name: MILLINGTON AUTO BODY
Classification: Large Quantity Generator

Date form received by agency: 02/16/1992
Site name: MILLINGTON AUTO BODY
Classification: Small Quantity Generator

Date form received by agency: 09/10/1984
Site name: MILLINGTON AUTO BODY INC
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/12/1995
Date achieved compliance: 01/05/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Enforcement action date: 12/12/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 05/21/2003
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/05/1996
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 01/05/1996
Evaluation lead agency: State

Evaluation date: 12/12/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/05/1996
Evaluation lead agency: State

US AIRS MINOR:
Envid: 1000285478
Region Code: 02
Programmatic ID: AIR 020000003402790011
Facility Registry ID: 110004169863
D and B Number: Not reported
Primary SIC Code: 3711
NAICS Code: 811121
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:
Envid: 1000285478
Region Code: 02
Programmatic ID: AIR 020000003402790011
Facility Registry ID: 110004169863
D and B Number: Not reported
Primary SIC Code: 3711
NAICS Code: 811121
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

FINDS:

Registry ID: 110004169863

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

NJ-NJEMS (New Jersey - New Jersey Environmental Management System). The Department of Environmental Protection (NJDEP) manages large databases of environmental information in this integrated system.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

AIR MINOR

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000285478
Registry ID:	110004169863
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110004169863

AIRS:

Emission Year:	Not reported
Facility Number:	G2529
NAICS Code:	Not reported
Pollutant Name:	Not reported
Tons/Year lbs/Year For Taps 1000 Tons/Year For CO2:	Not reported
Tons/Season (5/1-9/30):	Not reported
Lbs/Day Peak Ozone Season (6/1-8/31):	Not reported
Lbs/Day Co-season (12/1-2/31):	Not reported
Permit of Emission:	Not reported
X Coordinate:	485895
Y Coordinate:	670334
Coordinate Units:	NJ State Plane (NAD83) - USFEET
Coordinate Type:	GPS
Active Number:	PCP960001
Active Type Description:	Construction of New Source
Document Status:	Terminated
Expiration Date:	07/18/2017
Active Flag:	Y

MILLINGTON AUTO BODY INC (Continued) **1000285478**

NJ MANIFEST:

EPA Id:	NJD101251676
Mail Address:	1905 LONG HILL RD
Mail City/State/Zip:	MILLINGTON 07946
Facility Phone:	Not reported
Emergency Phone:	Not reported
Contact:	Not reported
Comments:	Not reported
SIC Code:	7531
County:	14
Municipal:	30
Previous EPA Id:	Not reported
Gen Flag:	D
Trans Flag:	Not reported
TSDF Flag:	Not reported
Name Change:	Not reported
Date Change:	Not reported

Manifest:

Manifest Number:	000519270VES
EPA ID:	NJD101251676
Date Shipped:	2/28/2011
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	400.00 Pounds

Manifest Number:	000807308VES
EPA ID:	NJD101251676
Date Shipped:	6/11/2013
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003 D001 F005 D035
Hand Code:	Not reported
Quantity:	400.00 Pounds

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Manifest Number:	000292316VES
EPA ID:	NJD101251676
Date Shipped:	03/19/2010
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	03/19/2010
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	03/19/2010
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	400 P

Manifest Number:	000680966VES
EPA ID:	NJD101251676
Date Shipped:	7/18/2012
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003 D001 F005 D035
Hand Code:	Not reported
Quantity:	400.00 Pounds

Manifest Number:	000298829VES
EPA ID:	NJD101251676
Date Shipped:	01/14/2010
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	01/14/2010
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	01/14/2010
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	400 P

Manifest Number:	000237070VES
EPA ID:	NJD101251676
Date Shipped:	07/31/2008
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	07/31/2008
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	07/31/2008
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	50 G

Manifest Number:	001115204VES
EPA ID:	NJD101251676
Date Shipped:	3/3/2016
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Manifest Number:	000647134VES
EPA ID:	NJD101251676
Date Shipped:	1/15/2013
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003 D001 F005 D035
Hand Code:	Not reported
Quantity:	400.00 Pounds

Manifest Number:	000681761VES
EPA ID:	NJD101251676
Date Shipped:	4/3/2012
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003 D001 F005 D035
Hand Code:	Not reported
Quantity:	400.00 Pounds

Manifest Number:	000847376VES
EPA ID:	NJD101251676
Date Shipped:	8/25/2015
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Manifest Number:	000807491VES
EPA ID:	NJD101251676
Date Shipped:	11/8/2013
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Manifest Discrepancy Type: Not reported
Data Entry Number: Not reported
Was Load Rejected: MILLINGTON 07946
Reason Load Was Rejected: Not reported

Waste:
Manifest Year: Not reported
Waste Code: F003 D001 F005 D035
Hand Code: Not reported
Quantity: 400.00 Pounds

Manifest Number: 000290279VES
EPA ID: NJD101251676
Date Shipped: 09/04/2009
TSDF EPA ID: NJD002454544
Transporter EPA ID: NJD080631369
Transporter 2 EPA ID: NJD000692061
Transporter 3 EPA ID: Not reported
Transporter 4 EPA ID: Not reported
Transporter 5 EPA ID: Not reported
Transporter 6 EPA ID: Not reported
Transporter 7 EPA ID: Not reported
Transporter 8 EPA ID: Not reported
Transporter 9 EPA ID: Not reported
Transporter 10 EPA ID: Not reported
Date Trans1 Transported Waste: 09/04/2009
Date Trans2 Transported Waste: 09/11/2009
Date Trans3 Transported Waste: Not reported
Date Trans4 Transported Waste: Not reported
Date Trans5 Transported Waste: Not reported
Date Trans6 Transported Waste: Not reported
Date Trans7 Transported Waste: Not reported
Date Trans8 Transported Waste: Not reported
Date Trans9 Transported Waste: Not reported
Date Trans10 Transported Waste: Not reported
Date TSDF Received Waste: 09/11/2009
TSDF EPA Facility Name: Not reported
QTY Units: Not reported
Transporter SEQ ID: Not reported
Transporter-1 Date: Not reported
Waste SEQ ID: Not reported
Waste Type Code 2: Not reported
Waste Type Code 3: Not reported
Waste Type Code 4: Not reported
Waste Type Code 5: Not reported
Waste Type Code 6: Not reported
Date Accepted: Not reported
Manifest Discrepancy Type: Not reported
Data Entry Number: Not reported
Was Load Rejected: MILLINGTON 07946
Reason Load Was Rejected: Not reported

Waste:
Manifest Year: Not reported
Waste Code: F003
Hand Code: H061
Quantity: 400 P

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Manifest Number:	000517194VES
EPA ID:	NJD101251676
Date Shipped:	1/3/2012
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003 D001 F005 D035
Hand Code:	Not reported
Quantity:	400.00 Pounds

Manifest Number:	000470112VES
EPA ID:	NJD101251676
Date Shipped:	07/01/2010
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	07/01/2010
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	07/01/2010
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	400 P

Manifest Number:	000884253JJK
EPA ID:	NJD101251676
Date Shipped:	04/11/2008
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	04/11/2008
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	04/11/2008
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	50 G

Manifest Number:	000972631VES
EPA ID:	NJD101251676
Date Shipped:	2/13/2015
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Manifest Number:	000881195JJK
EPA ID:	NJD101251676
Date Shipped:	01/17/2008
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	01/17/2008
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	01/17/2008
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	55 G

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Manifest Number:	000201964VES
EPA ID:	NJD101251676
Date Shipped:	04/01/2009
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	04/01/2009
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	04/01/2009
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	50 G

Manifest Number:	000516535VES
EPA ID:	NJD101251676
Date Shipped:	11/17/2010
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	11/17/2010
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	11/17/2010
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H141
Quantity:	400 P

Manifest Number:	000564708VES
EPA ID:	NJD101251676
Date Shipped:	9/16/2011
TSDF EPA ID:	NJD002454544
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported

MILLINGTON AUTO BODY INC (Continued) **1000285478**

Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	MILLINGTON 07946
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	F003
Hand Code:	H061
Quantity:	400.00 gallons

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52 **RICHARD CORIELL & CO INC** **NJ SHWS U000359156**
NNE **1926 LONG HILL RD** **NJ UST N/A**
< 1/8 **LONG HILL TWP, NJ 07946**
0.062 mi.
329 ft.

Relative: Higher

Actual: 293 ft.

SHWS:

Site ID:	44125
Status:	Closed
Home Owner:	Yes
PI Number:	008884

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

UST:

Facility ID:	008884

Contact:

Owner Name:	Not Identified Not Identified
Organization:	Not Identified
Contact Type(UST Reg):	Facility Operator
Contact Address (UST Reg):	Not reported
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Not reported

RICHARD CORIELL & CO INC (Continued) **U000359156**

Owner Name:	RICHARD CORIELL
Organization:	RICHARD CORIELL & CO INC
Contact Type(UST Reg):	Tank Owner
Contact Address (UST Reg):	20 STONE HOUSE RD
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Millington, NJ 07946

Tanks:

Tank Id:	TANK-1
Tank Number:	E1E
Tank Status:	**Removed**
Tank Status Date:	01/01/1972
Install Date:	01/01/1972
Tank Contents:	Medium Diesel Fuel (No. 2-D)
Tank Size:	0
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

Tank Id:	TANK-2
Tank Number:	E2
Tank Status:	**Removed**
Tank Status Date:	01/01/1977
Install Date:	01/01/1977
Tank Contents:	Leaded Gasoline
Tank Size:	0
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

F53 **KARG'S FUEL OIL CO** **NJ SHWS** **S109303444**
NE **1901 1903 LONG HILL RD** **N/A**
< 1/8 **LONG HILL TWP, NJ**
0.062 mi.
330 ft. **Site 1 of 4 in cluster F**

Relative:
Higher

Actual:
288 ft.

SHWS:

Site ID:	45323
Status:	Closed
Home Owner:	No
PI Number:	000764

KARG'S FUEL OIL CO (Continued) **S109303444**

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

F54 **KARG FUEL OIL INCORPORATED** **NJ VCP** **S106762962**
NE **1903 LONG HILL RD** **N/A**
< 1/8 **LONG HILL TWP, NJ 07946**
0.062 mi.
330 ft. **Site 2 of 4 in cluster F**

Relative:
Higher

Actual:
288 ft.

VCP:
Incident Number: 97-09-15-1337-53
MOA Execution Date: 10/20/1997
Type Of Vcp File: HISTORICAL
Pi Number: Not reported
Case Type(Case Type): Not reported
Case Contact: Department Not reported
Case Contact Name: Not reported
Case Contact: Organization Karg Fuel Oil Inc
Case Contact: Address: Line1 Not reported
Case Contact: Address: Line2 Not reported
Case Contact: Address: Line3 Not reported
Case Contact City,St,Zip: Not reported

F55 **KARG'S FUEL OIL CO** **NJ UST** **U004244373**
NE **1903 LONG HILL RD** **N/A**
< 1/8 **LONG HILL TWP, NJ 07946**
0.062 mi.
330 ft. **Site 3 of 4 in cluster F**

Relative:
Higher

Actual:
288 ft.

UST:
Facility ID: 031960

Contact:
Owner Name: Not Identified Not Identified
Organization: WILLIAM KARG
Contact Type(UST Reg): Facility Operator
Contact Address (UST Reg): Not reported
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Not reported

Owner Name: WILLIAM KARG
Organization: KARG'S FUEL OIL CO
Contact Type(UST Reg): Tank Owner
Contact Address (UST Reg): 1901 LONG HILL RD
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Millington, NJ 07946

Tanks:
Tank Id: TANK-114293
Tank Number: 00E1
Tank Status: **Other**

KARG'S FUEL OIL CO (Continued) **U004244373**

Tank Status Date:	01/01/1974
Install Date:	01/01/1974
Tank Contents:	Heating Oil (No. 2)
Tank Size:	20000
Tank Compliance:	No
Overfill:	No
Compliance Monitoring?:	No
Overfill Protection:	No
Spill Containment:	No
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Bare steel
Tank/Pipe Construction Type:	Pipe Bare steel
Tank/Pipe Monitor:	Pipe None
Tank/Pipe Monitor:	Tank None

F56 **KARG'S FUEL OIL CO** **NJ UST** **U004241954**
NE **1903 LONG HILL RD** **N/A**
< 1/8 **LONG HILL TWP, NJ 07946**
0.062 mi.
330 ft. **Site 4 of 4 in cluster F**

Relative:
Higher

Actual:
288 ft.

UST:

Facility ID:	000764

Contact:

Owner Name:	THOMAS KARG
Organization:	KARGS FUEL OIL INC
Contact Type(UST Reg):	Facility Operator
Contact Address (UST Reg):	1901 LONG HILL RD
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Millington, NJ 07946
Owner Name:	THOMAS KARG
Organization:	KARG'S FUEL OIL CO
Contact Type(UST Reg):	Tank Owner
Contact Address (UST Reg):	1901 LONG HILL RD
Contact Address 2 (UST Reg):	Not reported
Conact City,St,Zip (UST Reg):	Millington, NJ 07946

Tanks:

Tank Id:	TANK-1
Tank Number:	1
Tank Status:	**In-use**
Tank Status Date:	07/01/1975
Install Date:	07/01/1975
Tank Contents:	Heating Oil (No. 2)
Tank Size:	20000
Tank Compliance:	Yes
Overfill:	Yes
Compliance Monitoring?:	Yes
Overfill Protection:	Yes
Spill Containment:	Yes
Tank Wellhead Protection:	Not reported
Tank/Pipe Construction Type:	Tank Cathodically protected steel - Impressed current
Tank/Pipe Construction Type:	Pipe Other: Above ground
Tank/Pipe Monitor:	Pipe None

KARG'S FUEL OIL CO (Continued) **U004241954**

Tank/Pipe Monitor: Tank In-tank(automatic)monitoring
Tank/Pipe Monitor: Tank Tightness Test

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57 **126 DIVISION AVENUE** **NJ VCP** **S106573911**
SSE **126 DIVISION AVE** **NJ NJEMS** **N/A**
1/8-1/4 **LONG HILL TWP, NJ 07946**
0.136 mi.
716 ft.

Relative: **Lower**
Actual: **239 ft.**

VCP:

Incident Number:	99-10-08-1315-47
MOA Execution Date:	10/29/1999
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	74794
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485767
Y Coord:	668791
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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58 **30 MIDVALE AVE** **NJ SHWS** **S109301804**
ESE **30 MIDVALE AVE** **N/A**
1/8-1/4 **LONG HILL TWP, NJ**
0.152 mi.
802 ft.

Relative: **Higher**
Actual: **253 ft.**

SHWS:

Site ID:	368489
Status:	Closed
Home Owner:	Yes
PI Number:	455818

30 MIDVALE AVE (Continued) **S109301804**

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

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59 **25 SUNSET PLACE** **NJ SHWS** **1007014855**
ENE **25 SUNSET PL** **NJ HIST HWS** **N/A**
1/8-1/4 **LONG HILL TWP, NJ 07848** **NJ VCP**
0.201 mi. **NJ NJEMS**
1060 ft.

Relative: Higher
Actual: 297 ft.

SHWS:
Site ID: 118220
Status: Closed
Home Owner: Yes
PI Number: 155796

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

HIST SHWS:
Case Status: **Active**
Status Date: 4/23/2002
Case ID: 155796
Contact: Bureau of Field Operations - Northern
Sub Section Label: A: Sites with On-Site Sources of Contamination
Site Municipality: 1430
Remedial Level Code: C2
Classification exception area dt: None
Classification exception area dt: Not reported
Deed Notice Status: None
Deed Notice Date: Not reported
Engineering Control Status: None
Engineering Control Date: Not reported
National Priorities List Status: Not reported
National Priorities List Date: Not reported
X Coordinate: 486751
Y Coordinate: 670264
Coordinate System: NJ State Plane (NAD83) - USFEET

VCP:
Incident Number: 02-04-04-1135-11
MOA Execution Date: 04/24/2002
Type Of Vcp File: HISTORICAL
Pi Number: Not reported
Case Type(Case Type): Not reported
Case Contact: Department Not reported
Case Contact Name: Not reported
Case Contact: Organization Not reported
Case Contact: Address: Line1 Not reported
Case Contact: Address: Line2 Not reported
Case Contact: Address: Line3 Not reported
Case Contact City,St,Zip: Not reported

25 SUNSET PLACE (Continued) **1007014855**

NJEMS:

Site Id:	118220
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	486769
Y Coord:	670508
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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60 South 1/8-1/4 0.230 mi. 1213 ft. **NAVAL IND RESRV PLANT** **FUDS** **1012129625 N/A**

OTHER, NJ

Relative: Lower

Actual: 232 ft.

FUDS:

EPA Region:	02
Congressional District:	07
FUDS Number:	C02NJ1013
State:	NJ
Facility Name:	NAVAL IND RESRV PLANT
Fiscal Year:	2013
City:	OTHER
Federal Facility ID:	NJ9799F9597
Telephone:	978-318-8238
INST ID:	54886
County:	MORRIS
RAB:	Not reported
CORPS_DIST:	New England District (NAE)
NPL Status:	Not Listed
CTC:	12
Current Owner:	Private Sector
Future Prog:	Not reported
Description:	N/A
Current Program:	Not reported
History:	THE NAVY IN NOVEMBER 1941. EMPLOYED SMITH ASBESTOS CORP. TO DO CONTRACT FOR THEM. THE NAVY ENDED ITS OCCUPATION AND CANCELLED THE CONTRACTS IN 1948 AND THE SITE REVERTED BACK ASBESTOS LIMETED, INC. INPR concluded site was eligible, but no cleanup required. However, this investigation was limited to the issue of whether oil tanks on the site required a response action, and did not address the issue of asbestos at the site. USEPA Region II conducted a removal action to remove asbestos mounds created prior to 1953 when both slurry and deficient products were disposed onsite.

NAVAL IND RESRV PLANT (Continued) **1012129625**

Latitude Degree:	40
Latitude Minute:	40
Latitude Second:	21
Latitude Direction:	N
Longitude Degree:	-74
Longitude Minute:	31
Longitude Second:	26
Longitude Direction:	E

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61 **142 CHURCH ROAD** **NJ SHWS S109307514**
North **142 CHURCH RD** **NJ NJEMS N/A**
1/8-1/4 **LONG HILL TWP, NJ 07928**
0.247 mi.
1306 ft.

Relative:
Higher

Actual:
399 ft.

SHWS:

Site ID:	72330
Status:	Closed
Home Owner:	No
PI Number:	G000024348

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	72330
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485221
Y Coord:	671376
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GPS
Coord Orign:	DEP-Program
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

62
ESE
1/4-1/2
0.279 mi.
1475 ft.

182 NORTHFIELD ROAD
182 NORTHFIELD RD
LONG HILL TWP, NJ 07928

NJ SHWS **S113653234**
NJ NJEMS **N/A**

Relative:
Higher

Actual:
262 ft.

SHWS:

Site ID:	87369
Status:	Closed
Home Owner:	Yes
PI Number:	G000061026

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	87369
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	487139
Y Coord:	668923
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

G63
NNE
1/4-1/2
0.284 mi.
1501 ft.

84 CHURCH ROAD
84 CHURCH RD
LONG HILL TWP, NJ 07946
Site 1 of 2 in cluster G

NJ VCP **S106586162**
N/A

Relative:
Higher

Actual:
395 ft.

VCP:

Incident Number:	01-08-24-1542-05
MOA Execution Date:	09/28/2001
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

H64 **45 NORTHFIELD ROAD** **NJ SHWS** **S108063739**
ENE **45 NORTHFIELD RD** **NJ VCP** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946** **NJ NJEMS**
0.291 mi.
1536 ft. **Site 1 of 2 in cluster H**

Relative:
Higher

Actual:
296 ft.

SHWS:

Site ID:	214073
Status:	Closed
Home Owner:	Yes
PI Number:	279462

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	05-11-18-0839-27
MOA Execution Date:	01/26/2006
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	214073
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	487201
Y Coord:	670658
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010110
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Plainfield Rd to Dead R)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

H65 **37 NORTHFIELD ROAD** **NJ SHWS** **S106580894**
ENE **37 NORTHFIELD RD** **NJ VCP** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946** **NJ NJEMS**
0.296 mi. **NJ Release**
1565 ft. **Site 2 of 2 in cluster H**

Relative: Higher

Actual: 300 ft.

SHWS:

Site ID:	124711
Status:	Closed
Home Owner:	No
PI Number:	164700

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	02-03-08-1140-50
MOA Execution Date:	09/24/2002
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	All Saints Episcopal Church
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	124711
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	487185
Y Coord:	670758
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010110
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Plainfield Rd to Dead R)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	03/08/2002

37 NORTHFIELD ROAD (Continued) **S106580894**

Incident Time:	Not reported
Trenton Dispatch Log Number:	14911
Case Number:	02-03-08-1140-50
Date Received:	03/08/2002
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE AT
Location:	Not reported
Other Location:	Not reported
Contact Name:	JEFF KIMACK
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported

37 NORTHFIELD ROAD (Continued) **S106580894**

Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments:	Not reported
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	03/08/2002
Reporter Type:	Citizen Complaint
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	ALL SAINTS CHURCH
Incident Address:	21 BASKING RIDGE RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Long Hill Twp, NJ 07946
Incident County:	Morris
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

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66 **169 NORTHFIELD ROAD** **NJ SHWS** **S106761606**
ESE **169 NORTHFIELD RD** **NJ VCP** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946** **NJ NJEMS**
0.312 mi.
1649 ft.

Relative:
Higher

Actual:
268 ft.

SHWS:

Site ID:	69780
Status:	Closed
Home Owner:	No
PI Number:	G000031069

Detail As Of April 2012:

169 NORTHFIELD ROAD (Continued) **S106761606**

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	97-02-14-1221-08
MOA Execution Date:	10/15/1997
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Dennis Sakos
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	69780
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	487440
Y Coord:	669116
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010110
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Plainfield Rd to Dead R)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

G67 **59 CROSS HILL ROAD** **NJ SHWS** **S110024022**
NNE **59 CROSS HILL RD** **NJ NJEMS** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946** **NJ Release**
0.332 mi.
1753 ft. **Site 2 of 2 in cluster G**

Relative:
Higher

Actual:
385 ft.

SHWS:

Site ID:	406826
Status:	Closed
Home Owner:	Yes
PI Number:	509211

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported

59 CROSS HILL ROAD (Continued) **S110024022**

Y Coord PI: Not reported

NJEMS:

Site Id:	406826
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485969
Y Coord:	671725
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	08/06/2009
Incident Time:	Not reported
Trenton Dispatch Log Number:	322338
Case Number:	09-08-06-0958-03
Date Received:	08/06/2009
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESID
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported

59 CROSS HILL ROAD (Continued) **S110024022**

Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	08/06/2009
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	JOHN COLLINS
Incident Address:	59 CROSS HILL RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Long Hill Twp, NJ 07946
Incident County:	Morris

59 CROSS HILL ROAD (Continued) **S110024022**

DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

I68 **95 HIGHLAND AVENUE** **NJ VCP** **S106762395**
West **95 HIGHLAND AVE** **N/A**
1/4-1/2 **BERNARDS, NJ 07920**
0.333 mi.
1760 ft. **Site 1 of 3 in cluster I**

Relative:
Higher

Actual:
279 ft.

VCP:

Incident Number:	97-06-17-1147-59
MOA Execution Date:	07/09/1997
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Robert S Brigham
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

I69 **95 HIGHLAND AVENUE** **NJ SHWS** **S109311837**
West **95 HIGHLAND AVE** **NJ NJEMS** **N/A**
1/4-1/2 **BERNARDS TWP, NJ 07920**
0.333 mi.
1760 ft. **Site 2 of 3 in cluster I**

Relative:
Higher

Actual:
279 ft.

SHWS:

Site ID:	83130
Status:	Closed
Home Owner:	No
PI Number:	G000031849

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

95 HIGHLAND AVENUE (Continued) **S109311837**

Site Id:	83130
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483243
Y Coord:	669411
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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70 **96 CROSS HILL ROAD** **NJ SHWS** **S108398938**
North **96 CROSS HILL RD** **NJ VCP** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946** **NJ NJEMS**
0.343 mi.
1811 ft.

Relative:
Higher

Actual:
374 ft.

SHWS:

Site ID:	257887
Status:	Closed
Home Owner:	Yes
PI Number:	330342

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	06-03-13-1424-01
MOA Execution Date:	12/29/2006
Type Of Vcp File:	CURRENT
Pi Number:	330342
Case Type(Case Type):	MOA
Case Contact: Department	Not reported
Case Contact Name:	ANDREW KENOPENSKY
Case Contact: Organization	Not reported
Case Contact: Address: Line1	176 ARCHERY CLUB RD
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	NEW RINGGOLD, PA 17960

NJEMS:

Site Id:	257887
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP

96 CROSS HILL ROAD (Continued) **S108398938**

GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485467
Y Coord:	672079
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

J71 **46 CHURCH ROAD** **NJ SHWS** **S111263372**
NNE **46 CHURCH RD** **NJ NJEMS** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946** **NJ Release**
0.348 mi.
1840 ft. **Site 1 of 3 in cluster J**

Relative:
Higher

Actual:
366 ft.

SHWS:

Site ID:	447414
Status:	Closed
Home Owner:	Yes
PI Number:	562443

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	447414
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	486495
Y Coord:	671747
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

46 CHURCH ROAD (Continued) **S111263372**

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	08/10/2011
Incident Time:	Not reported
Trenton Dispatch Log Number:	397335
Case Number:	11-08-10-1141-00
Date Received:	08/10/2011
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	JAMES
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported

46 CHURCH ROAD (Continued) **S111263372**

Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments:	Not reported
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	08/10/2011
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	JAMES WEILER
Incident Address:	46 CHURCH RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Long Hill Twp, NJ 07933
Incident County:	Morris
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

72
NW
1/4-1/2
0.350 mi.
1849 ft.

15 TALL TIMBER DRIVE
15 TALL TIMBER DR
WASHINGTON TWP, NJ 07920

NJ VCP **S108062005**
N/A

Relative:
Higher

Actual:
299 ft.

VCP:

Incident Number:	05-04-15-1340-09
MOA Execution Date:	08/01/2005
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

K73
West
1/4-1/2
0.360 mi.
1899 ft.

41 OVERLOOK AVENUE
41 OVERLOOK AVE
BERNARDS TWP, NJ 07920

Site 1 of 3 in cluster K

NJ VCP **S108949981**
N/A

Relative:
Higher

Actual:
285 ft.

VCP:

Incident Number:	06-11-06-1324-25
MOA Execution Date:	10/09/2007
Type Of Vcp File:	CURRENT
Pi Number:	450176
Case Type(Case Type):	MOA
Case Contact: Department	Not reported
Case Contact Name:	DANIEL ROSSI
Case Contact: Organization	Not reported
Case Contact: Address: Line1	21 STARLIGHT DR
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	ORMOND BEACH, FL 32176

I74
West
1/4-1/2
0.369 mi.
1946 ft.

90 HIGHLAND AVENUE
90 HIGHLAND AVE
BERNARDS, NJ 07920

Site 3 of 3 in cluster I

NJ SHWS **S106210622**
NJ HIST HWS **N/A**
NJ VCP
NJ NJEMS
NJ Release

Relative:
Higher

Actual:
284 ft.

SHWS:

Site ID:	126589
Status:	Closed
Home Owner:	Yes
PI Number:	167042

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

90 HIGHLAND AVENUE (Continued) **S106210622**

HIST SHWS:

Case Status:	**Active**
Status Date:	11/14/2002
Case ID:	167042
Contact:	Bureau of Field Operations - Northern
Sub Section Label:	A: Sites with On-Site Sources of Contamination
Site Municipality:	1802
Remedial Level Code:	C1
Classification exception area dt:	None
Classification exception area dt:	Not reported
Deed Notice Status:	None
Deed Notice Date:	Not reported
Engineering Control Status:	None
Engineering Control Date:	Not reported
National Priorities List Status:	Not reported
National Priorities List Date:	Not reported
X Coordinate:	482981
Y Coordinate:	669506
Coordinate System:	NJ State Plane (NAD83) - USFEET

VCP:

Incident Number:	02-10-31-0808-04
MOA Execution Date:	11/14/2002
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	126589
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483012
Y Coord:	669619
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

90 HIGHLAND AVENUE (Continued) **S106210622**

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	10/25/2002
Incident Time:	Not reported
Trenton Dispatch Log Number:	38417
Case Number:	02-10-31-0808-04
Date Received:	10/31/2002
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported

90 HIGHLAND AVENUE (Continued) **S106210622**

Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	10/31/2002
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	ELIZABETH MOORE
Incident Address:	90 HIGHLAND AVE
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ 07920
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

J75 **15 CROSS HILL ROAD** **NJ SHWS** **S108253901**
NNE **15 CROSS HILL RD** **NJ VCP** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946**
0.380 mi.
2004 ft. **Site 2 of 3 in cluster J**

Relative:
Higher

Actual:
358 ft.

SHWS:

Site ID:	222079
Status:	Closed
Home Owner:	Yes
PI Number:	290035

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	06-01-19-0942-51
MOA Execution Date:	06/12/2006
Type Of Vcp File:	CURRENT
Pi Number:	290035
Case Type(Case Type):	MOA
Case Contact: Department	Not reported
Case Contact Name:	KATHLEEN LARKIN
Case Contact: Organization	Not reported
Case Contact: Address: Line1	15 CROSS HILL RD
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Millington, NJ 07946

L76 **86 HIGHLAND AVENUE** **NJ SHWS** **S109299122**
West **86 HIGHLAND AVE** **NJ NJEMS** **N/A**
1/4-1/2 **BERNARDS TWP, NJ 07920**
0.392 mi.
2070 ft. **Site 1 of 3 in cluster L**

Relative:
Higher

Actual:
284 ft.

SHWS:

Site ID:	205899
Status:	Closed
Home Owner:	Yes
PI Number:	270848

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	205899
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	482890
Y Coord:	669591
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid

86 HIGHLAND AVENUE (Continued) **S109299122**

Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

L77 **86 HIGHLAND AVENUE** **NJ VCP** **S108064627**
West **86 HIGHLAND AVE** **N/A**
1/4-1/2 **BERNARDS, NJ 07920**
0.392 mi.
2070 ft. **Site 2 of 3 in cluster L**

Relative: **Higher**
Actual: **284 ft.**

VCP:

Incident Number:	05-05-05-1602-59
MOA Execution Date:	01/18/2006
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

J78 **35 BASKING RIDGE ROAD** **NJ SHWS** **S118168473**
NNE **35 BASKING RIDGE RD** **NJ NJEMS** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946**
0.395 mi.
2083 ft. **Site 3 of 3 in cluster J**

Relative: **Higher**
Actual: **353 ft.**

SHWS:

Site ID:	555203
Status:	Closed
Home Owner:	Yes
PI Number:	695641

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	555203
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430

35 BASKING RIDGE ROAD (Continued) **S118168473**

X Coord:	486662
Y Coord:	671873
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	Digital Image
Coord Orign:	DEP-SRP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

79
NNE
1/4-1/2
0.395 mi.
2087 ft.

63 BASKING RIDGE ROAD
63 BASKING RIDGE RD
LONG HILL TWP, NJ 07946

NJ SHWS **S108064220**
NJ VCP **N/A**
NJ NJEMS

Relative:
Higher

Actual:
351 ft.

SHWS:

Site ID:	220502
Status:	Closed
Home Owner:	Yes
PI Number:	287865

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	06-02-09-1317-38
MOA Execution Date:	05/15/2006
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Executrix for the Estate of Marjorie S Krummel
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	220502
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	486484
Y Coord:	672031
Coord System:	NJ STATE PLANE (NAD83) - USFEET

63 BASKING RIDGE ROAD (Continued) **S108064220**

Coord Type:	Approx. Addr. Match
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

M80 **ALL SAINTS CHURCH NURSERY SCHOOL** **NJ VCP** **S106587185**
NE **15 BASKING RIDGE RD** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946**
0.396 mi.
2093 ft. **Site 1 of 2 in cluster M**

Relative:
Higher

Actual:
359 ft.

VCP:

Incident Number:	01-03-16-1053-46
MOA Execution Date:	08/09/2002
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	All Saints Church
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

N81 **63 OVERLOOK AVENUE** **NJ SHWS** **S109295475**
West **63 OVERLOOK AVE** **N/A**
1/4-1/2 **BERNARDS TWP, NJ**
0.399 mi.
2109 ft. **Site 1 of 2 in cluster N**

Relative:
Higher

Actual:
297 ft.

SHWS:

Site ID:	158370
Status:	Closed
Home Owner:	Yes
PI Number:	258043

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

N82 **63 OVERLOOK AVENUE** **NJ VCP** **S108064224**
West **63 OVERLOOK AVE** **N/A**
1/4-1/2 **BERNARDS, NJ 08755**
0.399 mi.
2109 ft. **Site 2 of 2 in cluster N**

Relative:
Higher

Actual:
297 ft.

VCP:

Incident Number:	05-05-13-1125-26
MOA Execution Date:	07/13/2005
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

K83 **36 OVERLOOK AVENUE** **NJ VCP** **S106761961**
West **36 OVERLOOK AVE** **N/A**
1/4-1/2 **BERNARDS, NJ 07920**
0.401 mi.
2117 ft. **Site 2 of 3 in cluster K**

Relative:
Higher

Actual:
282 ft.

VCP:

Incident Number:	97-06-19-1309-37
MOA Execution Date:	03/08/1999
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

K84 **36 OVERLOOK AVENUE** **NJ SHWS** **S109306877**
West **36 OVERLOOK AVE** **NJ NJEMS** **N/A**
1/4-1/2 **BERNARDS TWP, NJ 07920**
0.401 mi.
2117 ft. **Site 3 of 3 in cluster K**

Relative:
Higher

Actual:
282 ft.

SHWS:

Site ID:	70061
Status:	Closed
Home Owner:	No
PI Number:	G000031906

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

36 OVERLOOK AVENUE (Continued) **S109306877**

NJEMS:

Site Id:	70061
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	482802
Y Coord:	669750
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

M85 **ALL SAINT CHURCH NURSERY SCHOOL** **NJ SHWS** **S109313951**
NE **15 BASKING RIDGE RD** **NJ NJEMS** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07928**
0.412 mi.
2177 ft. **Site 2 of 2 in cluster M**

Relative:
Higher

Actual:
359 ft.

SHWS:

Site ID:	88315
Status:	Closed
Home Owner:	No
PI Number:	G000062229

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	88315
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	486841
Y Coord:	671804
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway

ALL SAINT CHURCH NURSERY SCHOOL (Continued) **S109313951**

Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

L86 **NJ SHWS** **S113923061**
West **79 HIGHLAND AVE** **NJ Release** **N/A**
1/4-1/2 **BERNARDS TWP, NJ 07920**
0.420 mi.
2217 ft. **Site 3 of 3 in cluster L**

Relative:
Higher

Actual:
282 ft.

SHWS:

Site ID:	531030
Status:	Closed
Home Owner:	Yes
PI Number:	666720

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	05/14/2013
Incident Time:	Not reported
Trenton Dispatch Log Number:	482142
Case Number:	13-07-11-0932-59
Date Received:	07/11/2013
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	FRANK PETERPAUL
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No

(Continued) **S113923061**

Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	07/11/2013
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	FRANK PETERPAUL
Incident Address:	311 ALLEN AVE
Incident Address 2:	Not reported
Incident City,St,Zip:	Allenhurst Boro, NJ
Incident County:	Monmouth
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported

(Continued) **S113923061**

Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

87
NNW
1/4-1/2
0.426 mi.
2247 ft.

179 OAKS ROAD **NJ SHWS** **S108254043**
179 OAKS RD **NJ VCP** **N/A**
LONG HILL TWP, NJ 07946

Relative:
Higher

Actual:
310 ft.

SHWS:

Site ID:	226258
Status:	Closed
Home Owner:	Yes
PI Number:	295310

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	06-04-28-1043-35
MOA Execution Date:	09/13/2006
Type Of Vcp File:	CURRENT
Pi Number:	295310
Case Type(Case Type):	MOA
Case Contact: Department	Not reported
Case Contact Name:	THEODORE LAFFEY
Case Contact: Organization	Not reported
Case Contact: Address: Line1	179 OAKS RD
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Millington, NJ 07946

88
North
1/4-1/2
0.429 mi.
2264 ft.

117 BASKING RIDGE ROAD **NJ SHWS** **S106761430**
117 BASKING RIDGE RD **NJ VCP** **N/A**
LONG HILL TWP, NJ 07920 **NJ NJEMS**

Relative:
Higher

Actual:
329 ft.

SHWS:

Site ID:	72980
Status:	Closed
Home Owner:	No

117 BASKING RIDGE ROAD (Continued) **S106761430**

PI Number: G000029113

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

VCP:
Incident Number: 96-06-24-1610-27
MOA Execution Date: 10/03/1996
Type Of Vcp File: HISTORICAL
Pi Number: Not reported
Case Type(Case Type): Not reported
Case Contact: Department Not reported
Case Contact Name: Not reported
Case Contact: Organization Mundaca Financial Services
Case Contact: Address: Line1 Not reported
Case Contact: Address: Line2 Not reported
Case Contact: Address: Line3 Not reported
Case Contact City,St,Zip: Not reported

NJEMS:
Site Id: 72980
Municipality: LONG HILL TWP
Municipality Name From Spatial Overlay: LONG HILL TWP
GNIS Civil Code For Municipality: 882196
Municipal Code (NJ-1040): 1430
X Coord: 485695
Y Coord: 672270
Coord System: NJ STATE PLANE (NAD83) - USFEET
Coord Type: GIS Parcel Centroid
Coord Orign: DEP-GIS
State Standard Numeric Code From Spatial Overlay: 1430
Unique Feature Number For Municipality From Spatial Overlay: 3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay): 02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay: 02030103010070
Watershed Management Area Number From Spatial Overlay: 06
Watershed Management Area Name From Spatial Overlay: Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay: 1
Water Region Name From Spatial Overlay: Northeast
Sub Watershed Name From Overlay: Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay: Passaic River Upr (above Pine Bk br)

O89 **56 OVERLOOK AVENUE** **NJ VCP** **S106214071**
West **56 OVERLOOK AVE** **NJ Release** **N/A**
1/4-1/2 **BERNARDS, NJ 07920**
0.429 mi.
2265 ft. **Site 1 of 2 in cluster O**

Relative:
Higher

Actual:
318 ft.

VCP:
Incident Number: 03-06-23-1310-08
MOA Execution Date: 09/17/2003
Type Of Vcp File: HISTORICAL
Pi Number: Not reported
Case Type(Case Type): Not reported
Case Contact: Department Not reported

56 OVERLOOK AVENUE (Continued) **S106214071**

Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	06/23/2003
Incident Time:	Not reported
Trenton Dispatch Log Number:	60935
Case Number:	03-06-23-1310-08
Date Received:	06/23/2003
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE AT
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported

56 OVERLOOK AVENUE (Continued) **S106214071**

Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	06/23/2003
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	BUB KNEHR
Incident Address:	56 OVERLOOK AVE
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

O90 **56 OVERLOOK AVENUE** **NJ SHWS** **S109295464**
West **56 OVERLOOK AVE** **NJ NJEMS** **N/A**
1/4-1/2 **BERNARDS TWP, NJ 07920**
0.429 mi.
2265 ft. **Site 2 of 2 in cluster O**

Relative:
Higher

Actual:
318 ft.

SHWS:

Site ID:	158288
Status:	Closed
Home Owner:	Yes
PI Number:	208303

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	158288
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483066
Y Coord:	669189
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	Exact Address Match
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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91 **1948 VALLEY ROAD** **NJ SHWS** **S106576594**
South **1948 VALLEY RD** **NJ VCP** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07938** **NJ NJEMS**
0.429 mi.
2265 ft.

Relative:
Higher

Actual:
249 ft.

SHWS:

Site ID:	87545
Status:	Closed
Home Owner:	No
PI Number:	G000061212

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	00-12-11-1405-24

1948 VALLEY ROAD (Continued) **S106576594**

MOA Execution Date:	02/13/2001
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Kearns & Duffy, PC
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	87545
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485729
Y Coord:	667350
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

92
West
1/4-1/2
0.447 mi.
2362 ft.

75 HIGHLAND AVENUE
75 HIGHLAND AVE
BERNARDS TWP, NJ 07920

NJ SHWS **S108255071**
NJ VCP **N/A**
NJ NJEMS

Relative:
Higher

Actual:
278 ft.

SHWS:

Site ID:	222658
Status:	Closed
Home Owner:	Yes
PI Number:	290834

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	06-04-26-1037-00
MOA Execution Date:	06/20/2006
Type Of Vcp File:	CURRENT
Pi Number:	290834

75 HIGHLAND AVENUE (Continued) **S108255071**

Case Type(Case Type): MOA
Case Contact: Department Not reported
Case Contact Name: DENISE REISER
Case Contact: Organization Not reported
Case Contact: Address: Line1 75 HIGHLAND AVE
Case Contact: Address: Line2 Not reported
Case Contact: Address: Line3 Not reported
Case Contact City,St,Zip: Basking Ridge, NJ 07920

NJEMS:

Site Id:	222658
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	482633
Y Coord:	669275
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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93 **162 BASKING RIDGE ROAD** **NJ SHWS** **S106575613**
North **162 BASKING RIDGE RD** **NJ VCP** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946** **NJ NJEMS**
0.467 mi.
2467 ft.

Relative:
Higher

Actual:
325 ft.

SHWS:
Site ID: 94618
Status: Closed
Home Owner: Yes
PI Number: 133377

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

VCP:
Incident Number: 01-12-28-1139-04
MOA Execution Date: 01/29/2002
Type Of Vcp File: HISTORICAL
Pi Number: Not reported
Case Type(Case Type): Not reported
Case Contact: Department Not reported
Case Contact Name: Not reported

162 BASKING RIDGE ROAD (Continued) **S106575613**

Case Contact: Organization Not reported
Case Contact: Address: Line1 Not reported
Case Contact: Address: Line2 Not reported
Case Contact: Address: Line3 Not reported
Case Contact City,St,Zip: Not reported

NJEMS:

Site Id:	94618
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485350
Y Coord:	672699
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

P94 **175 BASKING RIDGE ROAD** **NJ SHWS S109307408**
North **175 BASKING RIDGE RD** **NJ NJEMS N/A**
1/4-1/2 **LONG HILL TWP, NJ 07928**
0.471 mi.
2487 ft. **Site 1 of 2 in cluster P**

Relative:
Higher

Actual:
311 ft.

SHWS:

Site ID:	72096
Status:	Closed
Home Owner:	No
PI Number:	G000022848

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	72096
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	484985
Y Coord:	672511
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS

175 BASKING RIDGE ROAD (Continued) **S109307408**

State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

Q95 **68 HAAS ROAD** **NJ VCP** **S106919321**
WSW **68 HAAS RD** **NJ Release** **N/A**
1/4-1/2 **BERNARDS, NJ 07920**
0.485 mi.
2560 ft. **Site 1 of 3 in cluster Q**

Relative:
Higher

Actual:
257 ft.

VCP:

Incident Number:	05-04-29-1038-56
MOA Execution Date:	06/08/2005
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	04/29/2005
Incident Time:	Not reported
Trenton Dispatch Log Number:	140200
Case Number:	05-04-29-1038-56
Date Received:	04/29/2005
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE AT
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported

68 HAAS ROAD (Continued) **S106919321**

Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	04/29/2005
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated

68 HAAS ROAD (Continued) **S106919321**

Incident Category:	Other
Incident Source:	CARLO TOMASCO
Incident Address:	68 HAAS RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

Q96 **68 HAAS ROAD** **NJ SHWS** **S109298320**
WSW **68 HAAS RD** **NJ NJEMS** **N/A**
1/4-1/2 **BERNARDS TWP, NJ 07920**
0.485 mi.
2560 ft. **Site 2 of 3 in cluster Q**

Relative:
Higher

Actual:
257 ft.

SHWS:

Site ID:	194376
Status:	Closed
Home Owner:	Yes
PI Number:	255226

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	194376
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	482472
Y Coord:	668959
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway

68 HAAS ROAD (Continued) **S109298320**

Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

P97 **10 EAST RAYBURN ROAD** **NJ SHWS** **S108253567**
North **10 E RAYBURN RD** **NJ VCP** **N/A**
1/4-1/2 **LONG HILL TWP, NJ 07946**
0.499 mi.
2635 ft. **Site 2 of 2 in cluster P**

Relative:
Higher

Actual:
303 ft.

SHWS:

Site ID:	223803
Status:	Closed
Home Owner:	Yes
PI Number:	292194

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	06-04-10-1147-04
MOA Execution Date:	07/26/2006
Type Of Vcp File:	CURRENT
Pi Number:	292194
Case Type(Case Type):	MOA
Case Contact: Department	Not reported
Case Contact Name:	MALCOLM E LINES
Case Contact: Organization	Not reported
Case Contact: Address: Line1	10 E RAYBURN RD
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Millington, NJ 07946

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98 **300 NORTH NORTHFIELD ROAD** **NJ SHWS** **S110512184**
SE **300 S NORTHFIELD RD** **N/A**
1/2-1 **LONG HILL TWP, NJ**
0.528 mi.
2788 ft.

Relative:
Lower

Actual:
240 ft.

SHWS:

Site ID:	413636
Status:	Closed
Home Owner:	Yes
PI Number:	518367

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

R99
NNW
1/2-1
0.532 mi.
2808 ft.

9 RAYBURN RD W
9 RAYBURN RD W
LONG HILL TOWNSHIP, NJ

Site 1 of 2 in cluster R

NJ HWS RE-EVAL **S108027743**
N/A

Relative:
Higher

Actual:
267 ft.

HWS RE-EVAL:
Facility Status: No Confirmed Contamination Data. No Action Required.
PI Number: **G000034886**
Category: Homeowner

Q100
WSW
1/2-1
0.534 mi.
2820 ft.

58 HAAS ROAD
58 HAAS RD
BERNARDS TWP, NJ 07920

Site 3 of 3 in cluster Q

NJ SHWS **S109574897**
NJ NJEMS **N/A**
NJ Release

Relative:
Higher

Actual:
249 ft.

SHWS:
Site ID: 400380
Status: Closed
Home Owner: Yes
PI Number: 501037

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

NJEMS:
Site Id: 400380
Municipality: BERNARDS TWP
Municipality Name From Spatial Overlay: BERNARDS TWP
GNIS Civil Code For Municipality: 882174
Municipal Code (NJ-1040): 1802
X Coord: 482218
Y Coord: 668901
Coord System: NJ STATE PLANE (NAD83) - USFEET
Coord Type: GIS Parcel Centroid
Coord Orign: DEP-GIS
State Standard Numeric Code From Spatial Overlay: 1802
Unique Feature Number For Municipality From Spatial Overlay: 3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay): 02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay: 02030103010070
Watershed Management Area Number From Spatial Overlay: 06
Watershed Management Area Name From Spatial Overlay: Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay: 1
Water Region Name From Spatial Overlay: Northeast
Sub Watershed Name From Overlay: Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay: Passaic River Upr (above Pine Bk br)

NJ Release:
Facility Type: Residential
Facility Phone: Not reported
Incident Date: 02/13/2009
Incident Time: Not reported
Trenton Dispatch Log Number: 302853
Case Number: 09-02-13-1214-03
Date Received: 02/13/2009

58 HAAS ROAD (Continued) **S109574897**

Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	AT
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported

58 HAAS ROAD (Continued) **S109574897**

Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments:	Not reported
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	02/13/2009
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	JANET MCGAHEY
Incident Address:	58 HAAS RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ 07920
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

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101 **HUGHES GLEN RESIDENCE** **NJ SHWS** **S109306999**
WSW **59 HAAS RD** **NJ NJEMS** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920**
0.536 mi.
2828 ft.

Relative:
Lower

Actual:
239 ft.

SHWS:

Site ID:	70652
Status:	Closed
Home Owner:	No
PI Number:	G000033205

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

HUGHES GLEN RESIDENCE (Continued) **S109306999**

NJEMS:

Site Id:	70652
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	482306
Y Coord:	668433
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

R102 **9 WEST RAYBURN ROAD** **NJ SHWS** **S108768717**
NNW **9 W RAYBURN RD** **NJ NJEMS** **N/A**
1/2-1 **LONG HILL TWP, NJ 07946** **NJ Release**
0.538 mi.
2843 ft. **Site 2 of 2 in cluster R**

Relative:
Higher

Actual:
272 ft.

SHWS:

Site ID:	341959
Status:	Closed
Home Owner:	No
PI Number:	422943

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	341959
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	484581
Y Coord:	672866
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	Digital Image
Coord Orign:	DEP-Program
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway

9 WEST RAYBURN ROAD (Continued) **S108768717**

Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Other
Facility Phone:	Not reported
Incident Date:	03/08/2007
Incident Time:	Not reported
Trenton Dispatch Log Number:	223261
Case Number:	07-03-08-0547-33
Date Received:	03/08/2007
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	MOA
Incident Location:	9 W RAYBURN RD
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	Not reported
Public Exposure:	Not reported
Facility Evacuation:	Not reported
Police at Scene:	Not reported
Firemen at Scene:	Not reported
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	Not reported

9 WEST RAYBURN ROAD (Continued) **S108768717**

Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	03/08/2007
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	NJ
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

103
South
1/2-1
0.587 mi.
3102 ft.

59 ROLLING HILL DRIVE
59 ROLLING HILL DR
LONG HILL TWP, NJ 08946

NJ SHWS **S109839379**
NJ NJEMS **N/A**
NJ Release

Relative:
Lower

Actual:
225 ft.

SHWS:

Site ID:	400519
Status:	Closed
Home Owner:	Yes
PI Number:	501206

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	400519
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485978
Y Coord:	666342
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	05/15/2009
Incident Time:	Not reported
Trenton Dispatch Log Number:	312024
Case Number:	09-05-15-1104-11
Date Received:	05/15/2009
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	PAUL MILLER
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported

59 ROLLING HILL DRIVE (Continued) **S109839379**

Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	05/15/2009
Reporter Type:	Other

59 ROLLING HILL DRIVE (Continued) **S109839379**

Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	PAUL MILLER
Incident Address:	59 ROLLING HILL DR
Incident Address 2:	Not reported
Incident City,St,Zip:	Long Hill Twp, NJ 07946
Incident County:	Morris
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

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104 **64 WEST RAYBURN ROAD** **NJ SHWS** **S109301735**
North **64 W RAYBURN RD** **N/A**
1/2-1 **LONG HILL TWP, NJ**
0.604 mi.
3187 ft.

Relative:
Higher

Actual:
270 ft.

SHWS:

Site ID:	367899
Status:	Closed
Home Owner:	Yes
PI Number:	455081

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

S105 **56 EAST RAYBURN ROAD** **NJ SHWS** **S106583614**
North **56 E RAYBURN RD** **NJ VCP** **N/A**
1/2-1 **LONG HILL TWP, NJ 07946** **NJ NJEMS**
0.605 mi.
3194 ft. **Site 1 of 3 in cluster S**

Relative:
Higher

Actual:
289 ft.

SHWS:

Site ID:	88561
Status:	Closed
Home Owner:	No
PI Number:	G000062476

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	01-05-18-1313-51
MOA Execution Date:	06/21/2001
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	88561
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485071
Y Coord:	673341
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

106
SSW
1/2-1
0.610 mi.
3221 ft.

3027 VALLEY ROAD
3027 VALLEY RD
BERNARDS TWP, NJ 07920

NJ SHWS **S107916293**
NJ HIST HWS **N/A**
NJ NJEMS

Relative:
Lower

Actual:
233 ft.

SHWS:

Site ID:	196354
Status:	Closed
Home Owner:	Yes
PI Number:	257782

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

HIST SHWS:

Case Status:	**Active**
Status Date:	7/7/2005
Case ID:	257782
Contact:	Bureau of Field Operations - Northern
Sub Section Label:	A: Sites with On-Site Sources of Contamination
Site Municipality:	1802
Remedial Level Code:	C1
Classification exception area dt:	None
Classification exception area dt:	Not reported
Deed Notice Status:	None
Deed Notice Date:	Not reported
Engineering Control Status:	None
Engineering Control Date:	Not reported
National Priorities List Status:	Not reported
National Priorities List Date:	Not reported
X Coordinate:	Not reported
Y Coordinate:	Not reported
Coordinate System:	Not reported

NJEMS:

Site Id:	196354
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483392
Y Coord:	666524
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

S107 **59 EAST RAYBURN ROAD** **NJ SHWS** **S115583753**
North **59 E RAYBURN RD** **NJ NJEMS** **N/A**
1/2-1 **LONG HILL TWP, NJ 07946**
0.615 mi.
3246 ft. **Site 2 of 3 in cluster S**

Relative:
Higher

Actual:
284 ft.

SHWS:

Site ID:	470907
Status:	Closed
Home Owner:	Yes
PI Number:	594409

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	470907
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485322
Y Coord:	673414
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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108 **19 CREST DRIVE** **NJ SHWS** **S107916339**
SSW **19 CREST DR** **NJ HIST HWS** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920** **NJ NJEMS**
0.635 mi.
3354 ft.

Relative:
Lower

Actual:
229 ft.

SHWS:

Site ID:	199403
Status:	Closed
Home Owner:	Yes
PI Number:	262425

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

HIST SHWS:

Case Status:	**Active**

19 CREST DRIVE (Continued) **S107916339**

Status Date:	9/8/2005
Case ID:	262425
Contact:	Bureau of Field Operations - Northern
Sub Section Label:	A: Sites with On-Site Sources of Contamination
Site Municipality:	1802
Remedial Level Code:	C2
Classification exception area dt:	None
Classification exception area dt:	Not reported
Deed Notice Status:	None
Deed Notice Date:	Not reported
Engineering Control Status:	None
Engineering Control Date:	Not reported
National Priorities List Status:	Not reported
National Priorities List Date:	Not reported
X Coordinate:	Not reported
Y Coordinate:	Not reported
Coordinate System:	Not reported

NJEMS:

Site Id:	199403
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483469
Y Coord:	666324
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

S109 **71 EAST RAYBURN ROAD** **NJ SHWS** **S107911108**
North **71 E RAYBURN RD** **NJ NJEMS** **N/A**
1/2-1 **LONG HILL TWP, NJ 07946** **NJ Release**
0.643 mi.
3397 ft. **Site 3 of 3 in cluster S**

Relative:
Higher

Actual:
273 ft.

SHWS:

Site ID:	412047
Status:	Closed
Home Owner:	Yes
PI Number:	516177

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

71 EAST RAYBURN ROAD (Continued) **S107911108**

NJEMS:

Site Id:	412047
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	485302
Y Coord:	673565
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	03/02/2006
Incident Time:	Not reported
Trenton Dispatch Log Number:	178279
Case Number:	06-03-02-1320-33
Date Received:	03/02/2006
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESID
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No

71 EAST RAYBURN ROAD (Continued) **S107911108**

Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	03/02/2006
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	JEFF THORNTON
Incident Address:	71 E. RAYBURN RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Long Hill Twp, NJ 07946
Incident County:	Morris
DEP Requested:	No
Confidential:	Not reported

71 EAST RAYBURN ROAD (Continued) **S107911108**

Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

110
SW
1/2-1
0.670 mi.
3535 ft.

3060 VALLEY ROAD **NJ SHWS S109311542**
3060 VALLEY RD **NJ NJEMS N/A**
BERNARDS TWP, NJ 07920

Relative: Higher

Actual: 244 ft.

SHWS:

Site ID:	82247
Status:	Closed
Home Owner:	No
PI Number:	G000024195

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	82247
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	482694
Y Coord:	666717
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

111
WSW
1/2-1
0.673 mi.
3553 ft.

27 HAAS ROAD
27 HAAS RD
BERNARDS TWP, NJ 07920

NJ SHWS **S118351107**
NJ NJEMS **N/A**
NJ Release

Relative:
Lower

Actual:
239 ft.

SHWS:

Site ID:	568244
Status:	Closed
Home Owner:	No
PI Number:	711803

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	568244
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	481753
Y Coord:	667883
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	DEP Program Database
Coord Orign:	DEP-Program
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	10/23/2015
Incident Time:	Not reported
Trenton Dispatch Log Number:	577811
Case Number:	15-10-23-1114-27
Date Received:	10/23/2015
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENTIAL AREA
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported

27 HAAS ROAD (Continued) **S118351107**

Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	10/23/2015
Reporter Type:	Other

27 HAAS ROAD (Continued) **S118351107**

Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	BARBARA ANSEED
Incident Address:	27 HAAS ROAD
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ 07920
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

112
SW
1/2-1
0.673 mi.
3554 ft.

ALAN E ZIMMER CHABAD PRESCHOOL **NJ SHWS** **S110747523**
3048 VALLEY RD **N/A**
BERNARDS TWP, NJ

Relative:
Higher

Actual:
254 ft.

SHWS:

Site ID:	361627
Status:	Closed
Home Owner:	No
PI Number:	446685

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

Site ID:	361627
Status:	Closed
Home Owner:	No
PI Number:	535276

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

113
ENE
1/2-1
0.685 mi.
3617 ft.

1603 LONG HILL RD
1603 LONG HILL RD
LONG HILL TWP, NJ

NJ SHWS **S109306486**
N/A

Relative:
Higher

Actual:
392 ft.

SHWS:
Site ID: 67953
Status: Closed
Home Owner: No
PI Number: G000022790

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

114
SSW
1/2-1
0.687 mi.
3628 ft.

35 CREST DRIVE
35 CREST DR
BERNARDS TWP, NJ 07920

NJ SHWS **S106466211**
NJ HIST HWS **N/A**
NJ VCP
NJ NJEMS
NJ Release

Relative:
Lower

Actual:
241 ft.

SHWS:
Site ID: 182969
Status: Closed
Home Owner: Yes
PI Number: 239440

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

HIST SHWS:
Case Status: **Active**
Status Date: 11/29/2004
Case ID: 239440
Contact: Bureau of Field Operations - Northern
Sub Section Label: A: Sites with On-Site Sources of Contamination
Site Municipality: 1802
Remedial Level Code: C1
Classification exception area dt: None
Classification exception area dt: Not reported
Deed Notice Status: None
Deed Notice Date: Not reported
Engineering Control Status: None
Engineering Control Date: Not reported
National Priorities List Status: Not reported
National Priorities List Date: Not reported
X Coordinate: 483705
Y Coordinate: 666204
Coordinate System: NJ State Plane (NAD83) - USFEET

VCP:
Incident Number: 04-06-16-1022-22
MOA Execution Date: 11/05/2004
Type Of Vcp File: HISTORICAL

35 CREST DRIVE (Continued) **S106466211**

Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	182969
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483798
Y Coord:	665995
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	Hard Copy Map
Coord Orign:	DEP-Program
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	06/16/2004
Incident Time:	Not reported
Trenton Dispatch Log Number:	101322
Case Number:	04-06-16-1022-22
Date Received:	06/16/2004
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported

35 CREST DRIVE (Continued) **S106466211**

A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	06/16/2004
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported

35 CREST DRIVE (Continued) **S106466211**

Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	LIONEL WHITE
Incident Address:	35 CREST DR
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ 07920
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

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115 **HOME OWNER ASSOCIATION** **NJ SHWS** **S109307909**
SSE **42 RAINBOW DR** **N/A**
1/2-1 **LONG HILL TWP, NJ**
0.691 mi.
3650 ft.

Relative: **Lower**
Actual: **218 ft.**

SHWS:

Site ID:	73264
Status:	Closed
Home Owner:	No
PI Number:	G000032538

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

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116 **ESTATE OF SHAW** **NJ SHWS** **S118962108**
NNW **490 S MAPLE AVE** **NJ NJEMS** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920** **NJ Release**
0.723 mi.
3819 ft.

Relative: **Higher**
Actual: **246 ft.**

SHWS:

Site ID:	585978
Status:	Closed
Home Owner:	No
PI Number:	734280

Detail As Of April 2012:

X Coord Site:	Not reported

ESTATE OF SHAW (Continued) **S118962108**

X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	585978
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483534
Y Coord:	673755
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-SRP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	07/12/2016
Incident Time:	Not reported
Trenton Dispatch Log Number:	607922
Case Number:	16-07-12-1113-40
Date Received:	07/12/2016
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported

ESTATE OF SHAW (Continued) **S118962108**

Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments:	Not reported
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	07/12/2016
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	ADRIAN SHAW
Incident Address:	16 FREDERICK COURT
Incident Address 2:	Not reported

ESTATE OF SHAW (Continued) **S118962108**

Incident City,St,Zip:	Bernards Twp, NJ 07920
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

T117 **NJ SHWS** **S111260671**
SSW **47 CREST DR** **NJ Release** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920**
0.730 mi.
3856 ft. **Site 1 of 2 in cluster T**

Relative:
Higher

Actual:
244 ft.

SHWS:

Site ID:	463325
Status:	Closed
Home Owner:	Yes
PI Number:	584483

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	05/09/2011
Incident Time:	Not reported
Trenton Dispatch Log Number:	385966
Case Number:	11-05-09-1117-37
Date Received:	05/09/2011
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported

(Continued) **S111260671**

Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	05/09/2011
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED

(Continued) **S111260671**

Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	THOMAS HIMMELREICH
Incident Address:	47 CREST DR
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ 07920
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

118
SW
1/2-1
0.736 mi.
3886 ft.

3066 VALLEY RD
3066 VALLEY RD
BERNARDS TOWNSHIP, NJ 07920

NJ SHWS **S105069125**
NJ HIST HWS **N/A**
NJ VCP
NJ BROWNFIELDS
NJ SPILLS

Relative:
Higher

Actual:
256 ft.

SHWS:

Site ID:	179032
Status:	Closed
Home Owner:	No
PI Number:	G000062374

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

HIST SHWS:

Case Status:	**Active**
Status Date:	8/28/2001
Case ID:	G000062374
Contact:	Bureau of Field Operations - Northern
Sub Section Label:	A: Sites with On-Site Sources of Contamination
Site Municipality:	1802
Remedial Level Code:	C1
Classification exception area dt:	Not reported
Classification exception area dt:	Not reported
Deed Notice Status:	Not reported
Deed Notice Date:	Not reported

3066 VALLEY RD (Continued) **S105069125**

Engineering Control Status:	Not reported
Engineering Control Date:	Not reported
National Priorities List Status:	Not reported
National Priorities List Date:	Not reported
X Coordinate:	479641
Y Coordinate:	667402
Coordinate System:	NJ State Plane (NAD83) - USFEET

VCP:

Incident Number:	01-04-27-1538-50
MOA Execution Date:	08/28/2001
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

BROWNFIELDS:

Price:	Not reported
Assessed Value:	Not reported
Property Size:	Unknown
Annual Taxes:	Not reported
Representative Address:	Not reported
Representative City/State/Zip:	Not reported
Submitter Name:	Not reported
Submitter Address1:	Not reported
Submitter Address2:	Not reported
Submitter City:	Not reported
Submitter State:	Not reported
Submitter Zip:	Not reported
Submitter Email:	Not reported
Submitter Phone:	Not reported
Transaction Type:	Not reported
Transfer Type:	Not reported
Site Number:	9914
X Coordinate:	482546
Y Coordinate:	666365
Coord:	482546:666365
AutoID:	Not reported
Ownership Type:	unknown
Ownership:	DEP Case
PStatus:	DEP Case
PI Number:	G000062374
Owner Name:	Not reported
Owner Address + Owner Street:	Not reported
Owner City:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner County:	Not reported
Owner Phone:	9999999999
Owner Fax:	9999999999

3066 VALLEY RD (Continued) **S105069125**

Owner Email:	Not reported
Owner Organization:	Not reported
Authorized Representative:	Not reported
Auth Rep Relation to Owner:	Not reported
Municipal Contact Name:	Not reported
Municipal Contact Street:	Not reported
Municipal Contact City:	Not reported
Municipal Contact State:	Not reported
Municipal Contact Zip Code:	Not reported
Municipal Contact Phone:	9999999999
Municipal Contact Fax:	9999999999
Municipal Contact Email:	Not reported
Department:	Not reported
Municipal Contact Title:	Not reported
Contact Relation to Owner:	Not reported
Current Zoning:	Not reported
Proposed Zoning:	Not reported
Copy of Title Insurance:	Not reported
Block:	Not reported
Lot:	Not reported
Development Plan Completed:	Unknown
Market Study Completed:	Unknown
Current Activity:	Not reported
Current Operations:	Not reported
Prior Operations:	Not reported
Deed Restrictions:	Unknown
Easements:	Unknown
Buildings:	Not reported
Condition of Buildings:	Not reported
Square Footage:	Not reported
Total Buildable Space:	Not reported
Lease Price:	Not reported
Tax Certificate:	Unknown
Tax Lien:	Unknown
Other Liens/Judgements:	No
Traffic Study:	Unknown
Road Access:	Not reported
Waterfront Access:	Unknown
Airport Access:	Unknown
Public Transportation Access:	Unknown
Major Highway Name:	Not reported
Major Highway Interchange:	Not reported
Major Highway Miles Away:	Not reported
Local Highway Name:	Not reported
Local Highway Interchange:	Not reported
Local Highway Miles Away:	Not reported
Rail Type:	Not reported
Rail Name:	Not reported
Rail Station:	Not reported
Rail Miles Away:	Not reported
Public Water:	Unknown
Electric:	Unknown
Gas:	Unknown
Public Sewer:	Unknown
Telephone:	Unknown
Cable:	Unknown
Fiber Optics:	Unknown

3066 VALLEY RD (Continued) **S105069125**

Wetlands:	No
Sensitive Ecosystems/Habitats:	No
Endangered Species:	No
Historic/Archeological Site:	No
100 Year Flood Plain:	No
500 Year Flood Plain:	No
Environmental Report Copies:	Yes
List Containing Site:	Not reported
Preliminary Assessment:	No
Site Investigation:	No
Remedial Investigation:	No
Remedial Action Workplan:	No
Voluntary Cleanup Program:	No
Environmental Litigation:	No
Remediation In Progress:	Yes
Remediation Estimated Complete Date:	Not reported
Regulatory sign-off:	No
Regulatory Sign-Off Description:	Not reported
Other Incentives:	No
Low Interest Rates:	No
HDSRF Grants:	No
TIF:	No
HDSRF Loans:	No
USA Loans:	No
USA Grants:	No
Designated Redevelopment Area:	No
Environmental Opportunity Zone:	No
Tax Rebate or Abatement:	No
Empowerment Zone (Federal):	No
Urban Coordinating Council Neighborhood:	No
Enterprise Community (Federal):	No
Urban Enterprise Zone:	No
Additional Comments:	1) Assigned to Program,8/28/2001 2) C1: No Formal Design - Source Known or Identified-Potential GW Contamination established 11/19/2001
County_int_FK:	18
Municipality_int_FK:	480
Planning Area Designation:	Planning Area 2
Authorized Representative Email:	Not reported
Authorized Representative Phone:	9999999999
General Comments:	Not reported

NJ SPILL:

Trenton Dispatch Log Number:	77564
Case Number:	01-04-27-1538-50
Notify Type:	Other
Date Received:	04/27/2001
Location:	Other
Other Location:	Not reported
Incident Date:	04/27/2001
Incident Time:	1440
A310 Letter:	True
Ref. Code:	101
COMU:	1802
CAS Number:	Not reported
Hazardous:	No
Incident Location:	Not reported
Facility Type:	Residential

3066 VALLEY RD (Continued) **S105069125**

Facility Phone:	908-647-9141
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
Amnt Released:	Not reported
Release VE:	Not reported
Contained:	Not reported
Release Type:	Not reported
Incident Desc:	Not reported
Status at Spill:	1/550 GAL UST LEAKING IN PLACE. MATERIAL OBSERVED IN BASEMENT SUMP PUMP . CLEAN UP PENDING.
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Phone:	Not reported
Injuries:	No
Public Exposure:	No
Road Closed:	No
Facility Evacuation:	No
Receiving Water:	Not reported
Public Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Land
Nature of Incident:	Not reported
Wind Direction/Speed:	0
Assistance Requested:	No
Memo. Of Understanding:	No
Drill/trng Exercise:	No
Operator:	CHRIS
Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Phone:	Not reported
Responsible Party:	Known
Responsible Party Name:	RESIDENCE
Responsible Party Contact:	JENNIE BATE
Responsible Party Title:	OWNER
Responsible Party Telphone:	908-647-9141
Responsible Party Street:	3066 VALLEY RD
Responsible Party Municipality:	BASKING RIDGE
Responsible Party State:	NJ
Responsible Party Zip:	07920
Responsible City,St,Zip:	BASKING RIDGE, NJ
Responsible Party County:	SOMERSET
Local Municipality:	No
Local Municipality Name:	Not reported

3066 VALLEY RD (Continued) **S105069125**

Local Municipality Title:	Not reported
Local Municipality Phone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Phone:	Not reported
Incident Date:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Update:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Reporter Name:	Not reported
Reporter Type:	Not reported
Rep Received Date:	Not reported
Reporter Title:	Not reported
Reporter Orgzn:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Type:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported

T119 **53 CREST DRIVE** **NJ SHWS** **S109293143**
SSW **53 CREST DR** **NJ NJEMS** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920**
0.750 mi.
3961 ft. **Site 2 of 2 in cluster T**

Relative:
Higher

Actual:
243 ft.

SHWS:

Site ID:	123758
Status:	Closed
Home Owner:	No
PI Number:	162729

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	123758
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802

53 CREST DRIVE (Continued) **S109293143**

X Coord:	483810
Y Coord:	665539
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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120 **189 STONEHOUSE ROAD** **NJ SHWS S109292595**
West **189 STONEHOUSE RD** **NJ NJEMS N/A**
1/2-1 **BERNARDS TWP, NJ 07920**
0.752 mi.
3972 ft.

Relative:
Higher

Actual:
288 ft.

SHWS:

Site ID:	118229
Status:	Closed
Home Owner:	No
PI Number:	155806

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	118229
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	481086
Y Coord:	670224
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

121
ENE
1/2-1
0.771 mi.
4070 ft.

1462 LONG HILL RD
1462 LONG HILL RD
LONG HILL TWP, NJ

NJ SHWS **S109308648**
N/A

Relative:
Higher

Actual:
385 ft.

SHWS:
Site ID: 74719
Status: Closed
Home Owner: No
PI Number: G000040738

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

122
WSW
1/2-1
0.782 mi.
4129 ft.

10 HAAS ROAD
10 HAAS RD
BERNARDS TWP, NJ 07920

NJ SHWS **S109311841**
NJ NJEMS **N/A**

Relative:
Higher

Actual:
244 ft.

SHWS:
Site ID: 83141
Status: Closed
Home Owner: No
PI Number: G000031955

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

NJEMS:

Site Id:	83141
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	480993
Y Coord:	668024
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	Exact Address Match
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

U123 **67 CREST DRIVE** **NJ SHWS** **S108398810**
SSW **67 CREST DR** **NJ VCP** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920** **NJ NJEMS**
0.801 mi.
4227 ft. **Site 1 of 2 in cluster U**

Relative:
Lower

Actual:
240 ft.

SHWS:

Site ID:	258463
Status:	Active
Home Owner:	Yes
PI Number:	331029

Detail As Of April 2012:

X Coord Site:	483914
X Coord PI:	Not reported
Y Coord Site:	665650
Y Coord PI:	Not reported

VCP:

Incident Number:	05-05-13-0938-59
MOA Execution Date:	01/11/2007
Type Of Vcp File:	CURRENT
Pi Number:	331029
Case Type(Case Type):	MOA
Case Contact: Department	Not reported
Case Contact Name:	JULIE RANDALL
Case Contact: Organization	Not reported
Case Contact: Address: Line1	24672 VIA TECOLOTE
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	CALABASIS, CA 91302

NJEMS:

Site Id:	258463
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483893
Y Coord:	665278
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

124
NE
1/2-1
0.804 mi.
4246 ft.

57 DOGWOOD TERRACE
57 DOGWOOD TER
LONG HILL TWP, NJ 07946

NJ SHWS **S115583874**
NJ NJEMS **N/A**

Relative:
Higher

Actual:
258 ft.

SHWS:

Site ID:	471947
Status:	Closed
Home Owner:	Yes
PI Number:	595771

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	471947
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	488623
Y Coord:	673109
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

U125
SSW
1/2-1
0.810 mi.
4278 ft.

70 CREST DRIVE
70 CREST DR
BERNARDS, NJ 07920
Site 2 of 2 in cluster U

NJ SHWS **S106209558**
NJ VCP **N/A**
NJ NJEMS
NJ Release

Relative:
Lower

Actual:
232 ft.

SHWS:

Site ID:	124940
Status:	Closed
Home Owner:	Yes
PI Number:	164943

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	02-08-21-1111-16

70 CREST DRIVE (Continued) **S106209558**

MOA Execution Date:	10/01/2002
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	124940
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	484306
Y Coord:	665228
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	08/21/2002
Incident Time:	Not reported
Trenton Dispatch Log Number:	31308
Case Number:	02-08-21-1111-16
Date Received:	08/21/2002
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	AT RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported

70 CREST DRIVE (Continued) **S106209558**

Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	08/21/2002
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED

70 CREST DRIVE (Continued) **S106209558**

Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	NANCY FENNIMORE
Incident Address:	70 CREST DR
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ 07920
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

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126 **214 OLD FORGE ROAD** **NJ SHWS** **S107085261**
NNE **214 OLD FORGE RD** **NJ NJEMS** **N/A**
1/2-1 **LONG HILL TWP, NJ 07946** **NJ Release**
0.836 mi.
4413 ft.

Relative:
Lower

Actual:
223 ft.

SHWS:

Site ID:	392694
Status:	Closed
Home Owner:	Yes
PI Number:	491239

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	392694
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	486404
Y Coord:	674342
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362

214 OLD FORGE ROAD (Continued) **S107085261**

Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	09/24/2004
Incident Time:	Not reported
Trenton Dispatch Log Number:	114925
Case Number:	04-09-24-1552-59
Date Received:	09/24/2004
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	AT
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported

214 OLD FORGE ROAD (Continued) **S107085261**

Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	09/24/2004
Reporter Type:	Facility Rep.
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	MARIA FARINHAS
Incident Address:	214 OLD FORGE RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Long Hill Twp, NJ 07946
Incident County:	Morris
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

V127 **STONEHOUSE RD SEWAGE PUMP STATI** **NJ SHWS** **U000367286**
WSW **STONEHOUSE RD** **NJ UST** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920**
0.837 mi.
4419 ft. **Site 1 of 2 in cluster V**

Relative:
Lower

Actual:
222 ft.

SHWS:
Site ID: 49119
Status: Closed
Home Owner: No
PI Number: 022817

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

UST:
Facility ID: 022817

Contact:
Owner Name: ROGER BOWLBY
Organization: BERNARDS TWP SEWERAGE AUTH
Contact Type(UST Reg): Facility Operator
Contact Address (UST Reg): PO BOX 247
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Liberty Corner, NJ 07938

Owner Name: ROGER BOWLBY
Organization: BERNARDS TWP SEWAGE AUTH
Contact Type(UST Reg): Tank Owner
Contact Address (UST Reg): PO BOX 247
Contact Address 2 (UST Reg): Not reported
Conact City,St,Zip (UST Reg): Liberty Corner, NJ 07938

Tanks:
Tank Id: TANK-1
Tank Number: E001
Tank Status: **Removed**
Tank Status Date: 12/09/1992
Install Date: 01/01/1985
Tank Contents: Medium Diesel Fuel (No. 2-D)
Tank Size: 550
Tank Compliance: No
Overfill: No
Compliance Monitoring?: No
Overfill Protection: No
Spill Containment: No
Tank Wellhead Protection: Not reported
Tank/Pipe Construction Type: Pipe Cathodically protected steel
Tank/Pipe Construction Type: Tank Cathodically protected steel
Tank/Pipe Monitor: Pipe None
Tank/Pipe Monitor: Tank None

V128 **3137 VALLEY ROAD** **NJ SHWS** **S109531432**
WSW **3137 VALLEY RD** **NJ NJEMS** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920**
0.846 mi.
4465 ft. **Site 2 of 2 in cluster V**

Relative:
Lower

Actual:
228 ft.

SHWS:
Site ID: 383132
Status: Closed
Home Owner: Yes
PI Number: 478047

Detail As Of April 2012:
X Coord Site: Not reported
X Coord PI: Not reported
Y Coord Site: Not reported
Y Coord PI: Not reported

NJEMS:

Site Id:	383132
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	480954
Y Coord:	667288
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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129 **3129 VALLEY ROAD** **NJ SHWS** **S107095175**
WSW **3129 VALLEY RD** **NJ NJEMS** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920** **NJ Release**
0.862 mi.
4553 ft.

Relative:
Lower

Actual:
233 ft.

SHWS:
Site ID: 197583
Status: Active
Home Owner: Yes
PI Number: 259357

Detail As Of April 2012:
X Coord Site: 481226
X Coord PI: Not reported
Y Coord Site: 667167
Y Coord PI: Not reported

NJEMS:
Site Id: 197583

3129 VALLEY ROAD (Continued) **S107095175**

Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	481033
Y Coord:	667156
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	06/09/2005
Incident Time:	Not reported
Trenton Dispatch Log Number:	146977
Case Number:	05-06-17-1743-15
Date Received:	06/17/2005
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	AT RESIDENCE
Location:	Not reported
Other Location:	Not reported
Contact Name:	KRISTIN WALSH
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No

3129 VALLEY ROAD (Continued) **S107095175**

Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	06/17/2005
Reporter Type:	Citizen Complaint
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	HOMEOWNER
Incident Address:	3129 VALLEY RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Bernards Twp, NJ 07920
Incident County:	Somerset
DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	No
Direction:	Not reported

3129 VALLEY ROAD (Continued) **S107095175**

Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

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130 **17 SUN ROAD** **NJ SHWS** **S102209007**
SSW **17 SUN RD** **NJ NJEMS** **N/A**
1/2-1 **BERNARDS TWP, NJ 07920** **NJ Release**
0.879 mi.
4640 ft.

Relative:
Higher

Actual:
243 ft.

SHWS:

Site ID:	82227
Status:	Closed
Home Owner:	No
PI Number:	G000024017

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

NJEMS:

Site Id:	82227
Municipality:	BERNARDS TWP
Municipality Name From Spatial Overlay:	BERNARDS TWP
GNIS Civil Code For Municipality:	882174
Municipal Code (NJ-1040):	1802
X Coord:	483999
Y Coord:	664869
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1802
Unique Feature Number For Municipality From Spatial Overlay:	3403505560
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	09/19/1994
Incident Time:	1300

17 SUN ROAD (Continued) **S102209007**

Trenton Dispatch Log Number:	16993
Case Number:	94-9-19-1436-04
Date Received:	09/19/1994
Nature of Incident:	Municipal
Operator:	ROGER
Incident Type:	Not reported
Incident Location:	Not reported
Location:	Other
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	REDACTED
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	OIL FUEL #2
Substance Type:	Liquid
Substance Identity:	Known
CAS Number:	Not reported
A310 Letter:	No
TCPA Chemical:	No
Hazrds Material:	Yes
COMU:	1802
Ref. Code:	101
Amt Released:	UNK
Contained:	Yes
Release Type:	Terminated
Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Land
Receiving Water:	Not reported
Status at Spill:	1-550 GAL UST REMOVED SOIL CONTAMINATION DISCOVERED CLEAN UP IS IN PROGRESS.
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	No
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	U.S.T.

17 SUN ROAD (Continued) **S102209007**

Incident Name:	Not reported
Incident Referred To:	DRPSR
Incident Region:	BFO-CAS
Incident Telephone:	Faxed,Mailed
Incident Date:	09/19/1994
Incident time:	Not reported
Incident ITM:	B
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	Not reported
Reporter Type:	Not reported
Reporter Name:	Not reported
Reporter Title:	Not reported
Reporter Org:	Not reported
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Not reported
Incident Category:	Not reported
Incident Source:	Not reported
Incident Address:	Not reported
Incident Address 2:	Not reported
Incident City,St,Zip:	Not reported
Incident County:	Not reported
DEP Requested:	Not reported
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Known
Responsible Party Name:	RESIDENCE
Responsible Party Contact:	CALDERONE
Responsible Party Title:	OWNER
Responsible Party Phone:	Not reported
Responsible Party Street:	17 SUN RD
Responsible Party County:	SOMERSET
Responsible Party City,St,Zip:	BERNARDS TWP, NJ
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

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131 **249 OLD FORGE ROAD** **NJ SHWS** **S106761797**
NNE **249 OLD FORGE RD** **NJ VCP** **N/A**
1/2-1 **LONG HILL TWP, NJ 07946** **NJ NJEMS**
0.928 mi.
4900 ft.

Relative:
Lower

Actual:
219 ft.

SHWS:

Site ID:	73195
Status:	Closed
Home Owner:	No
PI Number:	G000031353

Detail As Of April 2012:

249 OLD FORGE ROAD (Continued) **S106761797**

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	97-04-11-1129-18
MOA Execution Date:	05/07/1997
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Roderick G Lee
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	73195
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	487071
Y Coord:	674905
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010070
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Dead R to Osborn Mills)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

W132 **HADLET & PODILCHUK** **NJ SHWS** **S110514047**
ESE **1576 VALLEY RD** **NJ NJEMS** **N/A**
1/2-1 **LONG HILL TWP, NJ 07946** **NJ Release**
0.942 mi.
4975 ft. **Site 1 of 2 in cluster W**

Relative:
Higher

Actual:
264 ft.

SHWS:

Site ID:	432313
Status:	Closed
Home Owner:	Yes
PI Number:	542641

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported

HADLET & PODILCHUK (Continued) **S110514047**

Y Coord PI: Not reported

NJEMS:

Site Id:	432313
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	490284
Y Coord:	668042
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	GIS Parcel Centroid
Coord Orign:	DEP-GIS
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010110
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Plainfield Rd to Dead R)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

NJ Release:

Facility Type:	Residential
Facility Phone:	Not reported
Incident Date:	02/02/2010
Incident Time:	Not reported
Trenton Dispatch Log Number:	339902
Case Number:	10-02-02-1002-21
Date Received:	02/02/2010
Nature of Incident:	Not reported
Operator:	Not reported
Incident Type:	Underground Storage Tank
Incident Location:	RESIDENTIAL
Location:	Not reported
Other Location:	Not reported
Contact Name:	Not reported
Caller Name:	Not reported
Caller Title:	Not reported
Caller Address:	Not reported
Caller City,St,Zip:	Not reported
Caller Telephone:	Not reported
Substance(s):	Not reported
Substance Type:	Not reported
Substance Identity:	Not reported
CAS Number:	Not reported
A310 Letter:	Not reported
TCPA Chemical:	Not reported
Hazrds Material:	Not reported
COMU:	Not reported
Ref. Code:	Not reported
Amt Released:	Not reported
Contained:	Not reported
Release Type:	Not reported

HADLET & PODILCHUK (Continued) **S110514047**

Release VE:	Not reported
Injuries:	No
Public Exposure:	No
Facility Evacuation:	No
Police at Scene:	No
Firemen at Scene:	No
Contamination of:	Not reported
Receiving Water:	Not reported
Status at Spill:	Not reported
NJ Spill Date:	Not reported
NJ Spill Time:	Not reported
NJ Spill Name:	Not reported
NJ Spill Title:	Not reported
NJ Spill Phone:	Not reported
Other Date:	Not reported
Other Time:	Not reported
Other Name:	Not reported
Other Title:	Not reported
Other Telephone:	Not reported
Public Evacuation:	No
Assistance Requested:	Not reported
Wind Direction/Speed:	Not reported
Local Municipality Notified:	Not reported
Local Municipality Name:	Not reported
Local Municipality Title:	Not reported
Local Municipality Telephone:	Not reported
Local Municipality Date:	Not reported
Local Municipality Time:	Not reported
Incident Description:	Not reported
Incident Name:	Not reported
Incident Referred To:	Not reported
Incident Region:	Not reported
Incident Telephone:	Not reported
Incident Date:	Not reported
Incident time:	Not reported
Incident ITM:	Not reported
Comments: Not reported	
Date A310 Letter Printed:	Not reported
Date Local Authority Was Notified:	Not reported
Date Updated:	Not reported
Date Report Faxed to Local Authority:	Not reported
Local Authority Notification Date:	Not reported
Rep Receive Date:	02/02/2010
Reporter Type:	Other
Reporter Name:	REDACTED
Reporter Title:	REDACTED
Reporter Org:	REDATED
Reporter Address:	Not reported
Reporter City,St,Zip:	Not reported
Reporter County:	Not reported
Incident Status:	Terminated
Incident Category:	Other
Incident Source:	MARTHA PODILCHUK
Incident Address:	1576 VALLEY RD
Incident Address 2:	Not reported
Incident City,St,Zip:	Long Hill Twp, NJ 07946
Incident County:	Morris

HADLET & PODILCHUK (Continued) **S110514047**

DEP Requested:	No
Confidential:	Not reported
Notify Type:	Not reported
Road Closed:	Not reported
Direction:	Not reported
Responsible Party:	Not reported
Responsible Party Name:	Not reported
Responsible Party Contact:	Not reported
Responsible Party Title:	Not reported
Responsible Party Phone:	Not reported
Responsible Party Street:	Not reported
Responsible Party County:	Not reported
Responsible Party City,St,Zip:	Not reported
Memo. Of Understanding:	Not reported
Drill/trng Exercise:	Not reported
Hazardous:	Not reported

W133 **1554 VALLEY ROAD** **NJ SHWS** **S106575286**
ESE **1554 VALLEY RD** **NJ HIST HWS** **N/A**
1/2-1 **LONG HILL TWP, NJ 07946** **NJ VCP**
0.986 mi. **NJ NJEMS**
5207 ft. **Site 2 of 2 in cluster W**

Relative:
Higher

Actual:
264 ft.

SHWS:

Site ID:	74358
Status:	Closed
Home Owner:	No
PI Number:	G000038791

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

HIST SHWS:

Case Status:	**Active**
Status Date:	5/3/1999
Case ID:	G000038791
Contact:	Bureau of Field Operations - Northern
Sub Section Label:	A: Sites with On-Site Sources of Contamination
Site Municipality:	1430
Remedial Level Code:	C1
Classification exception area dt:	None
Classification exception area dt:	Not reported
Deed Notice Status:	None
Deed Notice Date:	Not reported
Engineering Control Status:	None
Engineering Control Date:	Not reported
National Priorities List Status:	Not reported
National Priorities List Date:	Not reported
X Coordinate:	490541
Y Coordinate:	667787
Coordinate System:	NJ State Plane (NAD83) - USFEET

VCP:

Incident Number:	99-04-16-1148-26

1554 VALLEY ROAD (Continued) **S106575286**

MOA Execution Date:	05/04/1999
Type Of Vcp File:	HISTORICAL
Pi Number:	Not reported
Case Type(Case Type):	Not reported
Case Contact: Department	Not reported
Case Contact Name:	Not reported
Case Contact: Organization	Not reported
Case Contact: Address: Line1	Not reported
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Not reported

NJEMS:

Site Id:	74358
Municipality:	LONG HILL TWP
Municipality Name From Spatial Overlay:	LONG HILL TWP
GNIS Civil Code For Municipality:	882196
Municipal Code (NJ-1040):	1430
X Coord:	490541
Y Coord:	667787
Coord System:	NJ STATE PLANE (NAD83) - USFEET
Coord Type:	Digital Image
Coord Orign:	DEP-Program
State Standard Numeric Code From Spatial Overlay:	1430
Unique Feature Number For Municipality From Spatial Overlay:	3402741362
Eleven Digit Hydrologic Unit Code From Spatial Overlay):	02030103010
Fourteen Digit Hydrologic Unit Code From Spatial Overlay:	02030103010110
Watershed Management Area Number From Spatial Overlay:	06
Watershed Management Area Name From Spatial Overlay:	Upper Passaic, Whippany, and Rockaway
Water Region Code From Spatial Overlay:	1
Water Region Name From Spatial Overlay:	Northeast
Sub Watershed Name From Overlay:	Passaic R Upr (Plainfield Rd to Dead R)
Watershed Name From Spatial Overlay:	Passaic River Upr (above Pine Bk br)

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134 **283 OLD FORGE ROAD** **NJ SHWS S108656679**
NNE **283 OLD FORGE RD** **NJ VCP N/A**
1/2-1 **LONG HILL TWP, NJ 07946**
0.994 mi.
5250 ft.

Relative:
Lower

Actual:
219 ft.

SHWS:

Site ID:	358238
Status:	Closed
Home Owner:	Yes
PI Number:	442963

Detail As Of April 2012:

X Coord Site:	Not reported
X Coord PI:	Not reported
Y Coord Site:	Not reported
Y Coord PI:	Not reported

VCP:

Incident Number:	06-10-11-1813-13
MOA Execution Date:	08/03/2007
Type Of Vcp File:	CURRENT
Pi Number:	442963

283 OLD FORGE ROAD (Continued) **S108656679**

Case Type(Case Type):	MOA
Case Contact: Department	Not reported
Case Contact Name:	JANE M EDWARD
Case Contact: Organization	Not reported
Case Contact: Address: Line1	283 OLD FORGE RD
Case Contact: Address: Line2	Not reported
Case Contact: Address: Line3	Not reported
Case Contact City,St,Zip:	Millington, NJ 07946

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LONG HILL TWP	S108062374	1926 & 1936 LONG HILL ROAD (COMMER	1926 & 1936 LONG HILL RD	07946	NJ VCP
LONG HILL TWP	S106763251	PHILIP M BARDY ET AL TRACT	CARLTON RD	07946	NJ SHWS, NJ VCP

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/04/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 10/25/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 43

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/07/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 45

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Known Contaminated Sites in New Jersey

The Known Contaminated Sites in New Jersey includes sites under the purview of the Site Remediation Program which have contamination present at levels greater than the applicable cleanup criteria for soil and/or groundwater standards. The sites appearing in Known Contaminated Sites in New Jersey are classified as either active, where the site is assigned to a specific remedial program area, or pending, where the site is awaiting assignment to a specific remedial program area. Sites where no further action (NFA) designation has been given are not included in this report unless there are other areas of identified contamination which have not been remediated. This report includes sites being remediated under all of the various regulatory programs administered by the Site Remediation Program such as: Federal Superfund Program, Federal Resource Conservation and Recovery Act (RCRA), New Jersey's Industrial Site Recovery Act (ISRA), New Jersey's Underground Storage of Hazardous Substances Act, New Jersey's Spill Compensation and Control Act, New Jersey's Solid Waste Management Act, New Jersey's Water Pollution Control Act.

Date of Government Version: 10/23/2018
Date Data Arrived at EDR: 10/24/2018
Date Made Active in Reports: 11/05/2018
Number of Days to Update: 12

Source: New Jersey Department of Environmental Protection
Telephone: 609-292-8761
Last EDR Contact: 11/15/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

HWS RE-EVAL: Site Re-Evaluation Report

The locations were removed from the Known Contaminated Sites list for a variety of reasons. Some of the sites were taken off the list because they were inactive, some were not assigned a case worker and some were no longer contaminated. Inspectors from the DEP are now undertaking a full re-evaluation of each of the locations statewide. That includes visual and environmental tests to see whether contamination still exists.

Date of Government Version: 09/20/2007
Date Data Arrived at EDR: 10/12/2007
Date Made Active in Reports: 12/03/2007
Number of Days to Update: 52

Source: Department of Environmental Protection
Telephone: 609-984-3081
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: No Update Planned

HIST HWS: Known Contaminated Sites Listing

The Known Contaminated Sites in New Jersey report is a municipal listing of sites where contamination of soil and/or ground water is confirmed at levels greater than the applicable cleanup criteria or standards. Remedial activities are underway or required at the sites with an on-site source(s) of contamination and at locations where the source(s) of contamination is unknown. Sites with completed remedial work that require engineering and/or institutional controls have reporting measures in place to ensure the effectiveness of past actions, and some include maintenance and/or monitoring

Date of Government Version: 05/09/2008
Date Data Arrived at EDR: 11/14/2008
Date Made Active in Reports: 11/26/2008
Number of Days to Update: 12

Source: Department of Environmental Protection
Telephone: 209-292-2943
Last EDR Contact: 03/16/2009
Next Scheduled EDR Contact: 06/15/2009
Data Release Frequency: No Update Planned

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facility Directory

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/03/2018
Date Made Active in Reports: 06/11/2018
Number of Days to Update: 39

Source: Department of Environmental Protection
Telephone: 609-984-6741
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Annually

State and tribal leaking storage tank lists

LUST: UST Active Remediation Sites Listing

A listing of regulated Underground Storage Tanks that have a cleanup underway.

Date of Government Version: 11/19/2018
Date Data Arrived at EDR: 11/19/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 18

Source: New Jersey Department of Environmental Protection
Telephone: 609-292-8761
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

HIST LUST: Historical Leaking USTs
This listing is no longer updated or maintained by the DEP.

Date of Government Version: 09/17/2002
Date Data Arrived at EDR: 01/27/2006
Date Made Active in Reports: 02/08/2006
Number of Days to Update: 12
Source: Department of Environment Protection
Telephone: 609-292-8761
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/08/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

UST: Underground Storage Tank Data
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 01/02/2019
Date Made Active in Reports: 01/22/2019
Number of Days to Update: 20

Source: Department of Environmental Protection
Telephone: 609-341-3121
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

MAJOR FACILITIES: List of Major Facilities

Major facilities means all facilities, located on one or more contiguous or adjacent properties owned or operated by the same person, having total combined storage capacity of 20,000 gallons or more for hazardous substances other than petroleum or petroleum products, or 200,000 gallons or more for hazardous substances of all kinds.

Date of Government Version: 10/29/2018
Date Data Arrived at EDR: 11/01/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: 609-292-1690
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Declaration Environmental Restriction/Deed Notice Sites

Legal Document that restricts the use of contaminated property; holds owner(s) to the regulatory/statutory requirements for cleanup.

Date of Government Version: 08/07/2018
Date Data Arrived at EDR: 10/17/2018
Date Made Active in Reports: 11/05/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: 609-341-3121
Last EDR Contact: 11/15/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

INST CONTROL: Classification Exception Area Sites

A Classification Exception Area is an institutional control providing notice that ground water contamination exists in a particular location above State standards.

Date of Government Version: 08/07/2018
Date Data Arrived at EDR: 10/17/2018
Date Made Active in Reports: 11/05/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: 609-341-3121
Last EDR Contact: 11/15/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Sites
Through the VCP, responsible parties, developers, local officials, or individuals may work with the department to remediate non-priority contaminated sites that pose no immediate threat to human health or the environment.

Date of Government Version: 01/12/2018
Date Data Arrived at EDR: 05/22/2018
Date Made Active in Reports: 07/02/2018
Number of Days to Update: 41
Source: Department of Environmental Protection
Telephone: 609-341-3121
Last EDR Contact: 12/27/2018
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Varies

PF: Publicly Funded Cleanups Site Status Report
The report focuses on publicly funded cleanups and features progress achieved and underway at all sites that are being addressed by the NJDEP with public funds.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 04/25/2005
Date Made Active in Reports: 05/06/2005
Number of Days to Update: 11
Source: Department of Environmental Protection
Telephone: 609-292-9418
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Database
Brownfields are identified as former or current commercial or industrial use sites that are presently vacant or underutilized, on which there is suspected to have been a discharge of a contamination to the soil or groundwater at concentrations greater than applicable cleanup criteria.

Date of Government Version: 11/16/2018
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 21
Source: Department of Environmental Protection
Telephone: 609-292-1251
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/18/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

NON OP LF: Non-Operating Landfills

The landfills described in this document are non-operating and historic landfills identified by, or reported to, the Department. Working with local and regional environmental agencies, community representatives, and through review of historic materials the Site Remediation Program is developing this inventory to prevent injury to human and ecological resources.

Date of Government Version: 06/26/2008
Date Data Arrived at EDR: 09/30/2010
Date Made Active in Reports: 10/15/2010
Number of Days to Update: 15

Source: Department of Environmental Protection
Telephone: 609-984-6650
Last EDR Contact: 12/13/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Varies

SWRCY: Approved Class B Recycling Facilities

"Class B recyclable material" means a source separated recyclable material which is subject to Department approval prior to receipt, storage, processing or transfer at a recycling center in accordance with N.J.S.A. 13:1E-99.34b.

Date of Government Version: 09/01/2018
Date Data Arrived at EDR: 10/31/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 37

Source: Department of Environmental Protection
Telephone: 609-984-6650
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

HIST LF: Solid Waste Facility Directory

Old or non-permitted solid waste facilities/landfills that are not included in the current solid waste facilities/landfills database.

Date of Government Version: 06/10/2003
Date Data Arrived at EDR: 02/19/2004
Date Made Active in Reports: 03/09/2004
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: 609-984-6880
Last EDR Contact: 02/19/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

NJEMS: New Jersey Environmental Management System
NJEMS Sites are points representing sites regulated by NJDEP under one or more regulatory permitting or enforcement programs, or sites that are otherwise of some interest to a NJDEP program. Program interests included in NJEMS are: Air, Communications Center, Discharge Prevention, Exams and Licensing, Fish Game and Wildlife, Green Acres, Hazardous Waste, Lab Certification, Land Use, Landscape Irrigation, Parks and Forestry, Pesticides, Pinelands, Planning, Radiation, Right-to-Know, Site Remediation, Soil Conservation, Solid Waste, TCPA, Water Quality, Water Supply, and Watershed Management.

Date of Government Version: 11/16/2018
Date Data Arrived at EDR: 11/19/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 18
Source: Department of Environmental Protection
Telephone: 609-633-1208
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental LIENS

A listing of properties with environmental liens. The listing includes sites from the Site Remediation & Waste Management Program Sites where the Department has placed either a 1st Priority or Regular Spill Fund Lien against. 1st Priority Type Lien - a lien placed against the property where the discharged occurred providing that the owners of the property have some responsibility towards the discharge. First Priority Lien is superior to other types of liens. Non-Priority (Regular) Type Lien - a lien placed against the Responsible Party & their revenues and all real and personal property, other than the real property comprising the location of the discharge.

Date of Government Version: 07/26/2018
Date Data Arrived at EDR: 10/05/2018
Date Made Active in Reports: 11/07/2018
Number of Days to Update: 33

Source: Department of Environmental Protection
Telephone: 609-341-3121
Last EDR Contact: 02/07/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

NJ Spills: Spills

Initial notification information of hazardous material incidents, where there is land contamination, reported to the Department of Environmental Protection's Environmental Action Line. The DEP has not conducted any investigation to determine its validity or accuracy.

Date of Government Version: 09/04/2018
Date Data Arrived at EDR: 11/01/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: 609-341-3121
Last EDR Contact: 11/15/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Annually

NJ Release: Hazardous Material Incident Database

Hazardous material release. Initial notification information reported to the Department of Environmental Protection's Environmental Action Line and the office has not conducted any investigations to determine its validity or accuracy.

Date of Government Version: 09/04/2018
Date Data Arrived at EDR: 11/01/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: 609-341-3121
Last EDR Contact: 11/15/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/15/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/11/2013
Number of Days to Update: 39

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 09/02/1997
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/06/2013
Number of Days to Update: 62

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 08/31/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Every 4 Years

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/16/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/26/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 08/13/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 36
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/14/2018
Date Data Arrived at EDR: 10/11/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 57
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/05/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/03/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2018
Date Data Arrived at EDR: 10/03/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/03/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/01/2018
Date Data Arrived at EDR: 10/30/2018
Date Made Active in Reports: 01/18/2019
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2018
Date Data Arrived at EDR: 10/12/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 56

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 12/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/12/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/15/2019
Next Scheduled EDR Contact: 04/15/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/29/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 37

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2018
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/15/2018
Date Data Arrived at EDR: 12/05/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 37

Source: EPA
Telephone: (212) 637-3000
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 06/19/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 87

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2018
Date Data Arrived at EDR: 08/22/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 44
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Quarterly

AIRS: Emissions Inventory Listing
An emission inventory is an estimate of air pollutant emissions in a given area. Emission inventories are fundamental building blocks used to develop air quality control strategies on a local, regional and national level. Emission inventories are also used to estimate the progress of an air quality program.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/25/2019
Number of Days to Update: 44
Source: Department of Environmental Protection
Telephone: 609-984-5483
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

CHROME: Chromate Chemical Production Waste Sites
Known chromate chemical production waste sites.

Date of Government Version: 07/02/2013
Date Data Arrived at EDR: 02/07/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 170
Source: Department of Environmental Protection
Telephone: 609-984-4071
Last EDR Contact: 02/08/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

COAL ASH: Coal Ash Listing
Coal combustion survey ash listing.

Date of Government Version: 05/10/2010
Date Data Arrived at EDR: 05/12/2010
Date Made Active in Reports: 06/28/2010
Number of Days to Update: 47
Source: Department of Environmental Protection
Telephone: 609-984-6985
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

DRYCLEANERS: Drycleaner List
A listing of registered drycleaners.

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 31
Source: Department of Environmental Protection
Telephone: 609-292-2795
Last EDR Contact: 02/04/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

Financial Assurance: Financial Assurance Information Listing
Financial Assurance information.

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/22/2018
Date Made Active in Reports: 07/02/2018
Number of Days to Update: 41

Source: Department of Environmental Protection
Telephone: 609-341-3121
Last EDR Contact: 11/15/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Semi-Annually

GW CONTAM AREAS: Groundwater Contamination Areas

This data identifies those sites where groundwater contamination has been identified and, where appropriate, the NJDEP has established a Classification Exception Area (CEA). CEAs are institutional controls in geographically defined areas within which the New Jersey Ground Water Quality Standards (NJGWQS) for specific contaminants have been exceeded. When a CEA is designated for an area, the constituent standards and designated aquifer uses are suspended for the term of the CEA. This data layer contains information about areas in the state which are specified as the Currently Known Extent (CKE) of ground water pollution. CKE areas are geographically defined areas within which the local ground water resources are known to be compromised because the water quality exceeds drinking water and ground water quality standards for specific contaminants.

Date of Government Version: 11/19/2018
Date Data Arrived at EDR: 11/19/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 18

Source: Department of Environmental Protection
Telephone: 609-777-0672
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

HIST MAJOR FACILITIES: List of Major Facilities

Major facilities means all facilities, located on one or more contiguous or adjacent properties owned or operated by the same person, having total combined storage capacity of 20,000 gallons or more for hazardous substances other than petroleum or petroleum products, or 200,000 gallons or more for hazardous substances of all kinds. This file contains detail information that is no longer available by the Department of Environmental Protection due to security concerns.

Date of Government Version: 01/02/2002
Date Data Arrived at EDR: 01/11/2006
Date Made Active in Reports: 01/11/2006
Number of Days to Update: 0

Source: Department of Environmental Protection
Telephone: 609-633-7476
Last EDR Contact: 02/02/2009
Next Scheduled EDR Contact: 05/04/2009
Data Release Frequency: No Update Planned

ISRA: ISRA Database

The ISRA process begins with determining if the Act applies to your type of business and transaction. The provisions of ISRA only apply to industrial establishments. What is an industrial establishment? The term "industrial establishment" refers to the type of business operations and transactions that would subject a facility to review under ISRA. An industrial establishment must meet each of the following three criteria: The place of business or real property at which such business is conducted, having a North American Industry Classification System (NAICS) code listed in N.J.A.C. 7:26 B - Appendix C subject to the specified exceptions and limitations. The place of business must have been engaged in operations on or after December 31, 1983; and The place of business must involve the generation, manufacture, refining, transportation, treatment, storage, handling, or disposal of hazardous substances or hazardous wastes.

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 01/22/2019
Number of Days to Update: 47

Source: Department of Environmental Protection
Telephone: 609-984-3081
Last EDR Contact: 12/13/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Quarterly

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 07/13/2018
Date Made Active in Reports: 08/01/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/07/2019
Next Scheduled EDR Contact: 04/22/2019
Data Release Frequency: Annually

NJPDES: New Jersey Pollutant Discharge Elimination System Dischargers

The NJPDES contains the names, addresses and other information of all permitted New Jersey Pollutant Discharge Elimination Sytem dischargers.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 11/29/2018
Date Made Active in Reports: 01/22/2019
Number of Days to Update: 54

Source: Department of Environmental Protection
Telephone: 609-984-4428
Last EDR Contact: 11/29/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 01/09/2009
Date Data Arrived at EDR: 02/25/2009
Date Made Active in Reports: 03/11/2009
Number of Days to Update: 14

Source: Department of Environmental Protection
Telephone: 609-292-0407
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the New Jersey Department of Environmental Protection in New Jersey.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: New Jersey Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the New Jersey Department of Environmental Protection in New Jersey.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: New Jersey Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the New Jersey Department of Environmental Protection in New Jersey.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: New Jersey Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/12/2018
Date Data Arrived at EDR: 11/14/2018
Date Made Active in Reports: 12/04/2018
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/12/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/30/2019
Date Made Active in Reports: 02/14/2019
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/30/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/11/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/16/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 11/08/2018
Date Made Active in Reports: 12/28/2018
Number of Days to Update: 50

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 01/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/07/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Center Listings
Source: Department of Human Services
Telephone: 609-292-1018

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Environmental Protection
Telephone: 609-984-2243

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

50 DIVISION AVENUE
50 DIVISION AVENUE
MILLINGTON, NJ 07946

TARGET PROPERTY COORDINATES

Latitude (North):	40.672224 - 40° 40' 20.01''
Longitude (West):	74.524422 - 74° 31' 27.92''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	540195.4
UTM Y (Meters):	4502269.5
State Plane X (Feet):	485351.1
State Plane Y (Feet):	669787.8
Elevation:	243 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6048997 BERNARDSVILLE, NJ
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

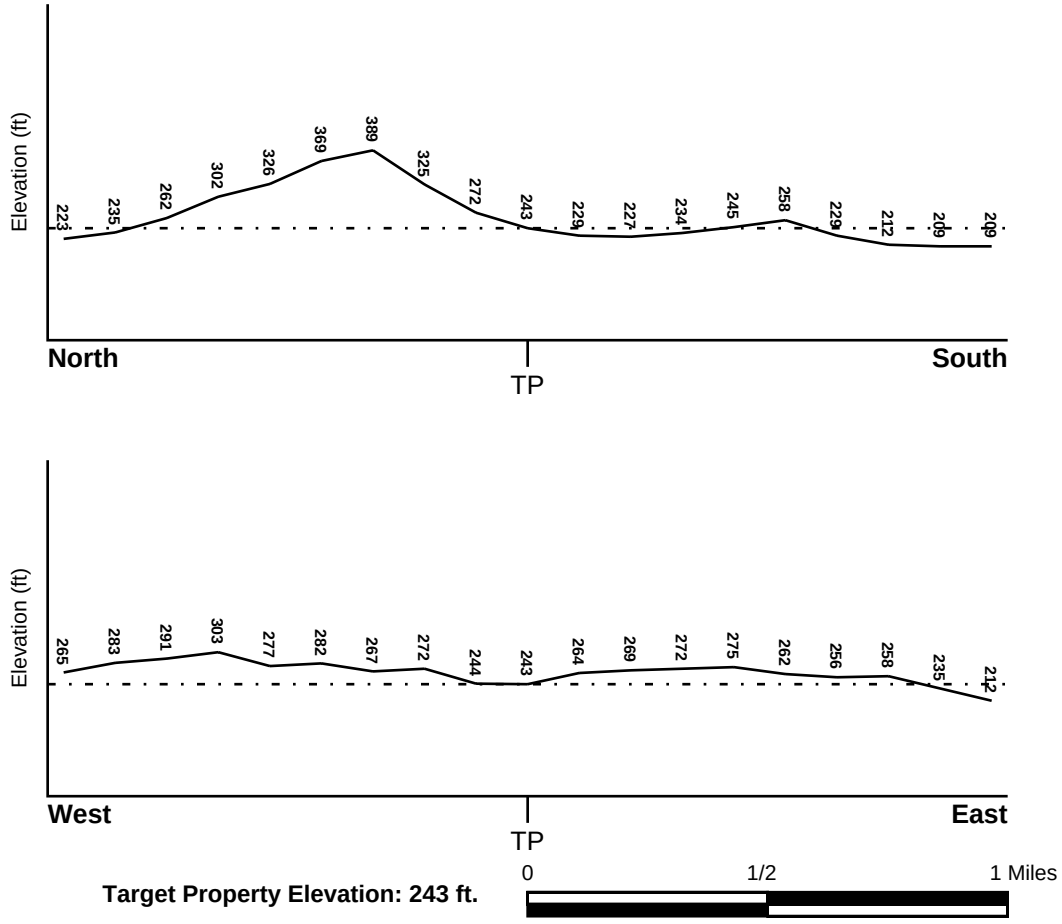
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
34035C0067E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
34035C0066E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BERNARDSVILLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

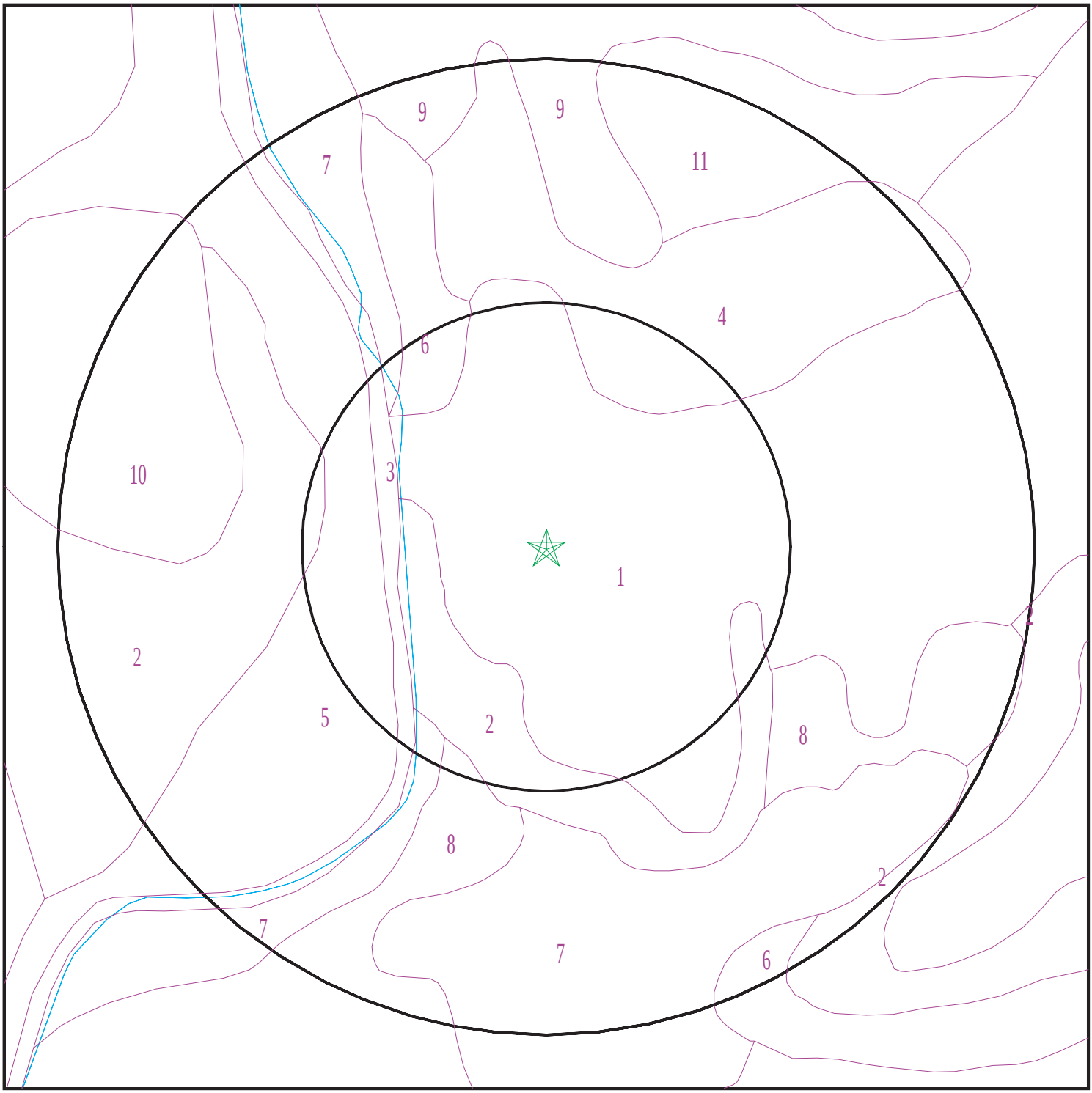
Era:	Mesozoic
System:	Triassic
Series:	Triassic
Code:	Tr *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5565949.2s



SITE NAME:	50 Division Avenue	CLIENT:	EWMA, LLC
ADDRESS:	50 Division Avenue Millington NJ 07946	CONTACT:	Frank Rooney
		INQUIRY #:	5565949.2s
LAT/LONG:	40.672224 / 74.524422	DATE:	February 19, 2019 7:52 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 2

Soil Component Name: Penn

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 42.34 Min: 1.41	Max: Min:
2	7 inches	20 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 42.34 Min: 1.41	Max: Min:
3	20 inches	25 inches	very channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 42.34 Min: 1.41	Max: Min:
4	25 inches	157 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 42.34 Min: 1.41	Max: Min:

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Urban land

Soil Surface Texture: variable

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 186 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 5

Soil Component Name: Bowmansville

Soil Surface Texture: silt loam

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 15 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	9 inches	16 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 1.41	Max: 6.5 Min: 5.1
2	25 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 1.41	Max: 6.5 Min: 5.1
3	37 inches	46 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 1.41	Max: 6.5 Min: 5.1
4	46 inches	59 inches	stratified gravel to sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 1.41	Max: 6.5 Min: 5.1
5	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 1.41	Max: 6.5 Min: 5.1
6	16 inches	25 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4.23 Min: 1.41	Max: 6.5 Min: 5.1

Soil Map ID: 6

Soil Component Name: Penn

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	14 inches	24 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
2	7 inches	14 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
3	0 inches	7 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
4	24 inches	29 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
5	29 inches	35 inches	very channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
6	35 inches	157 inches	weathered bedrock	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:

Soil Map ID: 7

Soil Component Name: Parsippany

Soil Surface Texture: slightly decomposed plant material

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 7 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	1 inches	slightly decomposed plant material	A-8	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
2	1 inches	4 inches	silt loam	A-8	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
3	4 inches	7 inches	silt loam	A-8	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
4	7 inches	11 inches	silty clay loam	A-8	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
5	11 inches	16 inches	silty clay loam	A-8	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
6	16 inches	22 inches	silty clay	A-8	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
7	22 inches	31 inches	silty clay	A-8	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1

Soil Map ID: 8

Soil Component Name: Reaville variant

Soil Surface Texture: channery silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 15 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	1 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
2	14 inches	20 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
3	7 inches	14 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
4	1 inches	7 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
5	20 inches	29 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
6	29 inches	44 inches	very channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:
7	44 inches	157 inches	weathered bedrock	Not reported	Not reported	Max: 1.41 Min: 0	Max: Min:

Soil Map ID: 9

Soil Component Name: Neshaminy

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 152 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Not reported	Not reported	Max: 14.11 Min: 1.41	Max: Min:
2	5 inches	11 inches	silt loam	Not reported	Not reported	Max: 14.11 Min: 1.41	Max: Min:
3	11 inches	29 inches	silty clay loam	Not reported	Not reported	Max: 14.11 Min: 1.41	Max: Min:
4	29 inches	42 inches	silt loam	Not reported	Not reported	Max: 14.11 Min: 1.41	Max: Min:
5	42 inches	59 inches	gravelly loam	Not reported	Not reported	Max: 14.11 Min: 1.41	Max: Min:
6	59 inches	157 inches	unweathered bedrock	Not reported	Not reported	Max: 14.11 Min: 1.41	Max: Min:

Soil Map ID: 10

Soil Component Name: Penn

Soil Surface Texture: channery silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 42.34 Min: 1.41	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	22 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 42.34 Min: 1.41	Max: Min:
3	22 inches	29 inches	very channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 42.34 Min: 1.41	Max: Min:
4	29 inches	157 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 42.34 Min: 1.41	Max: Min:

Soil Map ID: 11

Soil Component Name: Neshaminy

Soil Surface Texture: gravelly clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 186 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	11 inches	22 inches	gravelly clay loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 5.6
2	7 inches	11 inches	gravelly clay loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 5.6
3	0 inches	7 inches	gravelly silt loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 5.6
4	22 inches	38 inches	cobbly clay loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 5.6
5	38 inches	53 inches	cobbly clay loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 5.6
6	53 inches	59 inches	cobbly sandy loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 5.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

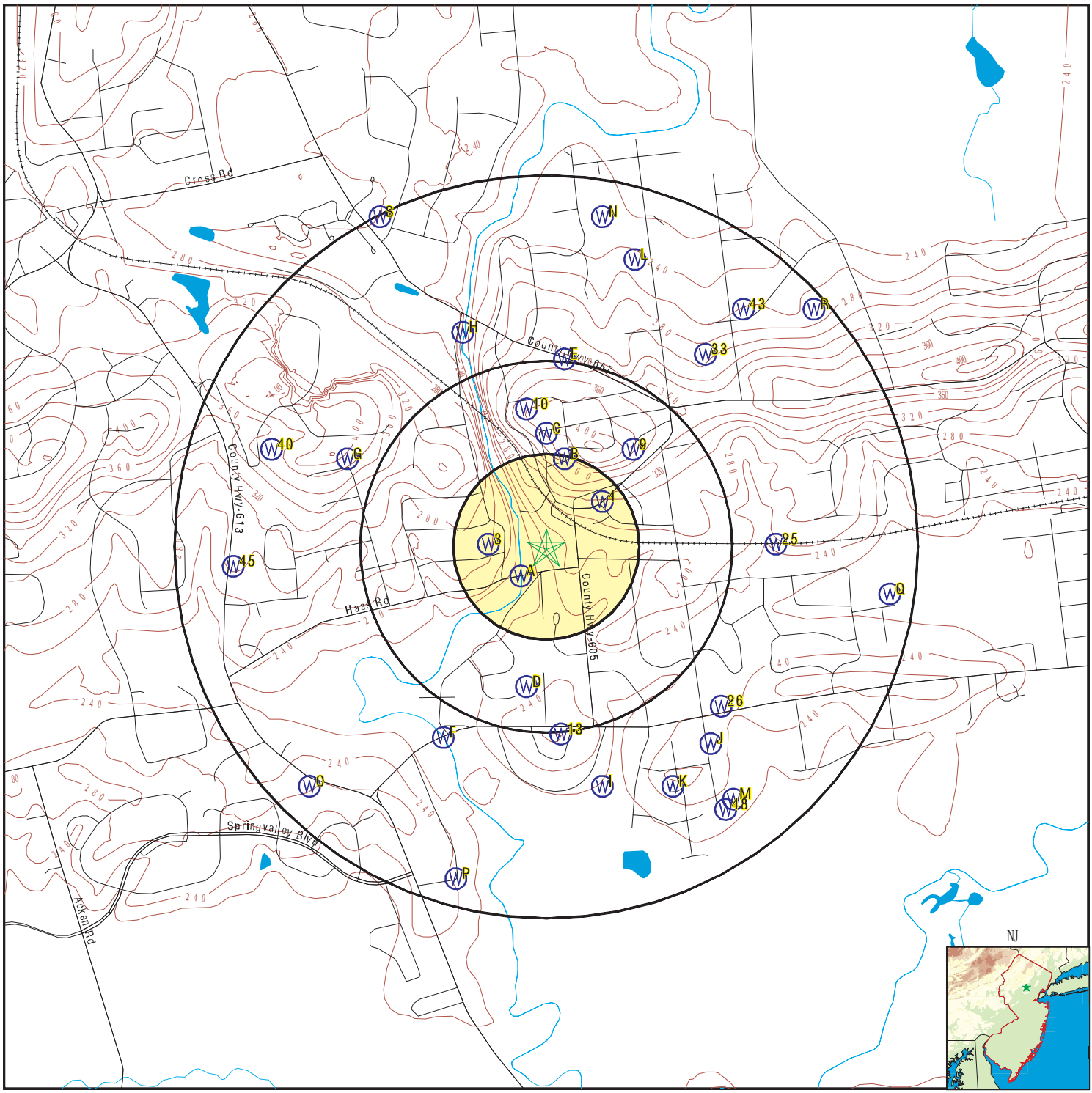
MAP ID	WELL ID	LOCATION FROM TP
A1	NJMONS100004799	0 - 1/8 Mile SW
A2	NJMONS100016385	0 - 1/8 Mile SW
3	NJDEP1000666064	1/8 - 1/4 Mile West
4	NJDEP1000416619	1/8 - 1/4 Mile NE
B5	NJDEP1000457535	1/8 - 1/4 Mile NNE
B6	NJDEP1000422602	1/8 - 1/4 Mile NNE
C7	NJDEP1000425954	1/4 - 1/2 Mile North
C8	NJDEP1000425955	1/4 - 1/2 Mile North
9	NJDEP1000427840	1/4 - 1/2 Mile NE
10	NJDEP1000418223	1/4 - 1/2 Mile North
D11	NJDEP1000440008	1/4 - 1/2 Mile South
D12	NJDEP1000440009	1/4 - 1/2 Mile South
13	NJDEP1000427426	1/2 - 1 Mile South
E14	NJDEP1000433022	1/2 - 1 Mile North
E15	NJDEP1000445148	1/2 - 1 Mile North
F16	NJMONS100003916	1/2 - 1 Mile SSW
F17	NJMONS100015215	1/2 - 1 Mile SSW
F18	NJMONS100001539	1/2 - 1 Mile SSW
F19	NJMONS100014184	1/2 - 1 Mile SSW
G20	NJDEP1000649185	1/2 - 1 Mile WNW
G21	NJDEP1000665666	1/2 - 1 Mile WNW
H22	NJMONS100014183	1/2 - 1 Mile NNW
H23	NJMONS100001538	1/2 - 1 Mile NNW
H24	NJMONS100002433	1/2 - 1 Mile NNW
25	NJDEP1000416004	1/2 - 1 Mile East
26	NJDEP1000422040	1/2 - 1 Mile SE
H27	NJMONS100015924	1/2 - 1 Mile NNW
H28	NJMONS100004548	1/2 - 1 Mile NNW
H29	NJMONS100013863	1/2 - 1 Mile NNW
H30	NJMONS100013864	1/2 - 1 Mile NNW
I31	NJDEP1000428352	1/2 - 1 Mile SSE
I32	NJDEP1000434426	1/2 - 1 Mile SSE
33	NJDEP1000431680	1/2 - 1 Mile NE
J34	NJDEP1000432488	1/2 - 1 Mile SE
J35	NJDEP1000444178	1/2 - 1 Mile SE
K36	NJDEP1000425633	1/2 - 1 Mile SSE
K37	NJDEP1000419120	1/2 - 1 Mile SSE
K38	NJDEP1000439513	1/2 - 1 Mile SSE
K39	NJDEP1000430104	1/2 - 1 Mile SSE
40	NJDEP1000665299	1/2 - 1 Mile WNW
L41	NJDEP1000416023	1/2 - 1 Mile NNE
L42	NJDEP1000416024	1/2 - 1 Mile NNE
43	NJDEP1000416708	1/2 - 1 Mile NE
M44	NJDEP1000418609	1/2 - 1 Mile SE
45	NJDEP1000660279	1/2 - 1 Mile West
M46	NJDEP1000424247	1/2 - 1 Mile SE
M47	NJDEP1000424248	1/2 - 1 Mile SE
48	NJDEP1000424585	1/2 - 1 Mile SE
N49	NJDEP1000416598	1/2 - 1 Mile North
N50	NJDEP1000436455	1/2 - 1 Mile North
N51	NJDEP1000436621	1/2 - 1 Mile North
O52	NJDEP1000642426	1/2 - 1 Mile SW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
O53	NJDEP1000646895	1/2 - 1 Mile SW
P54	NJDEP1000652090	1/2 - 1 Mile SSW
P55	NJDEP1000652091	1/2 - 1 Mile SSW
Q56	NJDEP1000416706	1/2 - 1 Mile East
Q57	NJDEP1000417248	1/2 - 1 Mile East
Q58	NJDEP1000439426	1/2 - 1 Mile East
R59	NJDEP1000447539	1/2 - 1 Mile NE
R60	NJDEP1000447540	1/2 - 1 Mile NE
S61	NJDEP1000638267	1/2 - 1 Mile NNW
S62	NJDEP1000646218	1/2 - 1 Mile NNW
S63	NJDEP1000660947	1/2 - 1 Mile NNW

PHYSICAL SETTING SOURCE MAP - 5565949.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data

SITE NAME: 50 Division Avenue ADDRESS: 50 Division Avenue Millington NJ 07946 LAT/LONG: 40.672224 / 74.524422	CLIENT: EWMA, LLC CONTACT: Frank Rooney INQUIRY #: 5565949.2s DATE: February 19, 2019 7:52 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
A1 **SW** **0 - 1/8 Mile** **Lower**	**NJ WELLS**	**NJMONS100004799**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJ Department of Environmental Protection		
Monitoring Location:	21NJDEP1-FIBI024	Location Name:	Passaic River
Location Type:	River/Stream	HUC:	02030103

	Database	EDR ID Number
A2 **SW** **0 - 1/8 Mile** **Lower**	**NJ WELLS**	**NJMONS100016385**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJDEP Bureau of Freshwater and Biological Monitoring		
Monitoring Location:	NJDEP_BFBM-FIBI024	Location Name:	Passaic River
Location Type:	River/Stream	HUC:	02030103

	Database	EDR ID Number
3 **West** **1/8 - 1/4 Mile** **Higher**	**NJ WELLS**	**NJDEP1000666064**

Database:	Water Well Permit Information	Permit #:	2500030177
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19870823
Capacity:	Not Reported	Depth:	18

	Database	EDR ID Number
4 **NE** **1/8 - 1/4 Mile** **Higher**	**NJ WELLS**	**NJDEP1000416619**

Database:	Water Well Permit Information	Permit #:	2500003356
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19540324
Capacity:	Not Reported	Depth:	120

	Database	EDR ID Number
B5 **NNE** **1/8 - 1/4 Mile** **Higher**	**NJ WELLS**	**NJDEP1000457535**

Database:	Water Well Permit Information	Permit #:	2500063863
Well Use:	Industrial	May be Potable:	Yes
Request Type:	Permit	Date Completed:	20040702101149
Capacity:	Not Reported	Depth:	300

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B6
NNE
1/8 - 1/4 Mile
Higher

NJ WELLS **NJDEP1000422602**

Database:	Water Well Permit Information	Permit #:	2500063863
Well Use:	Industrial	May be Potable:	Yes
Request Type:	Decommissioning	Date Completed:	20100202
Capacity:	Not Reported	Depth:	Not Reported

C7
North
1/4 - 1/2 Mile
Higher

NJ WELLS **NJDEP1000425954**

Database:	Water Well Permit Information	Permit #:	E201614731
Well Use:	Domestic Replacement	May be Potable:	Yes
Request Type:	Record	Date Completed:	20170517
Capacity:	Not Reported	Depth:	350

C8
North
1/4 - 1/2 Mile
Higher

NJ WELLS **NJDEP1000425955**

Database:	Water Well Permit Information	Permit #:	E201614731
Well Use:	Domestic Replacement	May be Potable:	Yes
Request Type:	Permit	Date Completed:	20161209153048
Capacity:	Not Reported	Depth:	300

9
NE
1/4 - 1/2 Mile
Higher

NJ WELLS **NJDEP1000427840**

Database:	Water Well Permit Information	Permit #:	2500006964
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19590105
Capacity:	Not Reported	Depth:	558

10
North
1/4 - 1/2 Mile
Higher

NJ WELLS **NJDEP1000418223**

Database:	Water Well Permit Information	Permit #:	2500005407
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19560307
Capacity:	Not Reported	Depth:	100

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
D11 **South** **1/4 - 1/2 Mile** **Lower**	**NJ WELLS**	**NJDEP1000440008**

Database:	Water Well Permit Information	Permit #:	2500018696
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19760824
Capacity:	Not Reported	Depth:	125

	Database	EDR ID Number
D12 **South** **1/4 - 1/2 Mile** **Lower**	**NJ WELLS**	**NJDEP1000440009**

Database:	Water Well Permit Information	Permit #:	2500018695
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19760824
Capacity:	Not Reported	Depth:	125

	Database	EDR ID Number
13 **South** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000427426**

Database:	Water Well Permit Information	Permit #:	2500008752
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19590915
Capacity:	Not Reported	Depth:	145

	Database	EDR ID Number
E14 **North** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000433022**

Database:	Water Well Permit Information	Permit #:	2500026347
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19850620
Capacity:	Not Reported	Depth:	150

	Database	EDR ID Number
E15 **North** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000445148**

Database:	Water Well Permit Information	Permit #:	2500026347
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19850718
Capacity:	Not Reported	Depth:	200

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F16
SSW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100003916**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJ Department of Environmental Protection		
Monitoring Location:	21NJDEP1-AN0224	Location Name:	PASSAIC RIVER AT VALLEY ROAD
Location Type:	River/Stream	HUC:	02030103

F17
SSW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100015215**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJDEP Bureau of Freshwater and Biological Monitoring		
Monitoring Location:	NJDEP_BFBM-AN0224	Location Name:	PASSAIC RIVER AT VALLEY ROAD
Location Type:	River/Stream	HUC:	02030103

F18
SSW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100001539**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJ Department of Environmental Protection		
Monitoring Location:	21NJDEP1-01379010	Location Name:	PASSAIC RIVER VALLEY RD
Location Type:	River/Stream	HUC:	02030103

F19
SSW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100014184**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJDEP Bureau of Freshwater and Biological Monitoring		
Monitoring Location:	NJDEP_BFBM-01379010	Location Name:	PASSAIC RIVER VALLEY RD
Location Type:	River/Stream	HUC:	02030103

G20
WNW
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000649185**

Database:	Water Well Permit Information	Permit #:	2500024124
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19830808
Capacity:	Not Reported	Depth:	200

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

G21
WNW
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000665666**

Database:	Water Well Permit Information	Permit #:	2500024124
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19831004
Capacity:	Not Reported	Depth:	800

H22
NNW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100014183**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJDEP Bureau of Freshwater and Biological Monitoring		
Monitoring Location:	NJDEP_BFBM-01379000	Location Name:	PASSAIC RIVER NEAR MILLINGTON NJ
Location Type:	River/Stream	HUC:	02030103

H23
NNW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100001538**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJ Department of Environmental Protection		
Monitoring Location:	21NJDEP1-01379000	Location Name:	PASSAIC RIVER NEAR MILLINGTON NJ
Location Type:	River/Stream	HUC:	02030103

H24
NNW
1/2 - 1 Mile
Higher

NJ WELLS **NJMONS100002433**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJ Department of Environmental Protection		
Monitoring Location:	21NJDEP1-2588007518	Location Name:	PASSAIC RIVER NEAR MILLINGTON NJ
Location Type:	River/Stream	HUC:	02030103

25
East
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000416004**

Database:	Water Well Permit Information	Permit #:	2500004594
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19550523
Capacity:	Not Reported	Depth:	120

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

26
SE
1/2 - 1 Mile
Lower

NJ WELLS **NJDEP1000422040**

Database:	Water Well Permit Information	Permit #:	Not Reported
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Decommissioning	Date Completed:	20110524
Capacity:	Not Reported	Depth:	Not Reported

H27
NNW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100015924**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJDEP Bureau of Freshwater and Biological Monitoring		
Monitoring Location:	NJDEP_BFBM-BA137		
Location Name:	PASSAIC R ON RTE 657 (BASKING RIDGE RD) MILLINGTON		
Location Type:	River/Stream	HUC:	02030103

H28
NNW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100004548**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJ Department of Environmental Protection		
Monitoring Location:	21NJDEP1-BA137		
Location Name:	PASSAIC R ON RTE 657 (BASKING RIDGE RD) MILLINGTON		
Location Type:	River/Stream	HUC:	02030103

H29
NNW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100013863**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJDEP Bur of Environmental Analysis Restoration & Standards		
Monitoring Location:	NJDEP_BEARS-PA2	Location Name:	Passaic River Maple Avenue Bridge, Millington
Location Type:	River/Stream	HUC:	02030103

H30
NNW
1/2 - 1 Mile
Lower

NJ WELLS **NJMONS100013864**

Database:	STORET Water Quality Monitoring Stations		
Organization:	NJDEP Bur of Environmental Analysis Restoration & Standards		
Monitoring Location:	NJDEP_BEARS-PA2	Location Name:	Passaic River Maple Avenue Bridge, Millington
Location Type:	River/Stream	HUC:	02030103

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
I31 **SSE** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000428352**

Database:	Water Well Permit Information	Permit #:	2500010320
Well Use:	Public Non-Community	May be Potable:	Yes
Request Type:	Record	Date Completed:	19620131
Capacity:	Not Reported	Depth:	297

	Database	EDR ID Number
I32 **SSE** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000434426**

Database:	Water Well Permit Information	Permit #:	2500010320
Well Use:	Public Non-Community	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19611116
Capacity:	Not Reported	Depth:	200

	Database	EDR ID Number
33 **NE** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000431680**

Database:	Water Well Permit Information	Permit #:	2500021637
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19810302
Capacity:	Not Reported	Depth:	300

	Database	EDR ID Number
J34 **SE** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000432488**

Database:	Water Well Permit Information	Permit #:	2500025174
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19840701
Capacity:	Not Reported	Depth:	200

	Database	EDR ID Number
J35 **SE** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000444178**

Database:	Water Well Permit Information	Permit #:	2500025174
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19840630
Capacity:	Not Reported	Depth:	250

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

K36
SSE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000425633**

Database:	Water Well Permit Information	Permit #:	2500017452
Well Use:	Irrigation	May be Potable:	Yes
Request Type:	Decommissioning	Date Completed:	20010214
Capacity:	Not Reported	Depth:	300

K37
SSE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000419120**

Database:	Water Well Permit Information	Permit #:	2500007069
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19570911
Capacity:	Not Reported	Depth:	120

K38
SSE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000439513**

Database:	Water Well Permit Information	Permit #:	2500017452
Well Use:	Irrigation	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19740501
Capacity:	Not Reported	Depth:	300

K39
SSE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000430104**

Database:	Water Well Permit Information	Permit #:	2500017452
Well Use:	Irrigation	May be Potable:	Yes
Request Type:	Record	Date Completed:	19740430
Capacity:	Not Reported	Depth:	300

40
WNW
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000665299**

Database:	Water Well Permit Information	Permit #:	2500021773
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19810129
Capacity:	Not Reported	Depth:	460

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

L41
NNE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000416023**

Database:	Water Well Permit Information	Permit #:	2500004550
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19550511
Capacity:	Not Reported	Depth:	120

L42
NNE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000416024**

Database:	Water Well Permit Information	Permit #:	2500004549
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19550511
Capacity:	Not Reported	Depth:	120

43
NE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000416708**

Database:	Water Well Permit Information	Permit #:	2500003077
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19531116
Capacity:	Not Reported	Depth:	120

M44
SE
1/2 - 1 Mile
Lower

NJ WELLS **NJDEP1000418609**

Database:	Water Well Permit Information	Permit #:	2500008965
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19591029
Capacity:	Not Reported	Depth:	150

45
West
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000660279**

Database:	Water Well Permit Information	Permit #:	A1807038
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Decommissioning	Date Completed:	20180808
Capacity:	Not Reported	Depth:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
M46 **SE** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000424247**

Database:	Water Well Permit Information	Permit #:	E201503451
Well Use:	Domestic Replacement	May be Potable:	Yes
Request Type:	Record	Date Completed:	20150708
Capacity:	Not Reported	Depth:	250

M47 **SE** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000424248**

Database:	Water Well Permit Information	Permit #:	E201503451
Well Use:	Domestic Replacement	May be Potable:	Yes
Request Type:	Permit	Date Completed:	20150413144852
Capacity:	Not Reported	Depth:	300

---

48 **SE** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000424585**

Database:	Water Well Permit Information	Permit #:	A1410001
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Decommissioning	Date Completed:	20141020
Capacity:	Not Reported	Depth:	Not Reported

N49 **North** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000416598**

Database:	Water Well Permit Information	Permit #:	2500003391
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19540412
Capacity:	Not Reported	Depth:	120

N50 **North** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000436455**

Database:	Water Well Permit Information	Permit #:	2500015061
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19681209
Capacity:	Not Reported	Depth:	150

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
N51 **North** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000436621**

Database:	Water Well Permit Information	Permit #:	2500014421
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19670706
Capacity:	Not Reported	Depth:	200

O52 **SW** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000642426**

Database:	Water Well Permit Information	Permit #:	2500007969
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19580916
Capacity:	Not Reported	Depth:	0

O53 **SW** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000646895**

Database:	Water Well Permit Information	Permit #:	2500017029
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19730705
Capacity:	Not Reported	Depth:	200

P54 **SSW** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000652090**

Database:	Water Well Permit Information	Permit #:	2500045941
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19940927
Capacity:	Not Reported	Depth:	250

P55 **SSW** **1/2 - 1 Mile** **Lower**	**NJ WELLS**	**NJDEP1000652091**

Database:	Water Well Permit Information	Permit #:	2500045941
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19941011220713
Capacity:	Not Reported	Depth:	250

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Q56
East
1/2 - 1 Mile
Lower

NJ WELLS **NJDEP1000416706**

Database:	Water Well Permit Information	Permit #:	2500003082
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19531117
Capacity:	Not Reported	Depth:	100

Q57
East
1/2 - 1 Mile
Lower

NJ WELLS **NJDEP1000417248**

Database:	Water Well Permit Information	Permit #:	2500001849
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19520625
Capacity:	Not Reported	Depth:	100

Q58
East
1/2 - 1 Mile
Lower

NJ WELLS **NJDEP1000439426**

Database:	Water Well Permit Information	Permit #:	2500017361
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19740225
Capacity:	Not Reported	Depth:	150

R59
NE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000447539**

Database:	Water Well Permit Information	Permit #:	2500031242
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19880318
Capacity:	Not Reported	Depth:	150

R60
NE
1/2 - 1 Mile
Higher

NJ WELLS **NJDEP1000447540**

Database:	Water Well Permit Information	Permit #:	2500031242
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Record	Date Completed:	19880408130907
Capacity:	Not Reported	Depth:	105

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
S61 **NNW** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000638267**

Database:	Water Well Permit Information	Permit #:	2500000490
Well Use:	Public Non-Community	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19490628
Capacity:	Not Reported	Depth:	150

S62 **NNW** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000646218**

Database:	Water Well Permit Information	Permit #:	2500015555
Well Use:	Domestic	May be Potable:	Yes
Request Type:	Permit	Date Completed:	19700618
Capacity:	Not Reported	Depth:	100

S63 **NNW** **1/2 - 1 Mile** **Higher**	**NJ WELLS**	**NJDEP1000660947**

Database:	Water Well Permit Information	Permit #:	2500000490
Well Use:	Public Non-Community	May be Potable:	Yes
Request Type:	Record	Date Completed:	19490709
Capacity:	Not Reported	Depth:	80

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: NJ Radon

Radon Test Results

City	Num Tests	# > 4 pCi/L	% > pCi/L
BOONTON TOWN	1553	368	24.000
BOONTON TWP	504	101	20.000
BUTLER BORO	762	77	10.000
CHATHAM BORO	2781	356	13.000
CHATHAM TWP	1525	246	16.000
CHESTER BORO	1020	479	47.000
CHESTER TWP	747	362	48.000
DENVILLE TWP	1894	429	23.000
DOVER TOWN	1409	503	36.000
EAST HANOVER TWP	1182	77	7.000
FLORHAM PARK BORO	1492	102	7.000
HANOVER TWP	1401	166	12.000
HARDING TWP	880	388	44.000
JEFFERSON TWP	1793	559	31.000
KINNELON BORO	1714	415	24.000
LINCOLN PARK BORO	981	69	7.000
LONG HILL TWP	2128	594	28.000
MADISON BORO	2404	268	11.000
MENDHAM BORO	2080	751	36.000
MENDHAM TWP	1010	384	38.000
MINE HILL TWP	650	166	26.000
MONTVILLE TWP	1961	401	20.000
MORRIS PLAINS BORO	3333	1003	30.000
MORRIS TWP	3198	857	27.000
MORRISTOWN TOWN	2618	635	24.000
MOUNT ARLINGTON BORO	630	127	20.000
MOUNT OLIVE TWP	2583	903	35.000
MOUNTAIN LAKES BORO	1047	153	15.000
NETCONG BORO	259	37	14.000
PARSIPPANY-TROY HILL	6865	821	12.000
PEQUANNOCK TWP	1461	196	13.000
RANDOLPH TWP	4087	1449	35.000
RIVERDALE BORO	360	98	27.000
ROCKAWAY BORO	2673	587	22.000
ROCKAWAY TWP	1720	372	22.000
ROXBURY TWP	2497	621	25.000
VICTORY GARDENS BORO	40	13	33.000
WASHINGTON TWP	2576	1101	43.000
WHARTON BORO	882	268	30.000

Federal EPA Radon Zone for MORRIS County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal Area Radon Information for MORRIS COUNTY, NJ

Number of sites tested: 3580

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	1.300 pCi/L	88%	10%	1%
Basement	2.900 pCi/L	66%	30%	4%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Environmental Protection
Telephone: 609-984-2243

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

New Jersey Public-Community Water-Supply Wells
Source: Department of Environmental Protection, Geological Survey
Telephone: 609-984-6587

New Jersey Ambient Ground Water Quality Network Data
Source: Department of Environmental Quality
Telephone: 609-984-6587
Ambient Groundwater Quality of the New Jersey Part of the Newark Basin. Natural groundwater quality in the Newark Basin summarize natural groundwater quality in sedimentary bedrock formations of the Newark basin part of the Piedmont physiographic province of New Jersey.

STORET Water Quality Monitoring Stations
Source: Department of Environmental Protection
Telephone: 609-984-6831
STORET maintains the locations of water quality monitoring stations from NJDEP's NJ STORET (Modernized) database. A station is a location at which a data collection event takes place, such a collection of a field sample, measurement of field parameters or evaluation of environmental habitats.

Water Well Permit Information
Source: Department of Environmental Protection
Telephone: 609-984-6831
Permits to drill wells. Once constructed, the driller must submit a well record document with the as-built description of the well. Drillers also submit a well abandonment report whenever a well has been decommissioned.

OTHER STATE DATABASE INFORMATION

RADON

State Database: NJ Radon
Source: Department of Environmental Protection
Telephone: 609-984-5425
Radon Test Results

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 7

NJDEP's Data Miner/Geo-Web Information

NJ-GeoWeb new jersey nidep department of environmental protection

Details of " Underground Storage Tanks Facilities "

Attribute	Value
Preferred ID Number	024069
NJEMS Site ID	27413
Doc Status	Terminated
Inspection Date	
Program Interest Name	TIFA LIMITED
Street1	50 DIVISION AVE
Street2	DIVISION AVE
Municipality	Long Hill Twp
County	Morris
Expiration Date	11/16/2000 12:00:00 AM
Period	11/14/2000-11/16/2000
Activity Type	Updated UST Registration
ACO Exists	
NJSPC Easting (X)	485,427.45
NJSPC Northing (Y)	669,795.58
Int Doc Id	421954
Program Interest ID	60031

NJ-GeoWeb new jersey nidep department of environmental protection

Details of " NJEMS Sites "

Attribute	Value
NJEMS Site ID	27413
Site Name	TIFA INTERNATIONAL CORP
Address Line 1	50 DIVISION AVE
Address Line 2	
City	PASSAIC TWP
ZIP Code	07946
County	MORRIS
Municipality	LONG HILL TWP
NJSPC Easting (X)	485,427.45
NJSPC Northing (Y)	669,795.58

NJ-GeoWeb new jersey department of environmental protection

Details of " Known Contaminated Sites List "

Attribute	Value
NJEMS Site ID	27413
Preferred ID	024069
PI Name	TIFA LIMITED
Address	50 DIVISION AVE
Municipality	Long Hill Twp
County	Morris
ZIP Code	07946
COMU Code	1430
Lead Program	LSRP
Site Status	Active
Status Date	2017/09/14
Remedial Level	C1
LSRP Fee Category	LSRP 2-10 CAOC
CEA Status	
CEA Established	
Deed Notice Status	Ongoing
Deed Notice Filed	2008/09/08
Eng Control Status	Ongoing
Eng Control Implemented	2008/09/08
NPL Status	
NPL Listing	
Unknown Source	No
Site Category	A
X Coordinate	485,427.45
Y Coordinate	669,795.58
Run Date	2019/02/14

NJ-GeoWeb new jersey nidep department of environmental protection

Details of " Historic Fill "

Attribute	Value
Fill	f

NJ-GeoWeb new jersey department of environmental protection nidep

Details of " Deed Notice Areas "

Attribute	Value
Preferred ID	024069
Subject Item ID	124584
Activity Number	RAP180001
Case Tracking Number	0
Name	TIFA International Corp
DN Name	Asbestos Dump #OU1
Address	50 Division St
Block / Lot	12301-1
Municipality	Long Hill Twp
County	Morris
Program	RAP
Filed Date	9/8/2008 12:00:00 AM
DN Description	
Contaminant Depth (ft)	
Engineering Control	
Cap Thickness (ft)	
Benzo[a]anthracene	
Benzo[a]pyrene	
Benzo[b]fluoranthene	
Benzo[ghi]perylene	
Benzo[k]fluoranthene	
Ideno[1,2,3-cd]pyrene	
Dibenzo[a,h]anthracene	
Dioxin	
Chrysene	
Chromium (Hexavalent)	
Tentatively Identified Compounds (TICs)	
Volatile Organic (VO)	
Base/Neutral (BN)	
Metals	
Pesticides	

Carcinogen Polycyclic Aromatic Hydrocarbons (CaPAH)	
Polychlorinated Biphenyls (PCBs)	
Radionuclides	
Asbestos	Yes
Total Petroleum Hydrocarbons (TPH)	
Historic Fill	
Other Contaminants	
Acres	11.67406198
Perimeter	2,942.2141512

50 DIVISION AVE

Millington (Long Hill), NJ

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LEGEND

Applications/NJGW_Base_Layers
- Parcels Data (Block and Lot)
- Counties
- MidAtlantic States Boundary

Applications/NJGW_Sites_and_Facilities
- Known Contaminated Sites List
- NJEMS Sites

Underground Storage Tanks Facilities
- Inspection Conducted

DOC_STATUS
- Duplicate
- Effective
- Expired
- Pending
- Terminated
- Deed Notice Areas
- Groundwater Contamination Areas (CEA)

Historic Fill
- Historic Fill

FILL
- Quadrangles NotMapped
- No Fill

Powered by NJDEP's NJ-GeoWeb

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 8

USEPA's Envirofacts Information

- **You are here:** EPA Home
- Envirofacts
- RCRAInfo
- Search Results

Search Results

Home

Multisystem Search

Topic Searches

System Data Searches

About the Data

Data Downloads

Widgets

Services

Mobile

Other Datasets

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- Overview
- Search

- Model
- RCRAInfo Search User Guide
- Contact Us
- Office of Resource Conservation and Recovery Home

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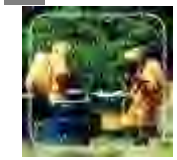

RCRAInfo Facility Information

TIFA INTERNATIONAL LLC
Handler ID: NJD980762199
50 DIVISION AVE - UNIT #28
MILLINGTON, NJ 07946

County Name: MORRIS

Latitude: 40.67233
Longitude: -74.52287

Hazardous Waste Generator:

Owner Name: TIFA REALTY INC
(FORMERLY TIFA LTD)

**You can navigate within the map with your mouse.*

No BIENNIAL REPORT data is available for the facility listed above.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE	ZIP CODE	PHONE	TYPE OF CONTACT
DEIRDRE A CERCIELLO	DIVISION AVE - UNIT #28	MILLINGTON	NJ	07946	908-647-4570	Public
MARK C ANNIS	50 DIVISION AVE	MILLINGTON	NJ	07946	908-647-7555	Permit
DEIRDRE CERCIELLO	DIVISION AVE - UNIT #28	MILLINGTON	NJ	07946	908-647-4570	Permit

HANDLER / FACILITY CLASSIFICATION

Unspecified Universe for the facility listed above.

No Handler information is available for the facility listed above.

No PROCESS INFORMATION is available for the facility listed above.

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
333111	FARM MACHINERY AND EQUIPMENT MANUFACTURING

LIST OF WASTE CODES AND DESCRIPTIONS

WASTE CODE	WASTE DESCRIPTION
D001	IGNITABLE WASTE

D002	CORROSIVE WASTE
D003	REACTIVE WASTE
D004	ARSENIC
D013	LINDANE (1,2,3,4,5,6-HEXA-CHLOROCYCLOHEXANE, GAMMA ISOMER)
D020	CHLORDANE
D039	TETRACHLOROETHYLENE
P006	ALUMINUM PHOSPHIDE (R,T)
P012	ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE
P020	DINOSEB (OR) PHENOL, 2-(1-METHYLPROPYL)-4,6-DINITRO-
U036	4,7-METHANO-1H-INDENE, 1,2,4,5,6,7,8,8-OCTACHLORO-2,3,3A,4,7,7A-HEXAHYDRO- (OR) CHLORDANE, ALPHA & GAMMA ISOMERS
U057	CYCLOHEXANONE (I)
U129	CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

Go To Top Of The Page

Total Number of Facilities Retrieved: 1

- **You are here:** EPA Home
- Envirofacts
- RCRAInfo
- Search Results

Search Results

Home

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Topic Searches

System Data Searches

About the Data

Data Downloads

Widgets

Services

Mobile

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- Overview
- Search

- Model
- RCRAInfo Search User Guide
- Contact Us
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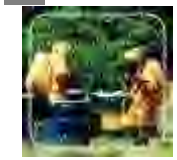

RCRAInfo Facility Information

SPHINX ELECTROPLATING CORP
Handler ID: NJS009000126
50 DIVISION AVE
LONG HILL TWP, NJ 07946

County Name: MORRIS

Latitude: 40.67233
Longitude: -74.52287

Hazardous Waste Generator:

Owner Name: NON-REGULATED

**You can navigate within the map with your mouse.*

No BIENNIAL REPORT data is available for the facility listed above.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE	ZIP CODE	PHONE	TYPE OF CONTACT
MOSTAFA SOLIMAN	DIVISION AVE	LONG HILL TWP	NJ	07946	908-647-0050	Public
MOSTAFA SOLIMAN	DIVISION AVE	LONG HILL TWP	NJ	07946	908-647-0050	Permit
MOSTAFA SOLIMAN	50 DIVISION AVE	LONG HILL TWP	NJ	07946	908-647-0050	Permit

HANDLER / FACILITY CLASSIFICATION

Unspecified Universe for the facility listed above.

No Handler information is available for the facility listed above.

No PROCESS INFORMATION is available for the facility listed above.

No NAICS Codes are available for the facility listed above.

No Waste Codes are available for the facility listed above.

Go To Top Of The Page

Total Number of Facilities Retrieved: 1

- **You are here:** EPA Home
- Envirofacts
- RCRAInfo
- Search Results

Search Results

Home

Multisystem Search

Topic Searches

System Data Searches

About the Data

Data Downloads

Widgets

Services

Mobile

Other Datasets

RCRAInfo Links

- Overview
- Search

- Model
- RCRAInfo Search User Guide
- Contact Us
- Office of Resource Conservation and Recovery Home

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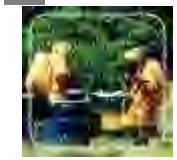


RCRAInfo Facility Information

GELLNER & CO INC
Handler ID: NJN986627792
50 DIVISION AVE
LONG HILL TWP, NJ 07946

County Name: MORRIS

Latitude: 40.67233
Longitude: -74.52287

Hazardous Waste Generator:

Owner Name: GELLNER & CO INC

**You can navigate within the map with your mouse.*

No BIENNIAL REPORT data is available for the facility listed above.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE	ZIP CODE	PHONE	TYPE OF CONTACT
OTTO GELLNER	50 DIVISION AVE	LONG HILL TWP	NJ	07946	908-647-5208	Public
OTTO GELLNER	50 DIVISION AVE	LONG HILL TWP	NJ	07946	908-647-5208	Permit

HANDLER / FACILITY CLASSIFICATION

Unspecified Universe for the facility listed above.

No Handler information is available for the facility listed above.

No PROCESS INFORMATION is available for the facility listed above.

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
221119	OTHER ELECTRIC POWER GENERATION

LIST OF WASTE CODES AND DESCRIPTIONS

WASTE CODE	WASTE DESCRIPTION
D001	IGNITABLE WASTE

Go To Top Of The Page

Total Number of Facilities Retrieved: 1

- **You are here:** EPA Home
- Envirofacts
- Multisystem
- Search Results

Search Results

Home

Multisystem Search

Topic Searches

System Data Searches

About the Data

Data Downloads

Widgets

Services

Mobile

Other Datasets

Multisystem Links

- EF Overview
- Search

- Model
- Contact Us

TIFA INTERNATIONAL CORP
50 DIVISION AVENUE
MILLINGTON, NJ 07946-1358

**You can navigate within the map with your mouse.*

EPA Facility Information

This query was executed on FEB-19-2019

RCRAInfo

HANDLER ID:	NJD980762199

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
333111	FARM MACHINERY AND EQUIPMENT MANUFACTURING

HANDLER / FACILITY CLASSIFICATION

Unspecified Universe for the facility listed above.

No Handler information is available for the facility listed above.

No PROCESS INFORMATION is available for the facility listed above.

Additional Information can be obtained from Resource Conservation and Recovery Information **RCRAInfo** Search.

- **You are here:** EPA Home
- Envirofacts
- Multisystem
- Search Results

Search Results

Home

Multisystem Search

Topic Searches

System Data Searches

About the Data

Data Downloads

Widgets

Services

Mobile

Other Datasets

Multisystem Links

- EF Overview
- Search

- Model
- Contact Us

SPHINX ELECTRO-PLATING CORP.
50 DIVISION AVE
MILLINGTON, NJ 07946

**You can navigate within the map with your mouse.*

EPA Facility Information

This query was executed on FEB-19-2019

RCRAInfo

HANDLER ID:	NJS009000126

No NAICS Codes are available for the facility listed above.

HANDLER / FACILITY CLASSIFICATION

Unspecified Universe for the facility listed above.

No Handler information is available for the facility listed above.

No PROCESS INFORMATION is available for the facility listed above.

Additional Information can be obtained from Resource Conservation and Recovery Information **RCRAInfo** Search.

- **You are here:** EPA Home
- Envirofacts
- Multisystem
- Search Results

Search Results

Home

Multisystem Search

Topic Searches

System Data Searches

About the Data

Data Downloads

Widgets

Services

Mobile

Other Datasets

Multisystem Links

- EF Overview
- Search

- Model
- Contact Us

GELLNER & CO INC
50 DIVISION AVE
MILLINGTON, NJ 07946

**You can navigate within the map with your mouse.*

EPA Facility Information

This query was executed on FEB-19-2019

RCRAInfo

HANDLER ID:	NJN986627792

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
221119	OTHER ELECTRIC POWER GENERATION

HANDLER / FACILITY CLASSIFICATION

Unspecified Universe for the facility listed above.

No Handler information is available for the facility listed above.

No PROCESS INFORMATION is available for the facility listed above.

Additional Information can be obtained from Resource Conservation and Recovery Information **RCRAInfo** Search.

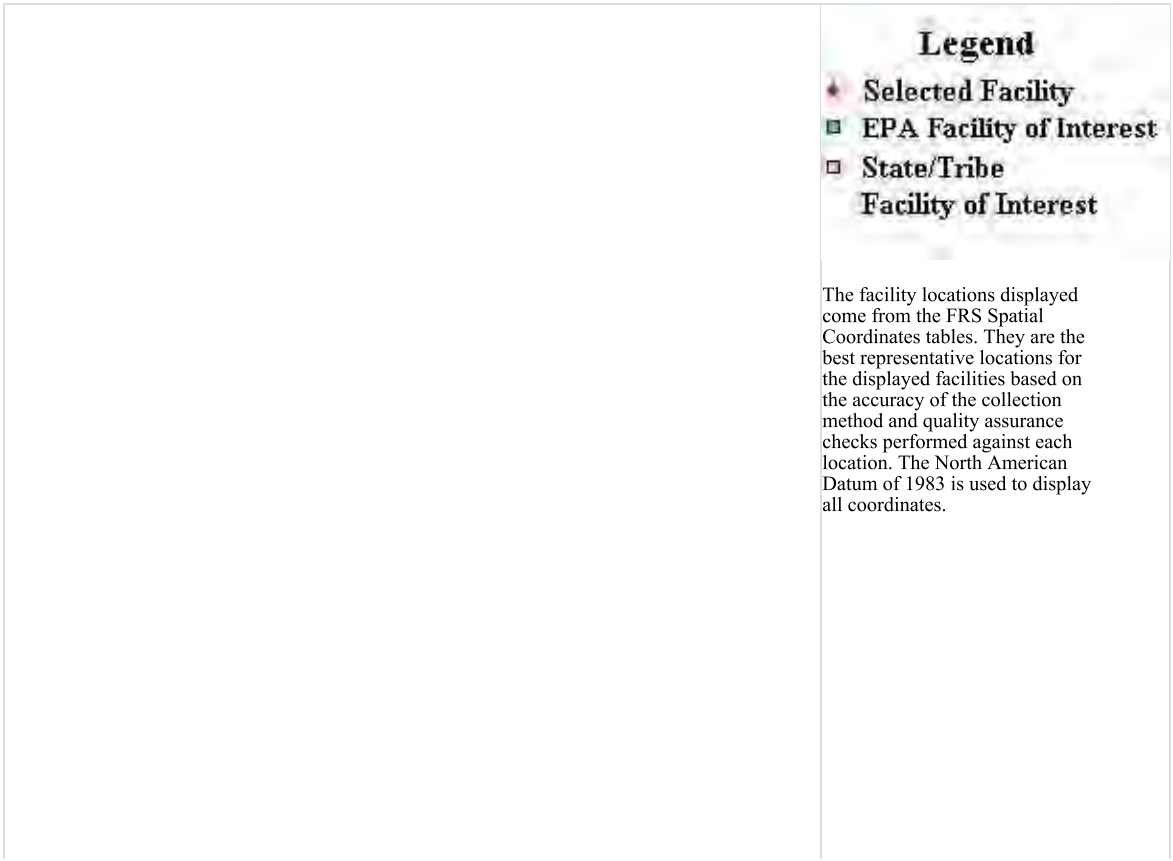
Related Topics: Envirofacts

FRS

FRS Facility Detail Report

TIFA INTERNATIONAL CORP

EPA Registry Id: 110004179059
50 DIVISION AVENUE
MILLINGTON, NJ 07946-1358



The facility locations displayed come from the FRS Spatial Coordinates tables. They are the best representative locations for the displayed facilities based on the accuracy of the collection method and quality assurance checks performed against each location. The North American Datum of 1983 is used to display all coordinates.

Facilty Registry Service Links:

- Facility Registry Service (FRS) Overview
- FRS Facility Query
- FRS Organization Query
- EZ Query
- FRS Physical Data Model
- FRS Geospatial Model

Environmental Interests

Information System	System Facility Name	Information System Id/Report Link	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#199308065221 2	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD	M02#199103182869 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD	M02#199107022869 2	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#199009185048 2	COMPLIANCE ACTIVITY	NCDB		
SECTION SEVEN TRACKING SYSTEM	TIFA INTL LLC	082397NJ001	PESTICIDE PRODUCER	SSTS		
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM	TIFA INTERNATIONAL LLC	NJD980762199	UNSPECIFIED UNIVERSE (N)	RCRAINFO	10/21/2008	
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD	M02#1996051011045 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#199103271023 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LIMITED	C02#990035	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (C.I.) LTD.	C02#960053	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD	M02#199106072869 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LIMITED	M02#1999020414975 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#198910265048 2	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD.	C02#910115	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA, LTD	C02#900015	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD	M02#199202272869 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD.	C02#960012	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#198910135048 1	COMPLIANCE ACTIVITY	NCDB		

NATIONAL COMPLIANCE DATABASE	TIFA (CI) LIMITED	M02#1999082614975 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#199109182869 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA, LTD	I02#1996100111072 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CCI), LTD	M02#199312295221 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#199308065221 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD.	C02#910046	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD	M02#199301055221 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#199107022869 3	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LIMITED	M02#1999032514975 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LIMITED	C02#990019	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#198912061683 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA, LTD	I02#1996041411072 1	COMPLIANCE ACTIVITY	NCDB		
NEW JERSEY - NEW JERSEY ENVIRONMENTAL MANAGEMENT SYSTEM	TIFA INTERNATIONAL CORP	27413	STATE MASTER	NJ-NJEMS		**NJEMS**-297268 NPDES PERMIT **NJEMS**-NJD980762199 HAZARDOUS WASTE PROGRAM **NJEMS**-024069 STATE CLEANUP SITE **NJEMS**-58493900000 EPCRA **NJEMS**-U000633 PESTICIDES - DISTRIBUTION **NJEMS**-601763 REFUSE DISPOSAL **NJEMS**-NR2863509173 HAZARDOUS WASTE PROGRAM -
NATIONAL COMPLIANCE DATABASE	TIFA (CI) INC.	C02#910030	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA, LTD	C02#900016	COMPLIANCE ACTIVITY	NCDB		
INTEGRATED COMPLIANCE INFORMATION SYSTEM	TIFA LTD	22168	FORMAL ENFORCEMENT ACTION	ICIS	06/13/2000	**ICIS**-02-1997-0364 FORMAL ENFORCEMENT ACTION
INTEGRATED COMPLIANCE INFORMATION SYSTEM	TIFA (CI) LIMITED	7263139	FORMAL ENFORCEMENT ACTION	ICIS	04/07/2006	**ICIS**-02-2006-5119 FORMAL ENFORCEMENT ACTION
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#1995071911045 2	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) ITD.	C02#960013	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI), LTD	M02#2003060510197 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD	M02#1999120814975 1	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA, LTD.	D02#547	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA (CI) LTD	C02#910072	COMPLIANCE ACTIVITY	NCDB		
NATIONAL COMPLIANCE DATABASE	TIFA, LTD	C02#900009	COMPLIANCE ACTIVITY	NCDB		
INTEGRATED COMPLIANCE INFORMATION SYSTEM	TIFA (CI) LIMITED	7263139	ENFORCEMENT/COMPLIANCE ACTIVITY	ICIS	01/19/2005	**ICIS**-02-2006-5119 FORMAL ENFORCEMENT ACTION

Additional EPA Reports: MyEnvironment Enforcement and Compliance Site Demographics Facility Coordinates Viewer Environmental Justice Map Viewer Watershed Report

Standard Industrial Classification Codes (SIC)

Data Source	SIC Code	Description	Primary
NJ-NJEMS	0782	LAWN AND GARDEN SERVICES	
NJ-NJEMS	3523	FARM MACHINERY AND EQUIPMENT	
NJ-NJEMS	2821	PLASTICS MATERIALS, SYNTHETIC RESINS, AND NONVULCANIZABLE ELASTOMERS	
NJ-NJEMS	3471	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING	
NJ-NJEMS	5983	FUEL OIL DEALERS	

National Industry Classification System Codes (NAICS)

Data Source	NAICS Code	Description	Primary
RCRAINFO	333111	FARM MACHINERY AND EQUIPMENT MANUFACTURING.	
NJ-NJEMS	221119	OTHER ELECTRIC POWER GENERATION.	
NJ-NJEMS	332313	PLATE WORK MANUFACTURING.	

Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
FACILITY MAILING ADDRESS	50 DIVISION AVE - UNIT #28	MILLINGTON	NJ	07946	RCRAINFO

ICIS	5169	CHEMICALS AND ALLIED PRODUCTS, NOT ELSEWHERE CLASSIFIED	
NJ-NJEMS	8734	TESTING LABORATORIES	
NJ-NJEMS	7692	WELDING REPAIR	

Facility Codes and Flags

EPA Region:	02
Duns Number:	
Congressional District Number:	07
Legislative District Number:	NO
HUC Code/Watershed:	02030103 / HACKENSACK-PASSAIC
US Mexico Border Indicator:	
Federal Facility:	NO
Tribal Land:	NO

Alternative Names

Alternative Name	Source of Data
TIFA (C.I.) LTD.	NCDB
TIFA INTL LLC	SSTS
ANNIS FUEL OIL SERVICES INCorporated	NOTIFICATION (RCRA)
TIFA (CI) LTD.	NCDB
TIFA LTD	DOCKET
TIFA (CI) ITD.	NCDB
TIFA (CCI), LTD	NCDB

Organizations

Affiliation Type	Name	DUNS Number	Information System	Mailing Address
RESPONSIBLE ENTITY	SPHINX ELECTRO PLATING CORP		NJ-NJEMS	
RESPONSIBLE ENTITY	TIFA REALTY INC		NJ-NJEMS	
RESPONSIBLE ENTITY	SPHINX ELECTRO PLATING CORP		NJ-NJEMS	
RESPONSIBLE ENTITY	GELLNER & CO INC		NJ-NJEMS	
OWNER	TIFA REALTY INC (FORMERLY TIFA LTD)		RCRAINFO	
RESPONSIBLE ENTITY	IMPERIAL METALS INC		NJ-NJEMS	
OWNER	TIFA INTERNATIONAL LLC		NJ-NJEMS	
OPERATOR	TIFA INTERNATIONAL LLC		RCRAINFO	
OWNER	TIFA INTL LLC	360918770	SSTS	
RESPONSIBLE PARTY	TIFA REALTY INC		NJ-NJEMS	
RESPONSIBLE ENTITY	LAWN DOCTOR OF BERNARDSVILLE		NJ-NJEMS	
RESPONSIBLE PARTY	TIFA INTERNATIONAL LLC		NJ-NJEMS	
PROPERTY OWNER	TIFA INTERNATIONAL LLC		NJ-NJEMS	
RESPONSIBLE PARTY	IMPERIAL METALS INC		NJ-NJEMS	
RESPONSIBLE ENTITY	PRISM MILLINGTON LLC		NJ-NJEMS	
RESPONSIBLE ENTITY	TIFA INTERNATIONAL LLC		NJ-NJEMS	

FACILITY MAILING ADDRESS	50 DIVISION AVE	MILLINGTON	NJ	7946	SSTS

Contacts

Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
COGNIZANT OFFICIAL	JOHN KARMAZYN	9086476200	NJ-NJEMS	
EMERGENCY RESPONDER	H. SOLIMAN	9086376407	NJ-NJEMS	
GENERAL CONTACT	PETER L WINTER	9086470144	NJ-NJEMS	
COGNIZANT OFFICIAL	PETER L WINTER	9086470144	NJ-NJEMS	
COGNIZANT OFFICIAL	OTTO GELLNER	9086475208	NJ-NJEMS	
REGULATORY CONTACT	DEIRDRE A CERCIELLO	9086474570	RCRAINFO	
EMERGENCY RESPONDER	DAVID REICH	9083344468	NJ-NJEMS	
EMERGENCY RESPONDER	GAMAL OSMAN	9085370827	NJ-NJEMS	
COGNIZANT OFFICIAL	DAVID REICH	9087819071	NJ-NJEMS	
FACILITY CONTACT	JASON PAUL	9086470050	NJ-NJEMS	
PROPERTY OWNER CONTACT	COMPANY OFFICER	2016470050	NJ-NJEMS	
EMERGENCY RESPONDER	PETER WINTER	9086471339	NJ-NJEMS	
GENERAL CONTACT	OTTO GELLNER	9086475208	NJ-NJEMS	
GENERAL CONTACT	M. SOLIMAN	9086470050	NJ-NJEMS	
COGNIZANT OFFICIAL	M. SOLIMAN	9086470050	NJ-NJEMS	
COGNIZANT OFFICIAL	JOSEPH ARGO	9085420244	NJ-NJEMS	
OWNER	DEIDRE A. CERCIELLO	90864745700010	SSTS	
RESPONSIBLE PARTY	DEIRDRE CERCIELLO	908647457010	NJ-NJEMS	
COGNIZANT OFFICIAL	GAMAL OSMAN	9086474570	NJ-NJEMS	
GENERAL CONTACT	CAROL J. BLOCHLINGER	9086474570	NJ-NJEMS	
FEES/BILLING CONTACT	ACCOUNTS PAYABLE	9999999999	NJ-NJEMS	
EMERGENCY RESPONDER	JOE ARGO	9087539220	NJ-NJEMS	
FEES/BILLING CONTACT	DEIRDRE A CERCIELLO	9086474570	NJ-NJEMS	
COGNIZANT OFFICIAL	JOHN KARMAZYN	9086478181	NJ-NJEMS	
COMPANY OFFICIAL	SPRINT EHS HELPLINE	8773474457OPT4	SSTS	
PERMITTEE	PLANT OFFICER	2016470050	NJ-NJEMS	
FEES/BILLING CONTACT	OTTO GELLNER	9086475208	NJ-NJEMS	
EMERGENCY RESPONDER	JOHN KARMAZYN	9086478181	NJ-NJEMS	
OWNER	SPRINT EHS HELPLINE	8773474457OPT4	SSTS	

COMPANY OFFICIAL	DEIDRE A. CERCIELLO	90864745700010	SSTS	
EMERGENCY RESPONDER	BOB BLOCHLINGER	9086256286	NJ-NJEMS	
EMERGENCY CONTACT	GAMAL OSMAN	9085370827	NJ-NJEMS	
EMERGENCY RESPONDER	OTTO GELLNER	9086474560	NJ-NJEMS	

Query executed on: FEB-19-2019

Last updated on September 24, 2015

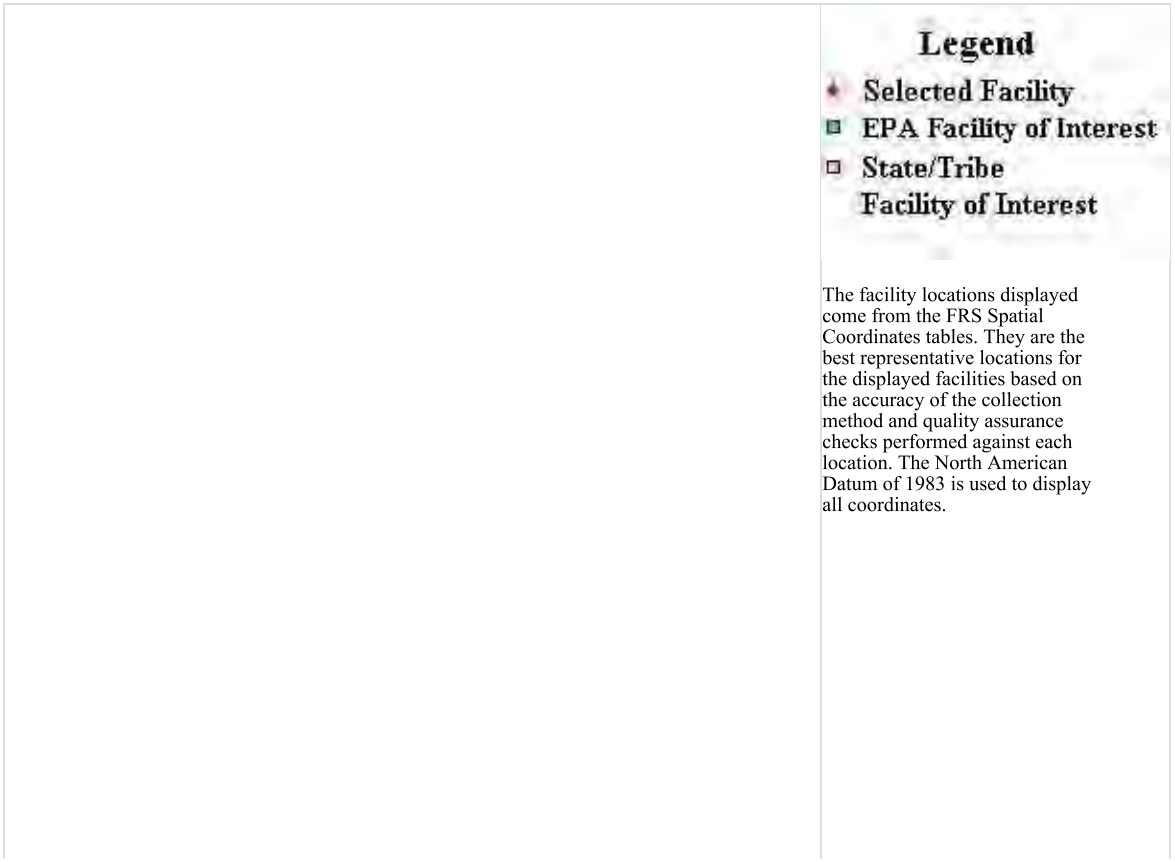
Related Topics: Envirofacts

FRS

FRS Facility Detail Report

SPHINX ELECTRO-PLATING CORP.

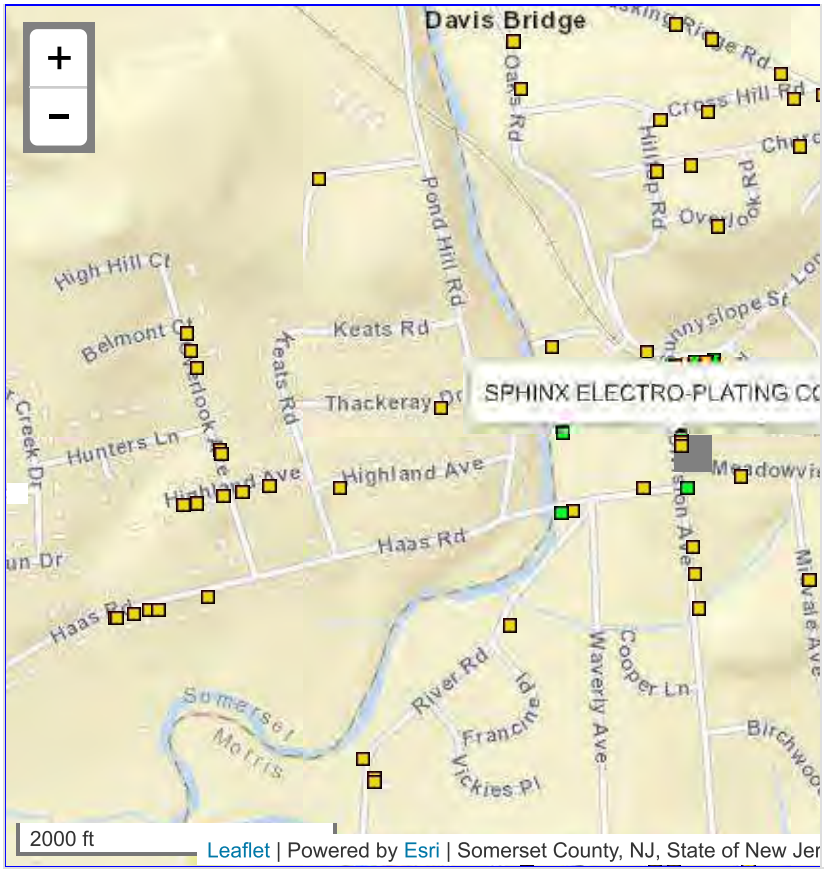
EPA Registry Id: 110007973318
50 DIVISION AVE
MILLINGTON, NJ 07946



The facility locations displayed come from the FRS Spatial Coordinates tables. They are the best representative locations for the displayed facilities based on the accuracy of the collection method and quality assurance checks performed against each location. The North American Datum of 1983 is used to display all coordinates.

Facilty Registry Service Links:

- Facility Registry Service (FRS) Overview
- FRS Facility Query
- FRS Organization Query
- EZ Query
- FRS Physical Data Model
- FRS Geospatial Model



Environmental Interests

Information System	System Facility Name	Information System Id/Report Link	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM	SPHINX ELECTROPLATING CORP	NJS009000126	UNSPECIFIED UNIVERSE (N)	RCRAINFO	06/26/2008	

Additional EPA Reports:	MyEnvironment Enforcement and Compliance Site Demographics Facility Coordinates Viewer Environmental Justice Map Viewer Watershed Report

Standard Industrial Classification Codes (SIC)

No SIC Codes returned.

Facility Codes and Flags

EPA Region:	02
Duns Number:	
Congressional District Number:	07
Legislative District Number:	NO
HUC Code/Watershed:	02030103 / HACKENSACK-PASSAIC
US Mexico Border Indicator:	
Federal Facility:	NO
Tribal Land:	NO

Alternative Names

Alternative Name	Source of Data
SPHINX ELECTROPLATING CORP	NOTIFICATION (RCRA)

Organizations

Affiliation Type	Name	DUNS Number	Information System	Mailing Address
OPERATOR	NON-REGULATED		RCRAINFO	
OWNER	NON-REGULATED		RCRAINFO	

National Industry Classification System Codes (NAICS)

No NAICS Codes returned.

Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
FACILITY MAILING ADDRESS	50 DIVISION AVE	LONG HILL TWP	NJ	07946	RCRAINFO

Contacts

Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
REGULATORY CONTACT	MOSTAFA SOLIMAN	9086470050	RCRAINFO	

Query executed on: FEB-19-2019

Last updated on September 24, 2015

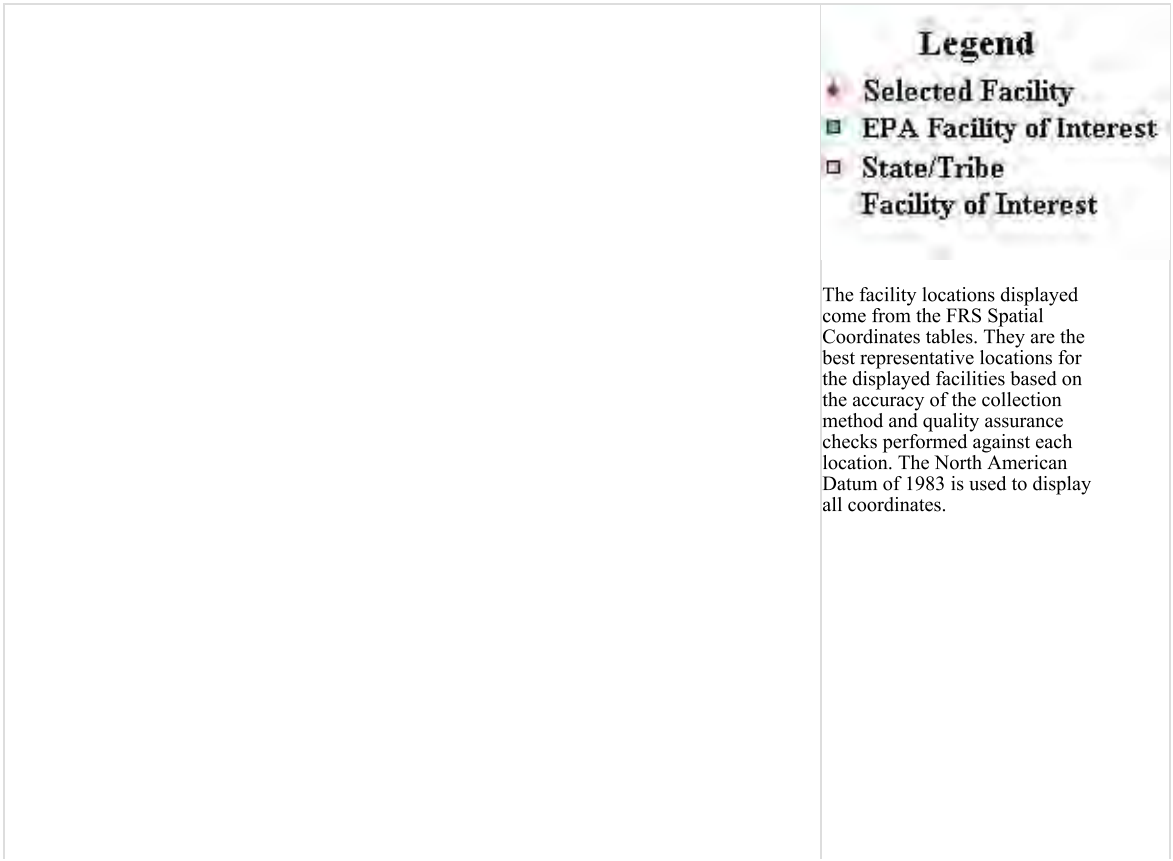
Related Topics: Envirofacts

FRS

FRS Facility Detail Report

GELLNER & CO INC

EPA Registry Id: 110014681781
50 DIVISION AVE
MILLINGTON, NJ 07946



The facility locations displayed come from the FRS Spatial Coordinates tables. They are the best representative locations for the displayed facilities based on the accuracy of the collection method and quality assurance checks performed against each location. The North American Datum of 1983 is used to display all coordinates.

Facilty Registry Service Links:

- Facility Registry Service (FRS) Overview
- FRS Facility Query
- FRS Organization Query
- EZ Query
- FRS Physical Data Model
- FRS Geospatial Model

Environmental Interests

Information System	System Facility Name	Information System Id/Report Link	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM	GELLNER & CO INC	NJN986627792	UNSPECIFIED UNIVERSE (N)	RCRAINFO	05/03/2012	
NEW JERSEY - NEW JERSEY ENVIRONMENTAL MANAGEMENT SYSTEM	GELLNER & CO INC	26793	STATE MASTER	NJ-NJEMS		**NJEMS**-NJN986627792 HAZARDOUS WASTE PROGRAM **NJEMS**-NJX000264721 HAZARDOUS WASTE PROGRAM **NJEMS**-64237300000 EPCRA

Additional EPA Reports:	MyEnvironment Enforcement and Compliance Site Demographics Facility Coordinates Viewer Environmental Justice Map Viewer Watershed Report

Standard Industrial Classification Codes (SIC)

Data Source	SIC Code	Description	Primary
NJ-NJEMS	2821	PLASTICS MATERIALS, SYNTHETIC RESINS, AND NONVULCANIZABLE ELASTOMERS	

Facility Codes and Flags

EPA Region:	02
Duns Number:	
Congressional District Number:	07
Legislative District Number:	
HUC Code/Watershed:	02030103 / HACKENSACK-PASSAIC
US Mexico Border Indicator:	
Federal Facility:	NO
Tribal Land:	NO

Alternative Names

No Alternative Names returned.

Organizations

Affiliation Type	Name	DUNS Number	Information System	Mailing Address
OWNER	GELLNER & CO INC		RCRAINFO	
OPERATOR	GELLNER & CO INC		RCRAINFO	
RESPONSIBLE PARTY	GELLNER & CO INC		NJ-NJEMS	

National Industry Classification System Codes (NAICS)

Data Source	NAICS Code	Description	Primary
RCRAINFO	221119	OTHER ELECTRIC POWER GENERATION.	
NJ-NJEMS	221119	OTHER ELECTRIC POWER GENERATION.	

Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
FACILITY MAILING ADDRESS	PO BOX 127	MORRIS TWP	NJ	07933	RCRAINFO

Contacts

Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
REGULATORY CONTACT	OTTO GELLNER	9086475208	RCRAINFO	
REGULATORY CONTACT	OTTO GELLNER	9086475208	RCRAINFO	
GENERAL CONTACT	OTTO GELLNER	9086475208	NJ-NJEMS	
FEES/BILLING CONTACT	OTTO GELLNER	9086475208	NJ-NJEMS	
COGNIZANT OFFICIAL	OTTO GELLNER	9086475208	NJ-NJEMS	
EMERGENCY CONTACT	OTTO GELLNER	9086474560	NJ-NJEMS	

Query executed on: FEB-19-2019

Last updated on September 24, 2015

07946 50 Division Ave Millington Morris NJ

FACILITY INFORMATION	ICIS-Air	ACRES	BR	SEMS	GHG	ICIS-NPDES	RAD Info	RCRA Info	TRI	TSCA
GELLNER & CO INC 50 DIVISION AVE MILLINGTON, NJ 07946 Latitude: 40.67233 Longitude: -74.52287								View Report		
SPHINX ELECTRO-PLATING CORP. 50 DIVISION AVE MILLINGTON, NJ 07946 Latitude: 40.67233 Longitude: -74.52287								View Report		
TIFA INTERNATIONAL CORP 50 DIVISION AVENUE MILLINGTON, NJ 07946-1358 Latitude: 40.67233 Longitude: -74.52287								View Report		

Detailed Facility Report

Facility Summary

TIFA INTERNATIONAL CORP
50 DIVISION AVENUE, MILLINGTON, NJ 07946

FRS (Facility Registry Service) ID: 110004179059
EPA Region: 02
Latitude: 40.67233
Longitude: -74.52287
Locational Data Source: FRS
Industry: Machinery Manufacturing
Indian Country: N

Enforcement and Compliance Summary

Statute	Insp (5 Years)	Date of Last Inspection	Compliance Status	Qtrs with NC (Noncompliance) (of 12)	Qtrs with Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
RCRA	--	05/21/2008	**No Violation Identified**	0	0	--	--	--	--	--

Regulatory Information

Clean Air Act (CAA): No Information
Clean Water Act (CWA): No Information
Resource Conservation and Recovery Act

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information

(RCRA): Inactive ( ) Other (NJD980762199)
Safe Drinking Water Act (SDWA): No Information

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110004179059					N	40.67233	-74.52287
RCR	RCRA	NJD980762199	Other	Inactive ( )			N	40.67324	-74.523734

Facility Address

System	Statute	Identifier	Facility Name	Facility Address
FRS		110004179059	TIFA INTERNATIONAL CORP	50 DIVISION AVENUE, MILLINGTON, NJ 07946
RCR	RCRA	NJD980762199	TIFA INTERNATIONAL LLC	50 DIVISION AVE - UNIT #28, MILLINGTON, NJ 07946

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Desc
No data records returned			

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
RCR	NJD980762199	333111	Farm Machinery and Equipment Manufacturing

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			

Enforcement and Compliance

Compliance Monitoring History (5 years)

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
No data records returned						

Entries in italics are not considered inspections in official counts.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
RCRA	NJD980762199	No	02/18/2019	0	02/15/2019

Download Data

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: NJD980762199)		04/01-06/30/16	07/01-09/30/16	10/01-12/31/16	01/01-03/31/17	04/01-06/30/17	07/01-09/30/17	10/01-12/31/17	01/01-03/31/18	04/01-06/30/18	07/01-09/30/18	10/01-12/31/18	01/01-03/31/19
	Facility-Level Status	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**

Informal Enforcement Actions (5 Years)

Statute	System	Source ID	Type of Action	Lead Agency	Date
No data records returned					

Formal Enforcement Actions (5 Years)

Statute	System	Law/Section	Source ID	Action Type	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
No data records returned														

Environmental Conditions

Water Quality

Permit	Combined Sewer	Number of CSO (Combined Sewer	12-Digit WBD (Watershed Boundary Dataset) HUC (BAD	WBD (Watershed Boundary Dataset) Subwatershed Name (BAD	State Waterbody Name (ICIS (Integrated Compliance	Impaired	Impaired	Causes of Impairment(s)	Watershed with ESA (Endangered Species Act) listed

Permit ID	Combined Sewer System?	Number of CSO (Combined Sewer Overflow) Outfalls	12-Digit [redacted] (Watershed Boundary Dataset) HUC (WBD)	[redacted] (Watershed Boundary Dataset) Subwatershed Name (WBD)	State Waterbody Name (ICIS-Integrated Compliance Information System)	Impaired Waters	Impaired Class	Causes of Impairment(s) by Group(s)	Watershed with [redacted] Endangered Species Act-listed Aquatic Species?
No data records returned									

Waterbody Designated Uses

Reach Code	Waterbody Name	Exceptional Use	Recreational Use	Aquatic Life Use	Shellfish Use	Beach Closure Within Last Year	Beach Closure Within Last Two Years
No data records returned							

Air Quality

Nonattainment Area?	Pollutant(s)	Applicable Nonattainment Standard(s)
Yes	Ozone	8-Hour Ozone (1997), 8-Hour Ozone (2008), 8-Hour Ozone (2015)
No	Lead	
Yes	Particulate Matter	PM-2.5 (1997), PM-2.5 (2006)
No	Carbon Monoxide	
No	Nitrogen Dioxide	
No	Sulfur Dioxide	

Pollutants

Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Releases
No data records returned								

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
No data records returned

Demographic Profile

Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

Radius of Area:	3	Land Area:	98%	Households in Area:	9,732
Center Latitude:	40.67221	Water Area:	2%	Housing Units in Area:	10,076
Center Longitude:	-74.52439	Population Density:	933/sq.mi.	Households on Public Assistance:	112
Total Persons:	25,804	Percent Minority:	17%	Persons Below Poverty Level:	2,048

Race Breakdown	Persons (%)	Age Breakdown	Persons (%)
White:	22,581 (88%)	Child 5 years and younger:	1,276 (5%)
African-American:	494 (2%)	Minors 17 years and younger:	6,734 (26%)
Hispanic-Origin:	1,322 (5%)	Adults 18 years and older:	19,071 (74%)
Asian/Pacific Islander:	2,093 (8%)	Seniors 65 years and older:	3,877 (15%)
American Indian:	17 (0%)		
Other/Multiracial:	619 (2%)		

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown	Households (%)
Less than 9th Grade:	428 (2.47%)	Less than $15,000:	385 (4.11%)
9th through 12th Grade:	377 (2.18%)	$15,000 - $25,000:	411 (4.39%)
High School Diploma:	3,007 (17.35%)	$25,000 - $50,000:	912 (9.74%)
Some College/2-yr:	2,881 (16.62%)	$50,000 - $75,000:	1,289 (13.77%)
B.S./B.A. or More:	10,638 (61.38%)	Greater than $75,000:	6,366 (67.99%)

Detailed Facility Report

Facility Summary

SPHINX ELECTRO-PLATING CORP.
50 DIVISION AVE, MILLINGTON, NJ 07946

FRS (Facility Registry Service) ID: 110007973318
EPA Region: 02
Latitude: 40.67233
Longitude: -74.52287
Locational Data Source: FRS
Industry: No description found
Indian Country: N

Enforcement and Compliance Summary

Statute	Insp (5 Years)	Date of Last Inspection	Compliance Status	Qtrs with NC (Noncompliance) (of 12)	Qtrs with Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
RCRA	--	11/17/1995	**No Violation Identified**	0	0	--	--	--	--	--

Regulatory Information

Clean Air Act (CAA): No Information
Clean Water Act (CWA): No Information
Resource Conservation and Recovery Act

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information

(RCRA): Inactive ( ) Other (NJS009000126)
Safe Drinking Water Act (SDWA): No Information

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110007973318					N	40.67233	-74.52287
RCR	RCRA	NJS009000126	Other	Inactive ( )			N	40.67324	-74.523734

Facility Address

System	Statute	Identifier	Facility Name	Facility Address
FRS		110007973318	SPHINX ELECTRO-PLATING CORP.	50 DIVISION AVE, MILLINGTON, NJ 07946
RCR	RCRA	NJS009000126	SPHINX ELECTROPLATING CORP	50 DIVISION AVE, LONG HILL TWP, NJ 07946

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Desc
No data records returned			

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
No data records returned			

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			

Enforcement and Compliance

Compliance Monitoring History (5 years)

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
No data records returned						

Entries in italics are not considered inspections in official counts.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
RCRA	NJS009000126	No	02/18/2019	0	02/15/2019

Download Data

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: NJS009000126)		04/01-06/30/16	07/01-09/30/16	10/01-12/31/16	01/01-03/31/17	04/01-06/30/17	07/01-09/30/17	10/01-12/31/17	01/01-03/31/18	04/01-06/30/18	07/01-09/30/18	10/01-12/31/18	01/01-03/31/19
	Facility-Level Status	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**

Informal Enforcement Actions (5 Years)

Statute	System	Source ID	Type of Action	Lead Agency	Date
No data records returned					

Formal Enforcement Actions (5 Years)

Statute	System	Law/Section	Source ID	Action Type	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
No data records returned														

Environmental Conditions

Water Quality

Permit	Combined Sewer	Number of CSO (Combined Sewer	12-Digit WBD (Watershed Boundary Dataset) HUC (BAD	WBD (Watershed Boundary Dataset) Subwatershed Name (BAD	State Waterbody Name (ICIS (Integrated Compliance	Impaired	Impaired	Causes of Impairment(s)	Watershed with ESA (Endangered Species Act) listed

Permit ID	Combined Sewer System?	Number of CSO (Combined Sewer Overflow) Outfalls	12-Digit [redacted] (Watershed Boundary Dataset) HUC (WBD)	[redacted] (Watershed Boundary Dataset) Subwatershed Name (WBD)	State Waterbody Name (ICIS-Integrated Compliance Information System)	Impaired Waters	Impaired Class	Causes of Impairment(s) by Group(s)	Watershed with [redacted] Endangered Species Act-listed Aquatic Species?
No data records returned									

Waterbody Designated Uses

Reach Code	Waterbody Name	Exceptional Use	Recreational Use	Aquatic Life Use	Shellfish Use	Beach Closure Within Last Year	Beach Closure Within Last Two Years
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Air Quality

Nonattainment Area?	Pollutant(s)	Applicable Nonattainment Standard(s)
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No	Lead	
Yes	Particulate Matter	PM-2.5 (1997), PM-2.5 (2006)
No	Carbon Monoxide	
No	Nitrogen Dioxide	
No	Sulfur Dioxide	

Pollutants

Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Releases
No data records returned								

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
No data records returned

Demographic Profile

Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

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Center Latitude:	40.67221	Water Area:	2%	Housing Units in Area:	10,076
Center Longitude:	-74.52439	Population Density:	933/sq.mi.	Households on Public Assistance:	112
Total Persons:	25,804	Percent Minority:	17%	Persons Below Poverty Level:	2,048

Race Breakdown	Persons (%)	Age Breakdown	Persons (%)
White:	22,581 (88%)	Child 5 years and younger:	1,276 (5%)
African-American:	494 (2%)	Minors 17 years and younger:	6,734 (26%)
Hispanic-Origin:	1,322 (5%)	Adults 18 years and older:	19,071 (74%)
Asian/Pacific Islander:	2,093 (8%)	Seniors 65 years and older:	3,877 (15%)
American Indian:	17 (0%)		
Other/Multiracial:	619 (2%)		

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown	Households (%)
Less than 9th Grade:	428 (2.47%)	Less than $15,000:	385 (4.11%)
9th through 12th Grade:	377 (2.18%)	$15,000 - $25,000:	411 (4.39%)
High School Diploma:	3,007 (17.35%)	$25,000 - $50,000:	912 (9.74%)
Some College/2-yr:	2,881 (16.62%)	$50,000 - $75,000:	1,289 (13.77%)
B.S./B.A. or More:	10,638 (61.38%)	Greater than $75,000:	6,366 (67.99%)

Detailed Facility Report

Facility Summary

GELLNER & CO INC
50 DIVISION AVE, MILLINGTON, NJ 07946

FRS (Facility Registry Service) ID: 110014681781
EPA Region: 02
Latitude: 40.67233
Longitude: -74.52287
Locational Data Source: FRS
Industry: Utilities
Indian Country: N

Enforcement and Compliance Summary

Statute	Insp (5 Years)	Date of Last Inspection	Compliance Status	Qtrs with NC (Noncompliance) (of 12)	Qtrs with Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
RCRA	--	12/20/2011	**No Violation Identified**	0	0	--	--	--	--	--

Regulatory Information

Clean Air Act (CAA): No Information
Clean Water Act (CWA): No Information
Resource Conservation and Recovery Act

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information

(RCRA): Inactive ( ) Other (NJN986627792)
Safe Drinking Water Act (SDWA): No Information

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110014681781					N	40.67233	-74.52287
RCR	RCRA	NJN986627792	Other	Inactive ( )			N		

Facility Address

System	Statute	Identifier	Facility Name	Facility Address
FRS		110014681781	GELLNER & CO INC	50 DIVISION AVE, MILLINGTON, NJ 07946
RCR	RCRA	NJN986627792	GELLNER & CO INC	50 DIVISION AVE, LONG HILL TWP, NJ 07946

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Desc
No data records returned			

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
RCR	NJN986627792	221119	Other Electric Power Generation

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			

Enforcement and Compliance

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	Facility-Level Status	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**

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Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site

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Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
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Demographic Profile

Demographic Profile of Surrounding Area (3 Miles)

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B.S./B.A. or More:	10,638 (61.38%)	Greater than $75,000:	6,366 (67.99%)

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

January 2019

Appendix 9

Historic Documents

UNDERGROUND STORAGE TANK CLOSURE PLAN APPROVAL APPLICATION

TIFA LIMITED MILLINGTON, NJ FACILITY

Prepared for:

Tifa Limited
50Division Avenue
Millington, NJ 07946

UST Registration Pending

Prepared In Accordance With NJAC 7:14B

October 1992

DUNN CORPORATION
Engineers, Geologists, Environmental Scientists
35 Waterview Boulevard
Parsippany, NJ 07054
Tel: 201/299-9001
Fax: 201/299-0021

Cynthia P. Hughes
Senior Engineer

Albany, NY Atlanta, GA Buffalo, NY Chicago, IL
Concord, NH Denver, CO Harrisburg, PA New York, NY Parsippany, NJ

DUNN CORPORATION
Engineers, Geologists, Environmental Scientists
35 Waterview Boulevard
Parsippany, NJ 07054

UNDERGROUND STORAGE TANK SYSTEM
CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
BUREAU OF UNDERGROUND STORAGE TANKS
CN-029, TRENTON, NJ 08625-0029

TMS # C92-3911 **UST #** 0240699

Tifa Limited
50 Division Ave
Millington N.J.
(Morris)

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPROVAL TO PERFORM THE FOLLOWING ACTIVITY IN ACCORDANCE WITH N.J.A.C. 7:14B-1 et. seq.:

ABANDONMENT IN PLACE OF: two 30,000 gallon #6 oil UST(s) and appurtenant piping.

SITE ASSESSMENT: "18" soil samples will be taken around the excavation and 1 soil sample for every 15 feet of piping; samples will be collected and analyzed for TPHC; 25% of the samples will be analyzed for PAH's biased to the highest results.

ON-SITE MANAGER: Carol Blochlinger TELEPHONE: (908)647-4570

OWNER: TELEPHONE:

EFFECTIVE DATE: NOV 09 1992

THIS FORM MUST BE DISPLAYED AT THE SITE DURING THE APPROVED ACTIVITY AND MUST BE MADE AVAILABLE FOR INSPECTION AT ALL TIMES.

Michael S Kelly (for)

KEVIN F. KRATINA, ACTING BUREAU CHIEF
BUREAU OF UNDERGROUND STORAGE TANKS

UST-011 GREEN- APPLICANT COPY- APPLICANT

TOWNSHIP OF PASSAIC
1302 LONG HILL ROAD
MILLINGTON, NEW JERSEY 07946

FIRE PROTECTION SUBCODE
TECHNICAL SECTION

Date Received
Date Issued 1/25/93
Control #
Permit # 8263

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 119 Lot 001
Work Site Location 50 Division Ave
Millington, N.J.
Owner in Fee TIFA Limited
Address 50 Division Ave
Millington, NJ
Tele. (908) 647-45200
Contractor C. L. Neville Construction
Address 41 W. 8th St.
Kenilworth, N.J. 07033
Tele. (908) 276-5545
Lic. No. G. 0001302
Federal Emp. No. 22-2637230 or Social Security No.

B. FIRE PROTECTION CHARACTERISTICS

Use Group Present U Proposed U
Constr. Class. Present Proposed
Heating Systems [ ] New [ ] Existing
Type: [ ] Gas [ ] Oil [ ] Electrical [ ] Solar
[ ] Other
Location:
Total Est. Cost of Fire Prot. Work $ [ ] Other

JOB SUMMARY (Office Use Only)

PLAN REVIEW:
[ ] No Plans Required
Joint Plan Review Required:
[ ] Bldg. [ ] Plumb. [ ] Elec.
[ ] Fire Plans Approved
Date: 1-27-93
Approved by: L.R. Amerle

SUBCODE APPROVAL:
[ ] CO [ ] CCO [ ] CA
Date:
Approved by:

INSPECTIONS: Type:	Dates (Month/Day) Failure	Failure	Approval	Initial
Suppression Test				
Fire Alarm Test				
Smoke Test				
Mechanical				
TCO				
Other				
Other				
Other				

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Lawrence Neville
SIGNATURE

D. TECHNICAL SITE DATA

Description of Work Abandonment of 2-30,000 Fuel Oil Tanks

Water Supply Source
Method of Valve Supervision
Local Alarm Supervision
Central Supervision
Proprietary Supervision

Flammable Liquid Storage Tanks ( ) Capacity Fuel
Combustible Liquid Storage Tanks ( ) Capacity Fuel
L.P.G. Storage Tanks ( ) Capacity Fuel
L.N.G. Storage Tanks ( ) Capacity Fuel

	Number	FEE (Office Use Only)
Wet Sprinkler Heads		
Dry Sprinkler Heads		
TOTAL		
Smoke Detectors		
Heat Detectors		
TOTAL		
Stand Pipes		
Kitchen Hood Exhaust Systems		
Pre-Engineered Systems		
CO_2 Suppression		
Halon Suppression		
Foam Suppression		
Dry Chemical		
Wet Chemical		
Abandon 2-30,000 GAL Gas or Oil Fired Appliance		
OTHER STORAGE TANKS 2		$70.00

Administrative Surcharge $
Paid [ ] Check # Minimum Fee $
Collected by TOTAL FEE $ 70.00

U.C.C. Form F-140A
1 White=Inspector Copy 2 Canary=Office Copy
3 Pink=Office Copy 4 Gold=Applicant Copy

FIRE PROTECTION SUBCODE
TECHNICAL SECTION

Date Received
Date Issued 1/25/93
Control #
Permit # 8263

TOWNSHIP OF PASSAIC
MILLINGTON ROAD
MILLINGTON NEW JERSEY 07946

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 119 647-1612 Lot 001
Work Site Location 50 Division Ave
Millington, N.J.
Owner in Fee TEA Limited
Address 50 Division Ave
Millington, NJ
Tele. (908) 647-45200
Contractor C. L. Neville Construction
Address 41 N. 8th St
Kenilworth N.J. 07033
Tele. (908) 276-5545
Lic. No. 6.0001302
Federal Emp. No. 22-2637230 or Social Security No.

B. FIRE PROTECTION CHARACTERISTICS

Use Group Present U Proposed U
Constr. Class. Present Proposed
Heating Systems [ ] New [ ] Existing
Type: [ ] Gas [ ] Oil [ ] Electrical [ ] Solar
[ ] Other
Location:
Total Est. Cost of Fire Prot. Work $ [ ] Other

D. TECHNICAL SITE DATA

Description of Work Abandonment of 2-30,000 Fuel oil tanks

Water Supply Source
Method of Valve Supervision
Local Alarm Supervision
Central Supervision
Proprietary Supervision

Flammable Liquid Storage Tanks ( ) Capacity Fuel
Combustible Liquid Storage Tanks ( ) Capacity Fuel
L.P.G. Storage Tanks ( ) Capacity Fuel
L.N.G. Storage Tanks ( ) Capacity Fuel

	Number	FEE (Office Use Only)
Wet Sprinkler Heads		
Dry Sprinkler Heads		
TOTAL		
Smoke Detectors		
Heat Detectors		
TOTAL		
Stand Pipes		
Kitchen Hood Exhaust Systems		
Pre-Engineered Systems		
CO_2 Suppression		
Halon Suppression		
Foam Suppression		
Dry Chemical		
Wet Chemical		
Abandon 2-30,000 GAL		
~~Gas or Oil Fired Appliance~~		
OTHER STORAGE TANKS	2	$ 70.00

JOB SUMMARY (Office Use Only)

PLAN REVIEW:
[ ] No Plans Required
Joint Plan Review Required:
[ ] Bldg. [ ] Plumb. [ ] Elec.
[ ] Fire Plans Approved
Date: 1-22-93
Approved by: L.R. Crowe

SUBCODE APPROVAL:
[ ] CO [ ] CCO [ ] CA
Date: 4-22-93
Approved by: L.R. Crowe

INSPECTIONS: Type:	Dates (Month/Day) Failure	Failure	Approval	Initial
Suppression Test				
Fire Alarm Test				
Smoke Test				
Mechanical				
TCO				
Other				
Other				
Other				

Administrative Surcharge $
Paid [ ] Check # Minimum Fee $
Collected by TOTAL FEE $ 70.00

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

J. Lawrence Ward
SIGNATURE

U.C.C. Form F-140A

1 White=Inspector Copy
2 Canary=Office
3 Pink=Office Copy
4 Gold=Applic

1/29/93 Site meeting and inspection of tanks during removal operation

2/5/93 Inspected tank P-1, prior to filling. Tank found clean in accordance with letter dated 2-1-93 rec'd. from Carol Brechlinger certifing tank previously cleaned for trace of petroleum or any other product visible inside of tank. Sides of tank found rusted. Approved for slurry filling.

3/12/93 Inspected site. Tank P-1 found filled to top with slurry. Tank P-2 found empty, waiting for slurry fill

4/22/93 Inspected site. Both tanks found filled in with slurry concrete. Ground restored to grade.

TOWNSHIP OF LONG HILL
1802 LONG HILL RD.
MILLINGTON, NEW JERSEY 07946
(908) 647-1612

NEW JERSEY UNIFORM CONSTRUCTION CODE

CERTIFICATE

Date Issued 6/10/93
Control #
Permit # 8263

IDENTIFICATION

Block 119 Lot 1
Work Site Location 50 Division Ave.
Millington, NJ
Owner in Fee Tifa Limited
Address Same as above

Tele. ( ) 647-4570
Contractor C.L. Neville Const.
Address 41 N. 8th St.
Kenilworth, NJ
Tele. ( ) 276-5545
Lic. No. or Bldrs. Reg. No.
Federal Emp. No. 22-2637230
or Social Security No.

Home Warranty No. N/A
Use Group U
Maximum Live Load
Description of Work/Use:

Abandonment in place, of 2 30,000 gal fuel oil tanks.

Type of Warranty Plan: [ ] **State** [ ] **Private**
Construction Classification
Maximum Occupancy Load

CERTIFICATE OF OCCUPANCY/APPROVAL

☐ **CERTIFICATE OF OCCUPANCY** ☒ **CERTIFICATE OF APPROVAL**

This serves notice that said building, structure, or equipment has been constructed or installed in accordance with the New Jersey Uniform Construction Code, and is approved for use and/or occupancy.

☐ **CERTIFICATE OF CONTINUED OCCUPANCY**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **TEMPORARY CERTIFICATE OF OCCUPANCY**

If this is a Temporary Certificate of Occupancy the following conditions must be met no later than _____, 19____ or the owner will be subject to a fine or order to vacate:

Mary Ellen Balady
CONSTRUCTION OFFICIAL

Fee $
Paid [ ] Check No.
Collected by:

U.C.C. Form F-260A

1 WHITE—APPLICANT 2 CANARY—OFFICE 3 PINK—TAX ASSESSOR

12301 1

Block 119 Lot 1 MASTER CARD

50 Division Avenue

8263	1/25/93	Abandon 2 fuel oil tanks	Tifa Ltd.	6/10/93
8181	10/6/92	Footing for canopy	Tifa Ltd.	3/10/09
8181(u)	10/21/93	Canopy	Tifa Ltd.	3/10/09
99-224	6/24/99	4 temp. trailers (temp. electric)	TIFA Ltd.	
99-224 Update	6/28/99	electric upgrade temp. trailers	TIFA Ltd.	
99-224	Update 7/22/99	(4) electrical outlets for trailers	TIFA LTD.	
02-333	8/8/02	wall ac unit	TIFA	3/10/09
03-43	2/10/03	footings for interior alterations	Contemporary Closets	TC07/28/03
03-43A	3/3/03	update interior alteration	Contemporary Closets	TC07/28/03
03-43B	3/10/03	fire subcode for alteration	Contemporary Closets	TC07/28/03
03-103	4/10/03	CO - Risa Fashions	TIFA Ltd.	4/5/04
03-43	7/28/03	contemporary closets violation		3.20.07
04-234	6/10/04	cco - Dolce Desserts	TIFA	12/31/04
04-361	8/16/04	cco-Lawn Dr.	TIFA	6/30/10
05-293	6/27/05	Reroof (EPDM)	Tifa	3/10/09

12301 1

Block 119 Lot 1 Bldg. #1

50 Division Ave., Millington

4383	5/22/78	Renovations	Tifa Ltd.	5/12/80
4759	11/21/79	New Partition & Sink	" " (Print Shop)	5/12/80
4796	2/1/80,	Rest room renovation	" "	5/12/80
4802	3/3/80	Interior Alterations	" " (Culbertson)	5/12/80
4871	5/31/80	Alts. to 2nd flr lab	" " (Gellner)	1/27/81
5209	1/29/82	Alts. & Repr Sprinkler Sys.	" "	3/5/83
5623	12/10/83	Sidewalk/Curb for entry	TIFA Ltd	
5655	3/22/84	Repair 600 AMP Serv.	TIFA Ltd.	4/10/84
5640	2/28/84	Weatherproof/Insulate/Reprs	" "	
5709	5/31/84	PERMITS B & C per Court OF Order 5/1/84 Bldg. & Fire	TIFA, LTD	3/20/85
5864	12/13/84	Masonry Block non-bearing party wall	Tifa, Ltd.	6/1/85
5979	5/9/85	Electrical Alts.	TIFA, Ltd.	10/24/85
5767	8/30/84	154 Sprinkler heads	TIFA, Ltd.	3/31/86
9561	2/1/96	Sprinkler system	Tifa Ltd.	

TOWNSHIP OF PASSAIC
1802 LONG HILL ROAD
MILLINGTON, NEW JERSEY 07946

CONSTRUCTION PERMIT

UNIFORM CONSTRUCTION CODE

Date Issued 11/25/93
Control #
Permit # 8263

IDENTIFICATION Block 79 Lot 001

Work Site Location 50 Division Ave
Millington, N.J.

Owner in Fee TIFA

Address 50 Division Ave
Millington, N.J.

Tele. (908) 647-4570

Contractor C.A. Deville Construction

Address 41 W. 5th St
Kenilworth, N.J.

Tele. (908) 276-5545

Lic. No. or Bldrs. Reg. No. Exp. Date 6-0001302

Federal Emp. No. 22-2633830

or Social Security No.

is hereby granted permission to perform the following work:

[ ] BUILDING [ ] PLUMBING [ ] OTHER

[ ] ELECTRICAL [ ] FIRE PROTECTION

DESCRIPTION OF WORK:

ABANDONMENT in Place -
2 - 30,000 gallon #6 Fuel Oil Tanks.

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work $ 6,100.00

Mary Ellen Balady
CONSTRUCTION OFFICIAL

U.C.C. Form F-170A

1 WHITE—INSPECTOR 2 CANARY—OFFICE 3 PINK—OFFICE 4 GOLD—APPLICANT

PAYMENTS (Office Use Only)	
Building	
Plumbing	
Electrical	
Fire Protection	70.00
Other	
Other	
DCA Training Fee	
Cert. of Occ.	
Other	
Total	70.00
Check No.	6796
Cash	
Collected By:	MEB

(see reverse side)

1230 / 1

Block 119 Lot 1 Site Plan Approvals and Waivers

50 Division Avenue, Millington

1977	original approval for TIFA
1979	Teledyne Rotolite site plan waiver
1980	dismissed
1980	proposed warehouse 5 & 6 approved (expired)
1981	Passaic Valley Coach Lines (expired)
84-4P	approval of existing conditions, parking area
84-13P	Coriell, McGowan Assoc., Round Cove Enterprises, Framar Metal Products, Crystalline Optics for Advanced Technology Systems
84-15P	Coriell for occupancy of half of Bldg. 2, paved parking area, tractor-trailer parking
84-19P	waiver for Comissary Associates
85-24P	waiver for Pro Com, Tonny International, A.M. News Service, Coriell (into bldg. 4)
86-16P	waiver for Commissary Associates

MORE .....-->

1231 / 1

Block 119 Lot 1,2,3 con't

1377	3/16/53	Factory Add.	Nat'l Gypsum	
1910 ✓	7/24/56	Housing for Indust. Equip.	" "	
1954 ✓	9/29/56	Manufacturing	" "	
2363 ✓	6/5/60	Front Entrance	" "	
2724 ✓	9/12/62	Warehouse 150X200	" "	1/31/64
2887 ✓	11/13/63	Warehouse 100X150	" "	12/31/64
~~4383~~	~~5/22/78~~	~~Renovations~~	~~Tifa Ltd.~~ * 1	~~5/12/80~~
~~4759~~	~~11/21/79~~	~~New partition & sink~~	~~TIFA LTD. (print shop)~~ #2	~~5/12/80~~
~~4760~~	~~11/21/79~~	~~Mens'&Ladies' room,office area~~	~~TIFA LTD. (Pru)~~ # 2	~~5/12/80~~
~~4796~~	~~2/1/80~~	~~Rest room renovation~~	~~" "~~ BLDG #1	~~5/12/80~~
~~4802~~	~~3/3/80~~	~~Interior Alts~~	~~TIFA LTD (COLLECTION) #1~~	~~5/12/80~~
~~4803~~	~~3/3/80~~	~~Interior Alts~~	~~TIFA LTD (CHROMONICS) #3~~	~~5/12/80~~
~~4815~~	~~3/7/80~~	~~NEW MENS'& LADIES' ROOMS~~	~~" " (Bldg #2)~~	
~~4871~~	~~3/31/80~~	~~Alts to 2nd flr lab BLDG #1~~	~~TIFA LTD (CORNER) #1~~	
6198	4/3/86	Bypass septic tank	Tifa, LTD.	4/30/86

* Transfered to individual Bldg Cards. RPG

/2361 / MASTER CARD

Block 119 Lot 1,2,3

50 Division Ave., Millington

11	11/6/35	Save All Cover	Asbestos Corp.	10/3/36
89	11/12/36	Factory	" "	1/10/37
~~130~~	~~5/15/37~~	~~Garage~~	~~C. Lundgren~~	~~8/12/37~~
180	8/13/38	Alt. Factory Alts.	Asbestos Corp.	7/12/38
213	10/15/38	Dust House	" "	1/15/39
~~214~~	10/10/38	Alterations	E.K. Kenworthy	
232	2/8/39	Factory Addition	Asbestos Corp.	7/1/39
289	9/12/39	Shipping Room	" "	
374	1/25/41	Warehouse	" "	4/19/41
412	8/21/41	Alterations	" "	
451	1/2/42	Factory	" "	
546	9/7/43 Ent.	to curing tank	" "	
1085	12/17/49	Train Shed	" "	
1141	8/25/50	Garage	Smith Asb. Corp.	

Block 118 Lot 2/5 incl. p.21

50 Division Ave., Millington

1698 ✓	7/23/55	Pump House	Nat'l Gypsum	
2301 ✓	11/16/59	Machine Encl.	" "	

Demolition Permit:

#D-1 1/17/69 Nat'l Gypsum Co. - George P. Reilly

50 Division Ave., Millington

6809	4/20/88	30 KUA /100 Amp Ser.	Marlin Candles	
6810	4/20/88	75 KUA/ 100 Amp Ser.	Dash Offset	
6837	5/16/88	Interior Alterations	Pita Chips Tifa Ltd.	6/16/88
6940	8/1/88	New wiring service	Wintronics Area	
7077	11/3/88	New H.V.A.C. System	Wintronics	10/17/90
7569	8/30/90	Certificate of Contng. Occpy.	High Gear Cyclery	8/30/90
97249	7/29/97	INSTALL MELTABLE DROP CEILING	WINTRONICS	— 8-25-97

12301 /

Block 119 Lot 1 Bldg. #3

50 Division Ave., Millington

4803	3/3/80	Interior Alts.	Tifa Ltd. (Chiarmonte)	5/12/80
4902	7/28/80	Elec. Work 600Amp Serv. etc.	Tifa (Glas-flex)	10/1780
5207	1/28/82	Reprs/Alts/ Renovation	" "	
5623	12/10/83	Emerg. Lghtg/Patch Floor	TIFA Ltd.	8/14/84
5598	11/11/83	Interior Alts-New Space	Tifa Ltd. (Sphinx Electro-Plate)	2/14/8
5631	1/26/84	Electrical Work	" " " " "	3-30-85
5708	5/31/84	Permits A,D.&E per court order 5/1/84 Elec. & Bldg.	Tifa Ltd.	
5734	7/12/84	Sprinkler Work	Tifa Ltd.	1/23/85
5759	8/17/84	Delinquent Filing - K & H Ent. Office	Tifa Ltd.	10/4/84
5808	10/15/84	Relocate K&H Ent. - space for Growth Ind.	Tifa Ltd.	8/6/85
5856	11/27/84	Alterations for Commissary Assoc. Inc.	Tifa Ltd.	2/2/85
5980	5/9/85	Electrical Alterations	Tifa, Ltd.	
6198	4/3/86	Bypass septic tank	" "	
6321	7/24/86	Alts. for Growth Catering	Tifa, Ltd.	12/2/88 (F)

12301 /

Block 119 Lot 1 Bldg. #3

50 Division Ave., Millington

8007	1/3/89	Wiring -woodwork shop	Tifa Ltd. (Design Tech.)	(spray booth not instal 1-31-89
8007	1/18/89	Electrical update	Tifa Ltd. "	

05-0080 2/26/05 tenant fit-out Biorepository Tifa Realty 6/13/

Bl. 12301 Lot 1
50 Division Ave – Tifa

06-323	6/13/06	Burglar alarm	Seventh Tooth	9.6.06
06-5776	11.15.06	reroof over existing roof partial area	Tifa	3/2/09
07-250	6.7.07	interior alterations – High Gear Cycle		7.10.07
08-0080	2.26.08	tenant fit-out – Biorepository		6/13/0
09-0064	2/11/09	tenant fit-out: Gordon		3/11/09
10-168		fire alarm panel	CB Richards	8/2/10

12301 1
Block 119 Lot 1 Bldg. #2

50 Division Ave., Millington

4760	11/21/79	Mens' & Ladies' Room, Off. area	Tifa Ltd. (Pru)	5/12/80
*4815	3/17/80	New mens' & ladies' room	" "	3/26/82
7573	9/17/90	Moving ~~as~~ piping	Tifa, Ltd.	3/6/91
7597	10/10/90	Interior alterations (Recorder Pblg.)	Tifa, Ltd. Bldg.2	(t)3.6.91 7/18/
97-326	9/24/97	New 2000 AMP Service Bldg. #2	Tifa, Ltd.	

* Error - Located in Bldg. No. 3 RPC

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 10

EPH Soil Remediation Standard Calculator Outputs

Table 1a
EPH Calculator Results
Sample AOC-2-4

COMPOSITION-SPECIFIC EXTRACTABLE PETROLEUM HYDROCARBON (EPH) SOIL REMEDIATION CRITERION (SRC) CALCULATOR FOR NON-#2 FUEL OIL/DIESEL OIL PETROLEUM HYDRCARBON MIXTURES (Version 2.0, August 9, 2010)

DATA ENTRY CELLS

ENTER ALL CONCENTRATIONS AS MILLIGRAMS/KILOGRAM (mg/kg)
FOR NON DETECT VALUES, ENTER "0" or "ND" (without the quotation marks)
REMEMBER TO ENTER ACTUAL SAMPLE IDENTIFICATION IN PLACE OF "SAMPLE 1", ETC.
REMEMBER TO INDICATE WHETHER THE SAMPLE IS "RESIDENTIAL" (R) OR "NON-RESIDENTIAL" (N) [OR USE DROP-DOWN LIST]
ALL DATA MUST BE ENTERED FOR EACH SAMPLE FOR THE EPH CRITERION TO BE CALCULATED
CLICK ON THE "CALCULATE EPH SRC" BUTTON TO CALCULATE THE SAMPLE-SPECIFIC EPH SOIL REMEDIATION CRITERION
IF YOU CHANGE ANY INPUT DATA, YOU MUST CLICK ON "CALCULATE EPH SRC" AGAIN TO RECALCULATE THE SOIL REMEDIATION CRITERION
IF THE RESULTS FROM THE GC ANALYSIS INDICATE AN EPH CONCENTRATION LESS THAN 1,700 mg/kg, IT IS NOT NECESSARY TO USE THIS CALCULATOR

EC* RANGE / SAMPLE ID		AOC-2-4	AOC 2-4	SAMPLE 3	SAMPLE 4	SAMPLE 5
Enter Residential or Non-Residential		Residential	Non-Residential			
ALIPHATICS	EC9-EC12	46.2	46.2			
	EC12-EC16	163.0	163.0			
	EC16-EC21	362.0	362.0			
	EC21-EC40	748.0	748.0			
AROMATICS	EC10-EC12	0.0	0.0			
	EC12-EC16	59.8	59.8			
	EC16-EC21	463.0	463.0			
	EC21-EC36	708.0	708.0			
Total Concentration (mg/kg)		2,550.0	2,550.0			

Calculated EPH SRC# (mg/kg)	3,400	37,000			
Allowable% EPH SRC (mg/kg)	3,400	17,000^			
ABOVE/BELOW ALLOWABLE EPH SRC (i.e., PASS or FAIL)	BELOW (PASS)	BELOW (PASS)			

* = Equivalent Carbon
# = Soil Remediation Criterion
% = Accounts for residual product
17,000^ = Default maximum value for all non-#2 fuel oil/diesel oil petroleum hydrocarbon mixtures

Calculate EPH SRC | Print Results | Intro Message

Reset Data | Instructions

Run Date = 10/09/2013

COMPOSITION-SPECIFIC EXTRACTABLE PETROLEUM HYDROCARBON (EPH) SOIL REMEDIATION CRITERION (SRC) CALCULATOR FOR NON-#2 FUEL OIL/DIESEL OIL PETROLEUM HYDRCARBON MIXTURES (Version 3.0, October 18, 2017)

DATA ENTRY CELLS

ENTER ALL CONCENTRATIONS AS MILLIGRAMS/KILOGRAM (mg/kg)
FOR NON DETECT VALUES, ENTER "0" or "ND" (without the quotation marks)
REMEMBER TO ENTER ACTUAL SAMPLE IDENTIFICATION IN PLACE OF "SAMPLE 1", ETC.
REMEMBER TO INDICATE WHETHER THE SAMPLE IS "RESIDENTIAL" (R) OR "NON-RESIDENTIAL" (N) [OR USE DROP-DOWN LIST]
ALL DATA MUST BE ENTERED FOR EACH SAMPLE FOR THE EPH CRITERION TO BE CALCULATED
CLICK ON THE "CALCULATE EPH SRC" BUTTON TO CALCULATE THE SAMPLE-SPECIFIC EPH SOIL REMEDIATION CRITERION
IF YOU CHANGE ANY INPUT DATA, YOU MUST CLICK ON "CALCULATE EPH SRC" AGAIN TO RECALCULATE THE SOIL REMEDIATION CRITERION
IF THE RESULTS FROM THE GC ANALYSIS INDICATE AN EPH CONCENTRATION LESS THAN 1,700 mg/kg, IT IS NOT NECESSARY TO USE THIS CALCULATOR

EC* RANGE / SAMPLE ID		AOC 7-2	AOC 7-2	AOC 7-3	AOC 7-3	
Enter Residential or Non-Residential		Residential	Non-Residential	Residential	Non-Residential	
ALIPHATICS	EC9-EC12	0.0	0.0	42.4	42.4	
	EC12-EC16	244.0	244.0	351.0	351.0	
	EC16-EC21	629.0	629.0	681.0	681.0	
	EC21-EC40	2,510.0	2,510.0	2,380.0	2,380.0	
AROMATICS	EC10-EC12	0.0	0.0	0.0	0.0	
	EC12-EC16	38.0	38.0	49.9	49.9	
	EC16-EC21	474.0	474.0	575.0	575.0	
	EC21-EC36	1,450.0	1,450.0	1,930.0	1,930.0	
Total Concentration (mg/kg)		**5,345.0**	**5,345.0**	**6,009.3**	**6,009.3**	

Calculated EPH SRC# (mg/kg)	**4,500**	**48,000**	**3,800**	**41,000**	
Allowable% EPH SRC (mg/kg)	**4,500**	**17,000^**	**3,800**	**17,000^**	
ABOVE/BELOW ALLOWABLE EPH SRC (i.e., PASS or FAIL)	ABOVE (FAIL)	BELOW (PASS)	ABOVE (FAIL)	BELOW (PASS)	

* = Equivalent Carbon
\# = Soil Remediation Criterion
% = Accounts for residual product
17,000^ = Default maximum value for all non-#2 fuel oil/diesel oil petroleum hydrocarbon mixtures

Calculate EPH SRC | Print Results | Intro Message

Reset Data | Instructions

Run Date = 02/26/2019

COMPOSITION-SPECIFIC EXTRACTABLE PETROLEUM HYDROCARBON (EPH) SOIL REMEDIATION CRITERION (SRC) CALCULATOR FOR NON-#2 FUEL OIL/DIESEL OIL PETROLEUM HYDRCARBON MIXTURES (Version 3.0, October 18, 2017)

DATA ENTRY CELLS

ENTER ALL CONCENTRATIONS AS MILLIGRAMS/KILOGRAM (mg/kg)
FOR NON DETECT VALUES, ENTER "0" or "ND" (without the quotation marks)
REMEMBER TO ENTER ACTUAL SAMPLE IDENTIFICATION IN PLACE OF "SAMPLE 1", ETC.
REMEMBER TO INDICATE WHETHER THE SAMPLE IS "RESIDENTIAL" (R) OR "NON-RESIDENTIAL" (N) [OR USE DROP-DOWN LIST]
ALL DATA MUST BE ENTERED FOR EACH SAMPLE FOR THE EPH CRITERION TO BE CALCULATED
CLICK ON THE "CALCULATE EPH SRC" BUTTON TO CALCULATE THE SAMPLE-SPECIFIC EPH SOIL REMEDIATION CRITERION
IF YOU CHANGE ANY INPUT DATA, YOU MUST CLICK ON "CALCULATE EPH SRC" AGAIN TO RECALCULATE THE SOIL REMEDIATION CRITERION
IF THE RESULTS FROM THE GC ANALYSIS INDICATE AN EPH CONCENTRATION LESS THAN 1,700 mg/kg, IT IS NOT NECESSARY TO USE THIS CALCULATOR

EC* RANGE / SAMPLE ID		AOC 7-4	AOC 7-4			
Enter Residential or Non-Residential		Residential	Non-Residential			
ALIPHATICS	EC9-EC12	92.2	92.2			
	EC12-EC16	773.0	773.0			
	EC16-EC21	1,510.0	1,510.0			
	EC21-EC40	5,060.0	5,060.0			
AROMATICS	EC10-EC12	7.5	7.5			
	EC12-EC16	110.0	110.0			
	EC16-EC21	1,190.0	1,190.0			
	EC21-EC36	3,120.0	3,120.0			
Total Concentration (mg/kg)		**11,862.7**	**11,862.7**			

Calculated EPH SRC# (mg/kg)	4,300	46,000			
Allowable% EPH SRC (mg/kg)	4,300	17,000^			
ABOVE/BELOW ALLOWABLE EPH SRC (i.e., PASS or FAIL)	ABOVE (FAIL)	BELOW (PASS)			

* = Equivalent Carbon
\# = Soil Remediation Criterion
% = Accounts for residual product
17,000^ = Default maximum value for all non-#2 fuel oil/diesel oil petroleum hydrocarbon mixtures

Calculate EPH SRC | Print Results | Intro Message

Reset Data | Instructions

Run Date = 02/26/2019

COMPOSITION-SPECIFIC EXTRACTABLE PETROLEUM HYDROCARBON (EPH) SOIL REMEDIATION CRITERION (SRC) CALCULATOR FOR NON-#2 FUEL OIL/DIESEL OIL PETROLEUM HYDRCARBON MIXTURES (Version 3.0, October 18, 2017)

DATA ENTRY CELLS

ENTER ALL CONCENTRATIONS AS MILLIGRAMS/KILOGRAM (mg/kg)
FOR NON DETECT VALUES, ENTER "0" or "ND" (without the quotation marks)
REMEMBER TO ENTER ACTUAL SAMPLE IDENTIFICATION IN PLACE OF "SAMPLE 1", ETC.
REMEMBER TO INDICATE WHETHER THE SAMPLE IS "RESIDENTIAL" (R) OR "NON-RESIDENTIAL" (N) [OR USE DROP-DOWN LIST]
ALL DATA MUST BE ENTERED FOR EACH SAMPLE FOR THE EPH CRITERION TO BE CALCULATED
CLICK ON THE "CALCULATE EPH SRC" BUTTON TO CALCULATE THE SAMPLE-SPECIFIC EPH SOIL REMEDIATION CRITERION
IF YOU CHANGE ANY INPUT DATA, YOU MUST CLICK ON "CALCULATE EPH SRC" AGAIN TO RECALCULATE THE SOIL REMEDIATION CRITERION
IF THE RESULTS FROM THE GC ANALYSIS INDICATE AN EPH CONCENTRATION LESS THAN 1,700 mg/kg, IT IS NOT NECESSARY TO USE THIS CALCULATOR

EC* RANGE / SAMPLE ID		C-2 Loading Dock	C-2 Loading Dock	C-3 Bldg 2	C-3 Bldg 2	
Enter Residential or Non-Residential		Residential	Non-Residential	Residential	Non-Residential	
ALIPHATICS	EC9-EC12	0.0	0.0	0.0	0.0	
	EC12-EC16	67.1	67.1	0.0	0.0	
	EC16-EC21	1,230.0	1,230.0	276.0	276.0	
	EC21-EC40	2,100.0	2,100.0	3,110.0	3,110.0	
AROMATICS	EC10-EC12	0.0	0.0	0.0	0.0	
	EC12-EC16	4.3	4.3	0.0	0.0	
	EC16-EC21	161.0	161.0	61.3	61.3	
	EC21-EC36	219.0	219.0	271.0	271.0	
Total Concentration (mg/kg)		**3,781.4**	**3,781.4**	**3,718.3**	**3,718.3**	

Calculated EPH SRC# (mg/kg)	**15,000**	**160,000**	**17,000**	**180,000**	
Allowable% EPH SRC (mg/kg)	**15,000**	**17,000^**	**17,000**	**17,000^**	
ABOVE/BELOW ALLOWABLE EPH SRC (i.e., PASS or FAIL)	BELOW (PASS)	BELOW (PASS)	BELOW (PASS)	BELOW (PASS)	

* = Equivalent Carbon
\# = Soil Remediation Criterion
% = Accounts for residual product
17,000^ = Default maximum value for all non-#2 fuel oil/diesel oil petroleum hydrocarbon mixtures

Calculate EPH SRC | Print Results | Intro Message

Reset Data | Instructions

Run Date = 02/26/2019

COMPOSITION-SPECIFIC EXTRACTABLE PETROLEUM HYDROCARBON (EPH) SOIL REMEDIATION CRITERION (SRC) CALCULATOR FOR NON-#2 FUEL OIL/DIESEL OIL PETROLEUM HYDRCARBON MIXTURES (Version 3.0, October 18, 2017)

DATA ENTRY CELLS

ENTER ALL CONCENTRATIONS AS MILLIGRAMS/KILOGRAM (mg/kg)
FOR NON DETECT VALUES, ENTER "0" or "ND" (without the quotation marks)
REMEMBER TO ENTER ACTUAL SAMPLE IDENTIFICATION IN PLACE OF "SAMPLE 1", ETC.
REMEMBER TO INDICATE WHETHER THE SAMPLE IS "RESIDENTIAL" (R) OR "NON-RESIDENTIAL" (N) [OR USE DROP-DOWN LIST]
ALL DATA MUST BE ENTERED FOR EACH SAMPLE FOR THE EPH CRITERION TO BE CALCULATED
CLICK ON THE "CALCULATE EPH SRC" BUTTON TO CALCULATE THE SAMPLE-SPECIFIC EPH SOIL REMEDIATION CRITERION
IF YOU CHANGE ANY INPUT DATA, YOU MUST CLICK ON "CALCULATE EPH SRC" AGAIN TO RECALCULATE THE SOIL REMEDIATION CRITERION
IF THE RESULTS FROM THE GC ANALYSIS INDICATE AN EPH CONCENTRATION LESS THAN 1,700 mg/kg, IT IS NOT NECESSARY TO USE THIS CALCULATOR

EC* RANGE / SAMPLE ID		C-4 IMP. Metals	C-4 IMP. Metals	C-5 Sphinx Elec.	C-5 Sphinx Elec.	
Enter Residential or Non-Residential		Residential	Non-Residential	Residential	Non-Residential	
ALIPHATICS	EC9-EC12	0.0	0.0	0.0	0.0	
	EC12-EC16	0.0	0.0	0.0	0.0	
	EC16-EC21	659.0	659.0	130.0	130.0	
	EC21-EC40	12,300.0	12,300.0	2,290.0	2,290.0	
AROMATICS	EC10-EC12	0.0	0.0	0.0	0.0	
	EC12-EC16	0.0	0.0	0.0	0.0	
	EC16-EC21	103.0	103.0	20.8	20.8	
	EC21-EC36	928.0	928.0	202.0	202.0	
Total Concentration (mg/kg)		**13,990.0**	**13,990.0**	**2,642.8**	**2,642.8**	

Calculated EPH SRC# (mg/kg)	**20,000**	**210,000**	**18,000**	**190,000**	
Allowable% EPH SRC (mg/kg)	**17,000^**	**17,000^**	**17,000^**	**17,000^**	
ABOVE/BELOW ALLOWABLE EPH SRC (i.e., PASS or FAIL)	BELOW (PASS)	BELOW (PASS)	BELOW (PASS)	BELOW (PASS)	

* = Equivalent Carbon
\# = Soil Remediation Criterion
% = Accounts for residual product
17,000^ = Default maximum value for all non-#2 fuel oil/diesel oil petroleum hydrocarbon mixtures

Calculate EPH SRC | Print Results | Intro Message

Reset Data | Instructions

Run Date = 02/26/2019

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 11

Asbestos Survey Report

Accredited Environmental Technologies, Inc.

PRE-DEMOLITION ASBESTOS IDENTIFICATION SURVEY

ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES

PARSIPPANY, NEW JERSEY

Survey Conducted By:	**Accredited Environmental Technologies, Inc.**
Report Prepared By:	**Eric Houseknecht Vice President**
Management Contact:	**Mr. Anthony Kaufman**
AET Project #:	**09-13-7466NJ**
Site Location:	**Buildings 1, 2, 3 and 4 50 Division Street Millington, New Jersey**
Date of Report:	**October 2, 2013**

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Accredited Environmental Technologies Inc.

EXECUTIVE SUMMARY

In September 2013, Accredited Environmental Technologies, Inc. (AET) was contracted by Environmental Waste Management Associates (EWMA) to perform a Pre-Demolition Asbestos Identification Survey within four commercial structures located at 50 Division Street in Millington, New Jersey. The purpose of this survey was to identify the presence, location and quantity of Asbestos Containing Materials (ACM) and Presumed Asbestos Containing Materials (PACM) throughout the building in support of site demolition activities.

AET's survey was conducted pursuant to the Communications of Hazards Criteria described in OSHA's Asbestos Construction Standard 29 CFR 1926.1101 and defined in EPA AHERA regulations (40 CFR Part P 763 Subpart E). The survey was performed by accredited inspectors; bulk samples were collected in the manner described in 40 CFR 763.86 and bulk samples were analyzed in a NIST/AIHA accredited laboratory. The survey was pre-demolition in scope and was also implemented in accordance with EPA's National Emission Standard for Hazardous Air Pollutants (NESHAP) for Asbestos (40 CFR Part 61 Sub Part M).

Results of AET's inspection indicate that ACM are present in the following locations:

Building 1

- Approximately 16,200 square feet of corrugated transite ceiling panels in space 28.
- Approximately 60 square feet of transite wall panels on the east and west sides of the southeast area in space 28
- Approximately 240 square feet of transite wall panels in the 2nd floor lab in space 28
- Approximately 280 square feet of transite wall panels in the 2nd floor hall in space 28.
- Approximately 150 square feet of flat corrugated transite wall panels within space 4.
- Approximately 350 square feet of flat transite wall panels within space 4.
- Approximately 2500 square feet of 9x9 tan floor tile and associated mastic adhesive in the 2nd floor large middle room of Space 29.

Note: No asbestos containing material was identified within Buildings 2, 3 and 4.

Negative Declarations for Asbestos Content

AET's visual observations and confirmatory bulk sampling/analysis indicate the following negative declarations regarding building materials with no asbestos content within the designated portions of the facilities included in AET's scope of work.

- No sprayed-on fireproofing was observed on the structural members of the subject buildings.
- No spray-applied or troweled-on decorative surfacing material was observed on the walls or ceiling systems of the subject buildings.
- The following homogeneous areas were confirmed with no asbestos content: sheetrock partition walls and associated joint compound, acoustical ceiling tiles, resilient floor coverings in buildings 2 and 3, carpet adhesives, thermal system insulation, mortar associated with masonry walls, fire stopping putty, exterior stucco material, adhesive associated with vinyl cove base moldings, concrete expansion joints, and adhesives used to fasten wall and ceiling finishes.

A more detailed evaluation of the results of the Pre-demolition Asbestos Identification Survey is found in the attached tables. The State of New Jersey, Department of Labor requires the removal of all ACM and PACM prior to demolition of a structure.

Accredited Environmental Technologies Inc.

Restrictions and limitations to AET's inspection and services performed as part of this project are detailed in the Restrictions and Limitations Sections of this Report. Contractors bidding on and/or performing demolition/renovation work must be notified of the presence of all ACM and PACM for compliance with OSHA's Asbestos Standard for the Construction Industry.

"This executive summary does not contain all the information that is detailed in the full report. The report should be read in its entirety, including any tabular findings and appendices to obtain a more complete understanding of the information provided, and to aid in any decisions made, or actions taken, based on this information."

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METHODS

Asbestos Sampling

AET's inspection consisted of a visual inspection of the subject structure to identify the presence, locations, and quantities of asbestos containing materials (ACM) or presumed asbestos containing materials (PACM). AET's certified building inspector reviewed the site, and developed an inventory of suspect building materials. AET's inspection was performed within accessible locations made available during the time on-site. Inaccessible areas were documented during the inventory process. Documentation included estimates of linear and square footages of each confirmed asbestos material. AET's survey was performed on 09/19/13, 09/20/13 and 09/24/13 by Mr. Carmelo Altomonte and Mr. George Steffe, EPA AHERA Certified asbestos building inspectors.

Bulk samples were collected from both friable and non-friable suspect asbestos containing materials. Representative core samples of each material were collected by penetrating the material to its substrate. Each sample and sample location was incorporated into a sampling log and chain of custody for each sample was documented. All samples were placed in sealed containers and labeled with an identifying code.

Bulk samples were grouped into homogenous sampling areas. A homogenous sampling area contains a suspect asbestos material that is uniform in texture, appearance, time of installation and was installed at one time, and is unlikely to consist of more than one type, or formulation of material. The quantity of samples collected per homogenous sampling area adhered to or exceeded AHERA protocol defined in 40 CFR 763.85-87. Per AHERA protocol, if any sample within the homogenous sampling area has more than 1% asbestos by weight, then the entire sampling area is assumed to contain asbestos.

Samples were classified in accordance with EPA NESHAP regulations. Classifications include Regulated Asbestos Containing Material (RACM), Category I Non-friable ACM, and Category II Non-friable ACM.

Sample Analysis

Bulk samples were analyzed by Polarized Light Microscopy (PLM) per EPA Method 600-R-93-116 in AET's Environmental Science Laboratory located in Media, Pennsylvania. PLM is the reference method of analysis to demonstrate that presumed asbestos containing materials do not contain asbestos per OSHA's Construction Standard (29 CFR 1926.1101) and EPA's Asbestos Hazard Emergency Response Act (AHERA)(40 CFR 763, Subpart E). The detection limit of the PLM referenced method is one percent (1%) asbestos.

AET's laboratory is certified by the National Institute of Standards and Technologies and is also accredited by the American Industrial Hygiene Association. TEM Analysis was performed in the NIST Certified Laboratory of EMSL Analytical, Inc. located in Cinnaminson, New Jersey.

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RESTRICTIONS/LIMITATIONS

AET's asbestos identification survey was designed and implemented to meet the Communication of Hazards Criteria as defined in the OSHA's Asbestos Construction Standard 29 CFR 1926.1101 and EPA AHERA Regulations and incorporated the relevant limitations thereof. Samples were grouped into homogeneous areas and random sampling of each homogeneous area was performed. Sample quantities for each homogeneous area met or exceeded AHERA Protocol. No information was made available concerning the time of ACM/PACM installation and/or the extent of prior asbestos abatement including replacement of the originally installed materials. At the request of EWMA, all roofing materials were excluded from the scope of this survey.

Due to the pre-demolition scope of this survey, limited destructive sampling was also performed per EPA NESHAP Regulations. NESHAP regulations require Regulated Asbestos Containing Materials (RACM) to be removed from a structure prior to demolition. RACM means (a) friable asbestos materials, (b) Category 1 Non-Friable Asbestos Containing Materials that have become friable (c) Category 1 Non-Friable Asbestos Containing Materials that will be, or have been subjected to sanding, grinding, cutting or abrading or (d) Category II Non-Friable Asbestos Containing Materials that have a high probability of becoming or have become crumbled, pulverized or reduced to powder by the forces expected to act on the materiels in the course of demolition or renovation operations. New Jersey Department of Labor Regulations (NJ Administrative Code 12:120) require the removal of **all** asbestos containing materials from a structure prior to demolition.

AET's asbestos survey did not include destructive sampling to identify/sample materials above/inside solid ceilings or walls and/or below concrete or ceramic floors or below finished grade. Demolition activities which expose previously unidentified building materials in concealed areas must be controlled and suspended until additional sampling can be completed to confirm/deny asbestos content of these materials.

Quantities of ACM listed in the survey report are approximations only. Asbestos contractors, as part of the bid preparation/submission process, must make an independent, personal examination of the site with respect to the actual quantities of ACM and evaluated conditions/limitations which may affect their work and associated costs. Further, project specifications must include the provisions for field verification of quantities/conditions and acceptance of the work by the contractor "AS IS."

The information presented in this Report represents a privileged and confidential work project between Client and Accredited Environmental Technologies, Inc. in accordance with the Agreement and/or mutual conveyances agreed upon for the performances of this work. Prior approval must be obtained prior to reproduction of this document for any other purposes other than for which it is intended. Inquiries regarding the Report or work performed should reference the assigned Project Number.

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ACCREDITED ENVIRONMENTAL TECHNOLOGIES, INC.
ASBESTOS INVENTORY DATA SHEET

CLIENT: Environmental Waste Management Associates

LOCATION: 50 Division Street - Millington, New Jersey - Building #1

AET PROJECT #: 09-13-7466NJ **DATE**: 09/19/13 - 09/20/13

SPACE/AREA	MATERIAL DESCRIPTION	EST. QUANTITY	FRIABLE (Y/N)	COND. (G/F/P)	DEBRIS (Y/N)
Space 28	Corrugated Transite Ceiling Panels	16,200 SF	N	F	N
Space 28	Flat Transite Ceiling Panels	13,500 SF	N	F	N
Space 28	Concrete Material above Corrugated Transite Ceiling Panels	16,200 SF	N	F	N
Space 28	Transite Wall Material	60 SF	N	F	N
Space 28 2nd Floor Lab	Transite Wall Panels	240 SF	Y	F	Y
Space 28 2nd Floor Hall	Transite Wall Panels	280 SF	Y	F	Y
Space 4	Corrugated Transite Wall Panels	150 SF	Y	G	N
Space 4	Flat Transite Wall Panels	350 SF	Y	G	N
Space 29 2nd Floor Large Middle Room	9x9 Tan Floor Tile and Associated Mastic Adhesive	2500 SF	N	G	N

Accredited Environmental Technologies Inc.

ASBESTOS BULK SAMPLE ANALYSIS DATA TABLE

CLIENT: ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES AET PROJECT NO: 9-13-7466NJ

LOCATION: 50 DIVISION STREET, MILLINGTON, NEW JERSEY - BUILDING 1

DATE COLLECTED: 09/19/13 **DATE ANALYZED: 09/23/13**

SAMPLE NUMBER /DESCRIPTION	ASBESTOS PRESENT	COLOR	% ASBESTOS AND TYPE	% OTHER MATERIALS
7466NJ-01: Space 28 Transite, Corrugated Ceiling Panels, North Center	Positive	Gray	10% Chrysotile	90% Non-Fibrous
7466NJ-04: Space 28 Ceiling Panels, 44 Flat, East Area Center	Positive	Gray	10% Chrysotile	90% Non-Fibrous
7466NJ-07: Space 28 Concrete above Corrugated Transite Ceiling Panels, North Center	Positive	Gray	15% Chrysotile	50% Fibrous Glass 35% Non-Fibrous
7466NJ-12: Space 28 Concrete above flat Transite Ceiling Panels, NE Area	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-17: Space 28 Concrete Ceiling Panels, Flat White, North	Negative	Gray	None Detected	<1% Cellulose 99% Non-Fibrous
7466NJ-21: Space 28 Bathroom Concrete behind 6x6 Ceramic Tile by Stall	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-23: Space 28 Bathroom, 2x4 Ceiling Tiles, North End	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
7466NJ-26: Space 28 Bathroom wall Laminate, East Wall	Negative	Tan	None Detected	95% Cellulose 5% Non-Fibrous
7466NJ-28: Space 28 Bathroom Glue under wall Laminate, NW Wall	Negative	Tan	None Detected	95% Cellulose 5% Non-Fibrous
7466NJ-31: Space 28 Flat Ceiling Panels, Cement, North Side	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-35: Space 28 Wall Cement, NW Area throughout	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-36: Space 28 Transite Wall, SE Area, East Side	Positive	Gray	10% Chrysotile	90% Non-Fibrous
7466NJ-38: Space 28 2nd Floor Carpet Glue by Entrance	Negative	Yellow	None Detected	<1% Cellulose 99% Non-Fibrous
7466NJ-40: Space 28 2nd Floor 2x4 White Ceiling Tile East Side	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
7466NJ-41: Space 28 2nd Floor 2x4 White Ceiling Tile West Side	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous

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SAMPLE NUMBER /DESCRIPTION	ASBESTOS PRESENT	COLOR	% ASBESTOS AND TYPE	% OTHER MATERIALS
7466NJ-43: Space 28 2nd Floor Lab Wall Panels, South Side	Positive	Gray	10% Chrysotile	90% Non-Fibrous
7466NJ-46: Space 28 2nd Floor Hall Wall Panels, Transite, Flat South End	Positive	Gray	20% Chrysotile	80% Non-Fibrous
7466NJ-49: Space 28 2nd Floor Joint Compound, Corridor South Middle	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-51: Space 28 2nd Floor Lab, Black Sink Undercoat, West Sink	Negative	Black	None Detected	<1% Cellulose 99% Non-Fibrous
7466NJ-53: Space 28 2nd Floor Storage Shelf Liners, Transite West Side	Negative	Gray	None Detected	10% Cellulose 90% Non-Fibrous
7466NJ-56: Space 28, 2nd Floor Paneling/Caulk East Side	Negative	Gray/Tan	None Detected	30% Cellulose 70% Non-Fibrous
7466NJ-58: Space 28, 2nd Floor Vermiculite Storage Room (1 bag and 1 box)	Negative	Tan	None Detected	100% Non-Fibrous
7466NJ-59: Space 28, 1st Floor Compressor Room, Wall Mastic North Side	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-65: Space 17, Pipe Mastic on Pipe Rack, SE Area	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-66: Space 26, 2x4 Ceiling Tiles, Office North Side	Negative	Tan/White	None Detected	100% Non-Fibrous
7466NJ-73: Space 4, Transite	Positive	Tan/White	10% Chrysotile	90% Non-Fibrous
7466NJ-75: Space 4, Wall Panels Transite Flat East Wall	Positive	Tan/White	10% Chrysotile	90% Non-Fibrous
7466NJ-77: Space 3, 2x4 White Ceiling Tiles, West	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
7466NJ-80: Space 3, Base Cove and Mastic Brown, West Side	Negative	Brown	None Detected	100% Non-Fibrous
7466NJ-83: Space 3 Brown Linoleum 12x12 Pattern “Peel & Stick” Front Room TEM Re-Analysis Result Shown	Negative	Brown	None Detected	100% Non-Fibrous
7466NJ-83: Space 3 Brown Mastic Associated with Linoleum 12x12 Pattern “Peel & Stick” Front Room TEM Re-Analysis Result Shown	Negative	Yellow	None Detected	100% Non-Fibrous

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SAMPLE NUMBER /DESCRIPTION	ASBESTOS PRESENT	COLOR	% ASBESTOS AND TYPE	% OTHER MATERIALS
7466NJ-85: Space 37 "Peel & Stick" Tiles, 3rd Room TEM Re-Analysis Result Shown	Negative	Tan	None Detected	100% Non-Fibrous
7466NJ-85: Space 37 Mastic associated with "Peel & Stick" Tiles, 3rd Room	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-86: Space 2 Tan 12x12 "Peel & Stick" Tiles, 1st Floor Office TEM Re-Analysis Result Shown	Negative	Beige	None Detected	100% Non-Fibrous
7466NJ-86M: Space 2 Mastic Associated with Tan 12x12 "Peel & Stick" Tiles, 1st Floor Office TEM Re-Analysis Result Shown	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-89: Space 2 White 12x12 "Peel & Stick" Tiles, 1st Floor Office TEM Re-Analysis Result Shown	Negative	White	None Detected	100% Non-Fibrous
7466NJ-89: Space 2 Mastic Associated with White 12x12 "Peel & Stick" Tiles, 1st Floor Office TEM Re-Analysis Result Shown	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-91: Space 2, White 12x12 Floor Tile under Tan Floor Tile, Repair Room TEM Re-Analysis Result Shown	Negative	White	None Detected	100% Non-Fibrous
7466NJ-92: Space 2, 2x4 Ceiling Tile, Repair Room	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
7466NJ-243 Space 29, Linoleum, 2nd Floor North Room "Paper Backing"	Positive	Gray	40% Chrysotile	10% Cellulose 50% Non-Fibrous
7466NJ-245 Space 29, 9x9 Tan Floor Tile, Large Middle Room Under Carpet	Positive	Tan	5% Chrysotile	90% Non-Fibrous
7466NJ-245M Space 29, Mastic associated with 9x9 Tan Floor Tile, Large Middle Room Under Carpet TEM Re-Analysis Result Shown	Positive	Black	4.4% Chrysotile	95.6% Non-Fibrous
7466NJ-251 Space 29 Ceiling Tile	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous

Accredited Environmental Technologies Inc.

Reviewed by: _____

Carl Josephson — **AIHA Accreditation #100413**
Laboratory Supervisor — **NVLAP Accreditation Lab Code 101051-0**

The report refers specifically to samples tested and shall not be reproduced, except in full, without the written approval of the laboratory. This report must not be interpreted as an endorsement by NVLAP. The US EPA defines asbestos containing materials as any material containing greater than 1% asbestos as determined by Polarized Light Microscopy in accordance with EPA Method 600/R-93/116 (i.e. detection limit is 1%).

AET recommends that NOB materials (such as floor coverings, mastics, roofing products, vinyl materials, etc.) demonstrating negative results by PLM for asbestos be re-analyzed by TEM.

Accredited Environmental Technologies Inc.

ASBESTOS BULK SAMPLE ANALYSIS DATA TABLE

CLIENT: ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES AET PROJECT NO: 9-13-7466NJ

LOCATION: 50 DIVISION STREET, MILLINGTON, NEW JERSEY - BUILDING 4

DATE COLLECTED: 09/19/13 DATE ANALYZED: 09/23/13

SAMPLE NUMBER /DESCRIPTION	ASBESTOS PRESENT	COLOR	% ASBESTOS AND TYPE	% OTHER MATERIALS
7466NJ-97: Lounge Area, Joint Compound by North Entrance	Negative	White	None Detected	100% Non-Fibrous
7466NJ-98: Lounge Area, Joint Compound East Wall	Negative	White	None Detected	100% Non-Fibrous
7466NJ-100: Gym, East Entrance Door Caulk	Negative	White	None Detected	100% Non-Fibrous
7466NJ-103: Gym, East Wall, Mortar	Negative	Tan	None Detected	100% Non-Fibrous
7466NJ-104: Gym, East Wall, Mortar	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-106: Baby Area, Carpet Mastic North Entrance	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-109 Baby Area, Fire Stop Putty, South Closet	Negative	Gray	None Detected	5% Cellulose 95% Non-Fibrous
7466NJ-111: 2nd Floor Cove Base Mastic Ladies Room	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-112: 1st Floor, 2x2 White Ceiling Tile	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
7466NJ-113: 2nd Floor, 2x2 White Ceiling Tile	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
7466NJ-115: 2nd Floor Carpet Glue, South Wall Center	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-117: 2nd Floor Cove Base Mastic	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-124: Exterior Stucco, South Wall	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-129: Exterior Expansion Joint, Wall, South End	Negative	Gray	None Detected	100% Non-Fibrous

Accredited Environmental Technologies Inc.

Reviewed by: _____

Carl Josephson — **AIHA Accreditation #100413**
Laboratory Supervisor — **NVLAP Accreditation Lab Code 101051-0**

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AET recommends that NOB materials (such as floor coverings, mastics, roofing products, vinyl materials, etc.) demonstrating negative results by PLM for asbestos be re-analyzed by TEM.

Accredited Environmental Technologies Inc.

ASBESTOS BULK SAMPLE ANALYSIS DATA TABLE

CLIENT: ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES AET PROJECT NO: 9-13-7466NJ

LOCATION: 50 DIVISION STREET, MILLINGTON, NEW JERSEY - BUILDING 2

DATE COLLECTED: 09/19/13 **DATE ANALYZED: 09/23/13**

SAMPLE NUMBER /DESCRIPTION	ASBESTOS PRESENT	COLOR	% ASBESTOS AND TYPE	% OTHER MATERIALS
7466NJ-132: Pipe Insulation, Above Walkin Freezer	Negative	Tan/White	None Detected	90% Cellulose 10% Non-Fibrous
7466NJ-133: Pipe Insulation, Above Walkin Freezer	Negative	Tan/White	None Detected	90% Cellulose 10% Non-Fibrous
7466NJ-134: Pipe Insulation, Above Walkin Freezer	Negative	Tan/White	None Detected	90% Cellulose 10% Non-Fibrous
7466NJ-138: Mortar, East Wall	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-142: Joint Compound, East Wall by Bathroom	Negative	White	None Detected	100% Non-Fibrous
7466NJ-145: Tan Floor Tile "Top Layer" South Men's Room	Negative	Tan	None Detected	100% Non-Fibrous
7466NJ-145A: Tan Floor Tile "Bottom Layer" South Men's Room	Negative	Tan	None Detected	100% Non-Fibrous
7466NJ-145M: Mastic associated with Tan Floor Tile South Men's Room	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-147: Tan Floor Tile "Top Layer" South Men's Room	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-147M: Mastic associated with Tan Floor Tile "Top Layer" South Men's Room	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-150: 12x12 Floor Tile North Bathrooms	Negative	Tan	None Detected	100% Non-Fibrous
7466NJ-150M: Mastic associated with 12x12 Floor Tile North Bathrooms	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-156 Wall Mastic, North Restroom	Negative	Tan/White	None Detected	95% Cellulose 5% Non-Fibrous
7466NJ-160: Cove Base Molding Mastic Men's Restroom	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-162: Exterior Stucco, North Wall East End	Negative	Gray	None Detected	100% Non-Fibrous
7466NJ-165: Exterior Stucco, West Wall North End	Negative	Gray	None Detected	100% Non-Fibrous

Accredited Environmental Technologies Inc.

SAMPLE NUMBER /DESCRIPTION	ASBESTOS PRESENT	COLOR	% ASBESTOS AND TYPE	% OTHER MATERIALS
7466NJ-167: Exterior Expansion Joint, North Wall	Negative	White	None Detected	100% Non-Fibrous

Reviewed by: _____

Carl Josephson
Laboratory Supervisor

AIHA Accreditation #100413
NVLAP Accreditation Lab Code 101051-0

The report refers specifically to samples tested and shall not be reproduced, except in full, without the written approval of the laboratory. This report must not be interpreted as an endorsement by NVLAP. The US EPA defines asbestos containing materials as any material containing greater than 1% asbestos as determined by Polarized Light Microscopy in accordance with EPA Method 600/R-93/116 (i.e. detection limit is 1%).

AET recommends that NOB materials (such as floor coverings, mastics, roofing products, vinyl materials, etc.) demonstrating negative results by PLM for asbestos be re-analyzed by TEM.

Accredited Environmental Technologies Inc.

ASBESTOS BULK SAMPLE ANALYSIS DATA TABLE

CLIENT: ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES AET PROJECT NO: 9-13-7466NJ

LOCATION: 50 DIVISION STREET, MILLINGTON, NEW JERSEY - BUILDING 3

DATE COLLECTED: 09/20/13 DATE ANALYZED: 09/20/13

SAMPLE NUMBER /DESCRIPTION	ASBESTOS PRESENT	COLOR	% ASBESTOS AND TYPE	% OTHER MATERIALS
7466NJ-170: 2x4 Ceiling Tiles Corridor Wild Bill, West End	Negative	Tan/White	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
7466NJ-179: Cove Base Mastic, While Bill, Restroom	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-181: Ceiling Cement, Wild Bill Main Space	Negative	White	None Detected	<1% Cellulose 99% Non-Fibrous
7466NJ-184: Wall, Wild Bill Rear Storage West Wall South	Negative	White	None Detected	50% Fibrous Glass 50% Non-Fibrous
7466NJ-190: Joint Compound, Wild Bill, Corridor	Negative	White	None Detected	100% Non-Fibrous
7466NJ-195: Flooring, Wild Bill, NE Room North	Negative	White	None Detected	90% Cellulose 10% Non-Fibrous
7466NJ-197: Expansion Joint, Wild Bill, Around Column NE Room	Negative	Tan	None Detected	50% Cellulose 50% Non-Fibrous
7466NJ-199: 2nd Floor 2x4 Ceiling Tile	Negative	Tan	None Detected	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
7466NJ-202: 12x12 White Streaked Floor Tile, 2nd Floor Closet in Hall TEM Re-Analysis Result Shown	Negative	White	None Detected	100% Non-Fibrous
7466NJ-202M: Mastic associated with 12x12 White Streaked Floor Tile, 2nd Floor Closet in Hall	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-205: Floor Tile Mastic, Closet in Hall TEM Re-Analysis Result Shown	Negative	Black	None Detected	100% Non-Fibrous
7466NJ-208: Cove Base Mastic 2nd Floor Restroom	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-211: Panel Glue, 2nd Floor Throughout	Negative	Black	None Detected	100% Non-Fibrous
7466NJ-214: Door Insulation, 2nd Floor South Office	Negative	White	None Detected	<1% Fibrous Glass 99% Non-Fibrous

Accredited Environmental Technologies Inc.

SAMPLE NUMBER /DESCRIPTION	ASBESTOS PRESENT	COLOR	% ASBESTOS AND TYPE	% OTHER MATERIALS
7466NJ-222: Joint Compound 2nd Corridor	Negative	White	None Detected	100% Non-Fibrous
7466NJ-227 Carpet Mastic 2nd Floor SE Office	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-232 Cove Base Mastic	Negative	Yellow	None Detected	100% Non-Fibrous
7466NJ-233 Residual Mastic	Negative	Yellow	None Detected	100% Non-Fibrous

Reviewed by: Carl Josephson

Carl Josephson
Laboratory Supervisor

AIHA Accreditation #100413
NVLAP Accreditation Lab Code 101051-0

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AET recommends that NOB materials (such as floor coverings, mastics, roofing products, vinyl materials, etc.) demonstrating negative results by PLM for asbestos be re-analyzed by TEM.

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

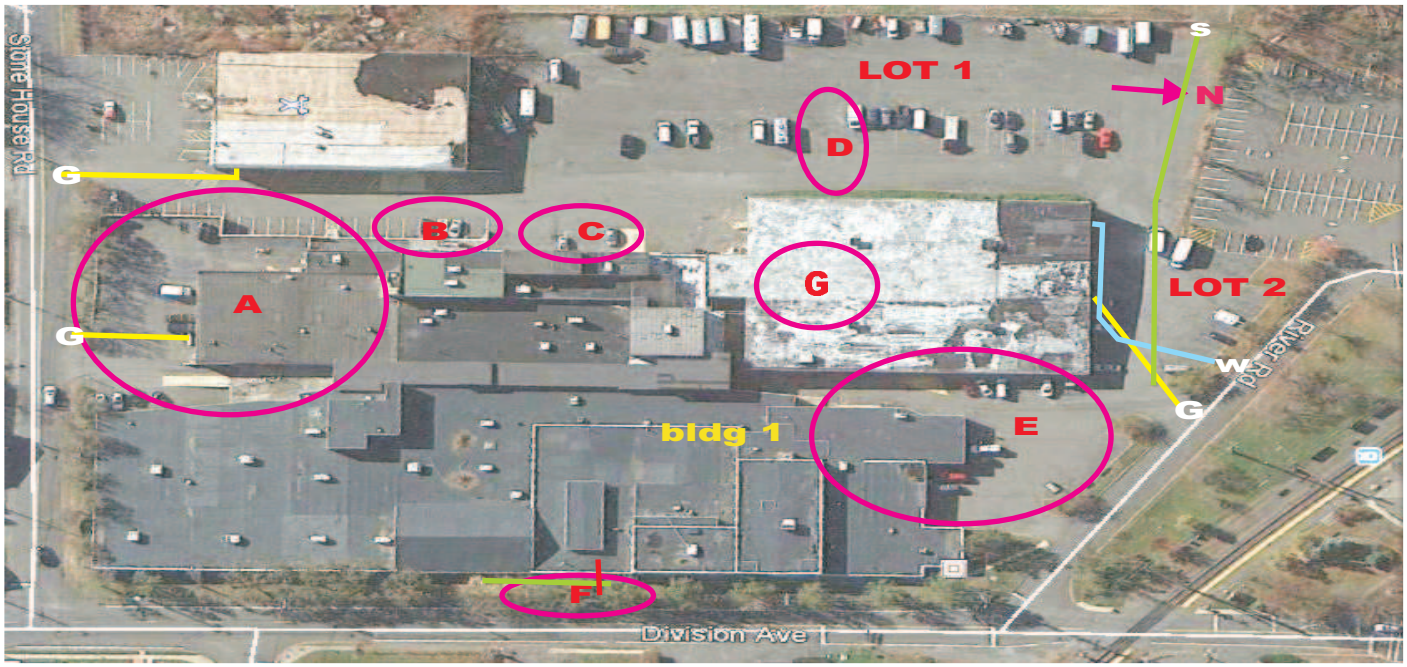
Appendix 12

Geophysical Investigation

EnviroPhysics, Inc.
Subsurface Delineation Report

Date	9/11/2013	**Client**	Environmental Waste Management Associates
Location	50 Division Ave. Millington, NJ	**Geophysicist**	Philip Duran

Equipment Used **Schoenstadt GA72CD fluxgate magnetometer, Fisher TW-6 metal detector GSSI SIR-3000 radar system with 200 mhz antenna, ERA radar system with 500 mhz antenna Geophex GEM-2 EM conductivity meter, Radiodetection RD-8000 line tracer**



Several portions of this site (A to F above) and two parking areas were geophysically investigated for the presence of buried steel fuel tanks, subsurface structures and other electrically conductive buried targets. The presence of parked cars in some areas did not allow for full access there. Photographs of detected targets are shown on the reverse of this sheet.

Area A: This parking area was found to be almost entirely paved with steel-reinforced concrete. One excavated area, one gas line and one rail line were detected here.

Area B: No targets were detected in this former storage tank area.

Area C: Two suspected decommissioned fuel tanks were delineated and marked with spray paint here.

Area D: A 4 to 5 foot diameter masonry culvert buried approximately 8 feet below grade runs in this area. This target was not geophysically detected, but it's presence was confirmed through the removal of a manway cover.

Area E: Two former oil pits were detected and marked here, along with an unknown area of buried metal (anomaly).

Area F: A former tank void, wastewater line and electric line were detected in this area.

Area G: Several electric lines and the alignment of the masonry culvert were delineated in this interior area (paved with reinforced concrete.)

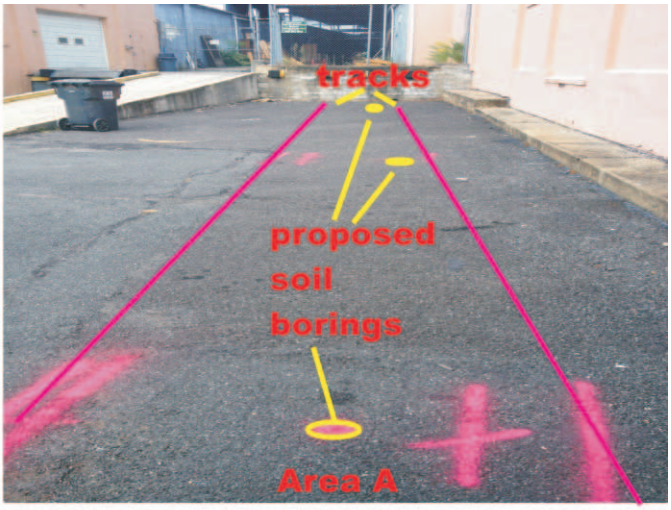
Parking areas 1 and 2: No unexpected areas of buried metal were detected in these lots. Gas, sewer and water lines were found in Lot 2. Parked cars impeded full access in both areas.

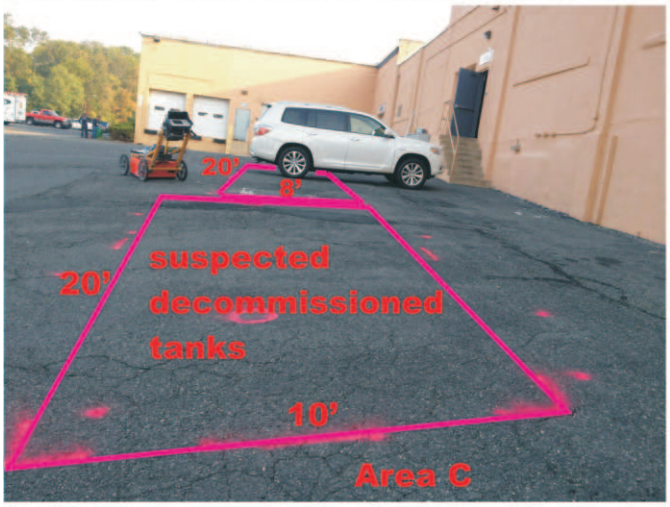
Proposed soil boring locations within each of the areas shown above were also screened for utilities as a part of this effort. The current survey, however, is not to be considered as a full utility survey of the entire site.

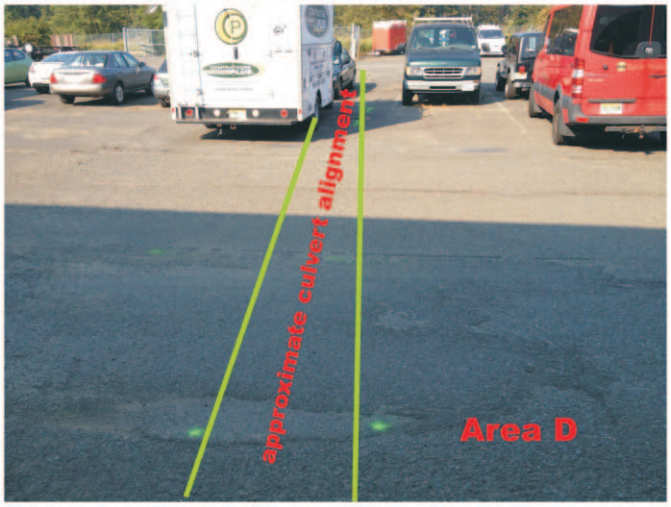
NOTICE: The methods used at this site have been used successfully at many sites to locate buried targets. There can be no guarantee, however, that every target will be detected at a particular site. Sub-surface conditions may prevent some or all geophysical methods from detecting a particular buried target. This is particularly true for non-metallic or deep targets and areas paved with steel-reinforced concrete. Target locations should be considered accurate to one foot on each side for targets defined by radar, and two feet per end for targets defined by other means.

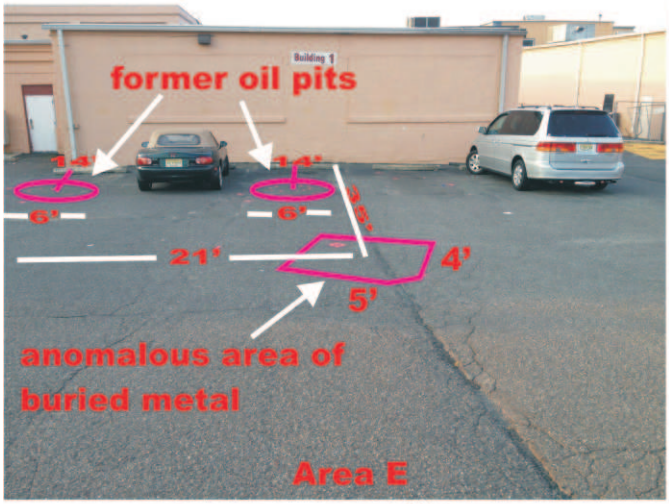
EnviroPhysics, Inc. 546 Keefe Rd. Lawrenceville, NJ 08648 609 844-9844 Fax 844-9845

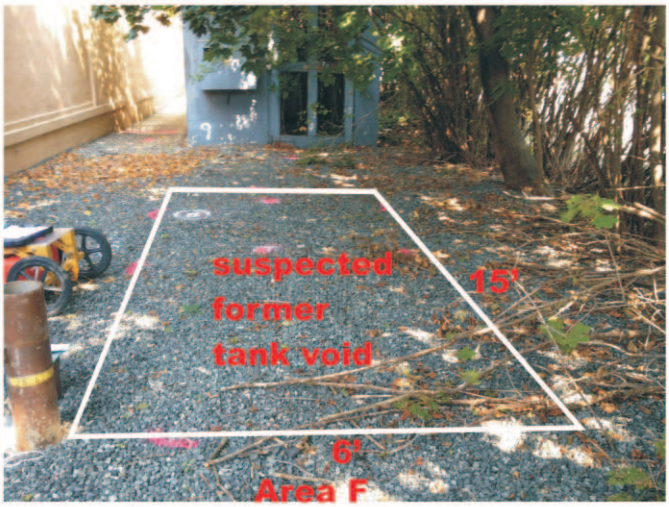

excavated
area
reinforced concrete
Area A

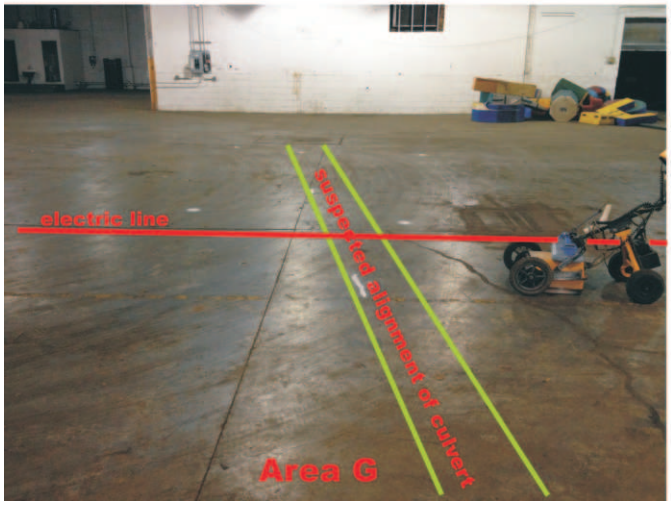

tracks
proposed
soil
borings
Area A

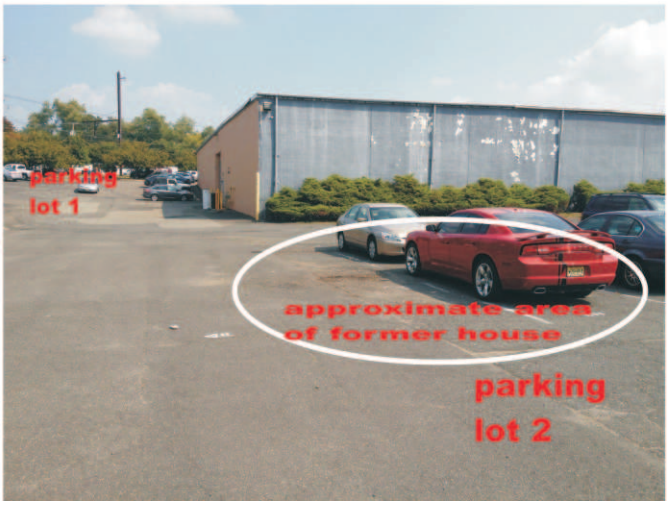

20'
8'
20'
suspected
decommissioned
tanks
10'
Area C


approximate culvert alignment
Area D


Building 1
former oil pits
14'
14'
6'
6'
21'
4'
5'
anomalous area of
buried metal
Area E


suspected
former
tank void
15'
6'
Area F


electric line
suspected alignment of culvert
Area G


parking
lot 1
approximate area
of former house
parking
lot 2

Preliminary Assessment / Site Investigation Report

Property Known As:

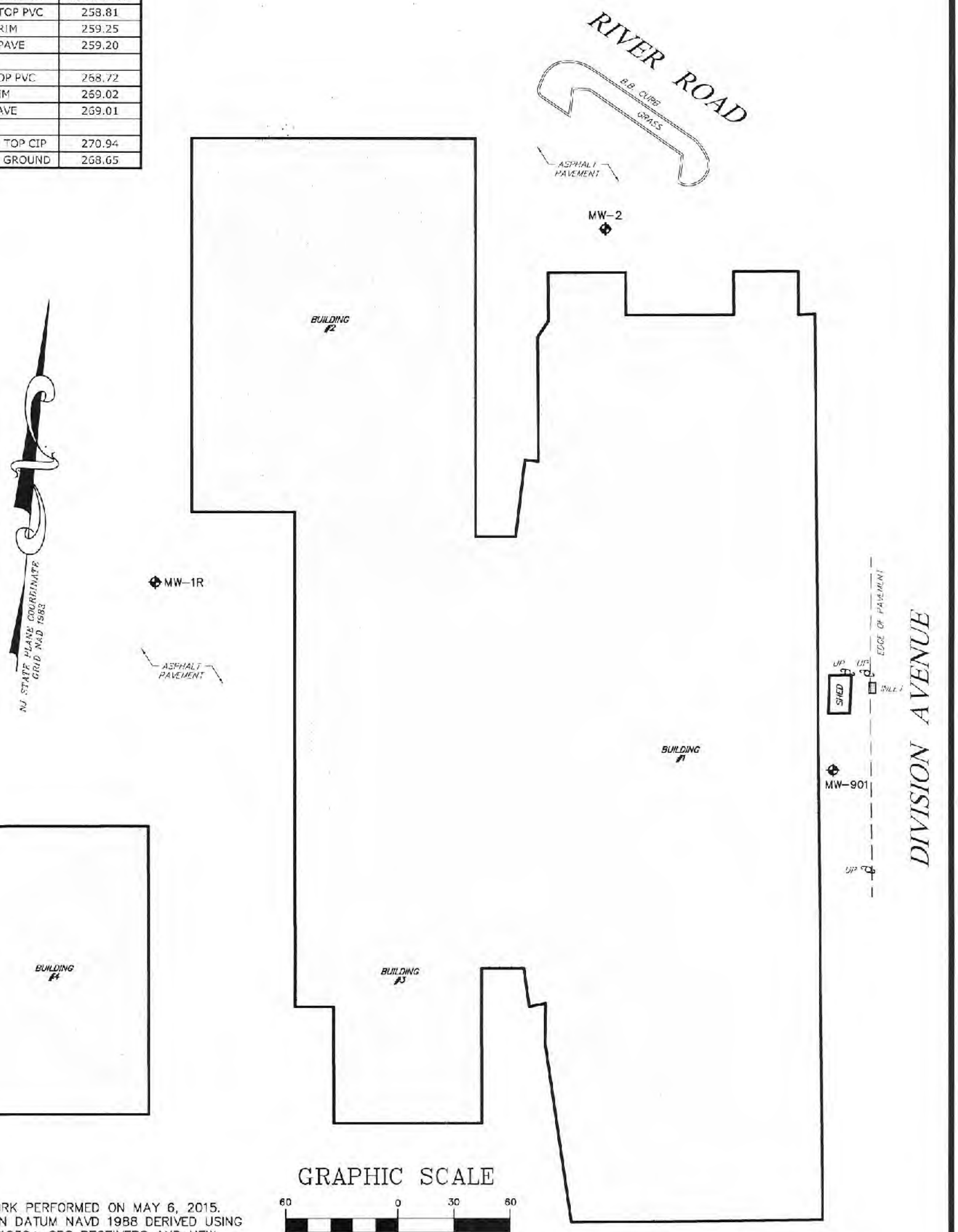
50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 13

Monitoring Well Logs

DESIGNATION	ELEVATION
MW-1R TOP PVC	258.81
MW-1R RIM	259.25
MW-1R PAVE	259.20
MW-2 TOP PVC	268.72
MW-2 RIM	269.02
MW-2 PAVE	269.01
MW-901 TOP CIP	270.94
MW-901 GROUND	268.65



NOTES:

1. FIELD WORK PERFORMED ON MAY 6, 2015.
2. ELEVATION DATUM NAVD 1988 DERIVED USING LEICA GX1230+ GPS RECEIVERS AND NEW JERSEY SMARTNET NETWORK. CORS STATION: NJTP PISCATAWAY CORS ARP ELEV=109.56' (NAVD 1988 GEOID 12A)

GRAPHIC SCALE

60 0 30 60

(IN FEET)

1 inch = 60 ft.

DPK CONSULTING

147 Union Ave, Ste. 1C, Middlesex, NJ 08846 P: 732-764-0100 F: 732-764-0990

NEW JERSEY CERTIFICATE OF AUTHORIZATION NO. 24GA28042200

5.18.15
date

Steven D. Parent
Professional Land Surveyor
N.J. Lic: 24GS03626900
SPARENT@DPKCONSULTING.NET

date

James J. Heiser
Professional Land Surveyor
N.J. Lic: 24GS04331100 N.Y. Lic: 050932-1
JHEISER@DPKCONSULTING.NET

MONITORING WELL LOCATION MAP

FOR:

ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES, LLC

SITE:

50 DIVISION AVENUE

MILLINGTON, NEW JERSEY

Scale	Dr.	Chk.	Date	
1"=60'	J.L.A.S.	S.D.P.	05/18/2015	
Job No.: 15-6756		Drawing File: 15-6756MW00		

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name:

List all AKAs:

Street Address: 50 Division Ave

Municipality: Township of Longhill (Township, Borough or City)

County: Morris Zip Code: 07946

Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block# Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-2
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40° 40' 22.55" Longitude: West 74° 31' 24.69"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 670046 East 485600
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 268.72
   Elevation Top of Outer casing: 269.02 Elevation of ground: 269.01 (PAVE)
   Check one: ☒ NAVD 88 ☐ NVGD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   BENCHMARK: NJTP PISCATAWAY CORS ARP
   ELEV.= 109.56' (NAVD88 DATUM)
7. Significant observations and notes:

SECTION D. LAND SURVEYOR'S CERTIFICATION

SEAL

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Professional Land Surveyor's Signature: Date 5/12/2015

Surveyor's Name: Steven D. Parent License Number: 24GS03626900

Firm Name: DPK Consulting, LLC Certificate of Authorization #: 24GA28042200

Mailing Address 147 Union Avenue - Suite 1C

City/Town: Middlesex State New Jersey Zip Code: 08846

Phone Number 732.764.0100 Ext.: Fax: 732.764.0990

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 208322
Well #: MW-1R
Start Date: 04/02/15

Site: 50 Division
Well Permit #: E201502964
Completion Date: 04/06/15
Geologist: T. Both
Drilling Co.: Advanced
Driller/Helper: Joel/Dave
Drill Rig: Failing SS25
Drilling Method: HAS
Type of Bit:

WELL LOCATION SKETCH (N.T.S)

Sampler Type: Split Spoon
Solid Riser: 0-45 ft. 2 in. sch. 40
G.W. Encountered: 30 ft.
G.W. Stabilized: 20.30 ft
Well Depth: 50 ft.
Screen Interval/Screen Type: 45-50ft.2 in.sch.40(.010 in.slot)
Depth to Rim: 4 1/2 in.
Borehole Diameter: 6.5 in.
Well Diameter: 2 in.
Grout: 0.5-42 ft.
Sand Pack/Open Borehole: 42-50 ft. No.1

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)	WELL CONSTRUCTION DIAGRAM (N.T.S)
		0	NA	NA		3" asphalt		
1		0	NA	NA		3-12' subase	1	
		0	NA	NA		Soft Dig		
2		0	NA	NA			2	
		0	NA	NA				
3		0	NA	NA			3	
		0	NA	NA				
4		0	NA	NA			4	
		0	NA	NA				
5		0	NA	NA			5	
		0	61	6	SP	Dark Brown fine SAND, some subangular Gravel, loose, dry		
6		0	15				6	
		0	9					
7		0	16				7	
		0	17	16	GP	Gray subangular GRAVEL, loose, dry		
8		0	12				8	
		0	20					
9		0	27		ML	Brown SILT, tace very fine Sand, loose, dry	9	
		0	18	18	ML	Reddish Brown SILT, stiff, dry		
10		0	23				10	
		0	32					
11		0	45				11	
		0	10	10	SP	Gray Brown medium SAND, little Silt, loose, moist		
12		0	100/4		SAP	Top of Saprolite	12	
		0	-			Saprolite-Redish Brown SILT, stiff, dry		
13		0	-				13	
		0	26	16				
14		0	34				14	
		0	100-4					
15		0	-				15	
		0	100-4	4				
16		0	-				16	
		0	-					
17		0	-				17	
		0	100/5.5	10				
18		0	-				18	
		0	-					
19		0	-				19	
		0	100/6	6				
20	TWP	0	-				20	
		0	-					
21		0	-				21	
		0	79	13		Saprolite-Redish Brown SILT, stiff, dry, slightly micacious		
22		0	100/3				22	
		0	-					
23		0	-				23	
		0						
24		0					24	
		0	57	7		Saprolite-Redish Brown to Brown SILT, little to trace fine Sand,		
		0	100/4			medium stiff, wet		

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 208322
Well #: MW-1R
Start Date: 04/02/15

Site: 50 Division
Well Permit #: E201502964
Completion Date: 04/06/15
Geologist: T. Both
Drilling Co.: Advanced
Driller/Helper: Joel/Dave
Drill Rig: Failing SS25
Drilling Method: HAS
Type of Bit:

WELL LOCATION SKETCH (N.T.S)

Sampler Type: Split Spoon
Solid Riser: 0-45 ft. 2 in. sch. 40
G.W. Encountered: 30 ft.
G.W. Stabilized: 20.30 ft.
Well Depth: 50 ft.
Screen Interval/Screen Type: 45-50ft.2 in.sch.40(.010 in.slot)
Depth to Rim: 4 1/2 in.
Borehole Diameter: 6.5 in.
Well Diameter: 2 in.
Grout: 0.5-42 ft.
Sand Pack/Open Borehole: 42-50 ft. No.1

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
26		0	-			
		0	-			
		0	21	12		Saprolite-Brown to Redish Brown SILT, stiff, wet, micacious
27		0	100/6			
		0	-			
28		0	-			
		0	100/6	6		Saprolite-Redish Brown SILT, little medium Sand, very stiff, dry to
29		0	-			moist
		0	-			
30	TWP	0	-			
		0	100/5	6		Saprolite-Redish Brown SILT, medium stiff, saturated
31		0	-			
		0	-			
32		0	-			
		-	100/5.5	0		No Recovery
33		-	-			
		-	-			
34		-	-			Auger Refusal
	1027	0	Core	1.6'	WBR	Top of Weathered Bedrock
35		0	RQD	64%		Redish Brown very fine grained Shale, thinly bedded (1/16"),
		0	15.6%			micacious, slightly weather fractures approximately 5 degrees,
36		0	0.39'			numerous fragments, evidence of grinding
	1042	0				
37	1218	0	RQD	2.4'		Redish Brown very fine grained Shale, thinly bedded (1/16"),
		0	27.2%	96%		Quartz inclusion, slightly weathered fractures approximately 5
38		0	0.68'			degrees, numerous fragments
		0				
39	1229	0				
	1250	0	Rrqd	3.6'		Redish Brown very fine grained Shale, thinly bedded (1/16")
40		0	20.2%	72%		slightly weathered fractures ranging from 1 to 3 degrees,
		0	1.01'			numerous fragments
41		0				
		0				
42		0				
		0				
43		0				
		0				
44	1314	0				
	1338	0	RQD	5'		Gray very fine grained Shale, thinly bedded (1/16")
45		0	29.6%	100%		slightly weathered fractures renging from 2 to 5 degrees,
		0	1.48'			some Redish Brown Shale interbeded, some fragments
46		0				
		0				
47		0				
		0				
48		0				
		0				
49	1412	0				
						End of Borehole

DEPTH (FT.)	WELL CONSTRUCTION DIAGRAM (N.T.S)
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 208322
Well #: MW-2
Start Date: 04/06/15

Site: 50 Division
Well Permit #: E201502963
Completion Date: 04/07/15
Geologist: T.Both
Drilling Co.: Advanced
Driller/Helper: Joel/Dave
Drill Rig: Failing SS25
Drilling Method: HAS
Type of Bit:

WELL LOCATION SKETCH (N.T.S)

Sampler Type: Split Spoon
Solid Riser: 0-9 ft. 2 in. sch. 40
G.W. Encountered: 23 ft.
G.W. Stabilized: 5.84 ft.
Well Depth: 29 ft.
Screen Interval/Screen Type: 9-29ft.2in sch.40 (.010in. slot)
Depth to Rim: 3 in.
Borehole Diameter: 6.5 in.
Well Diameter: 2 in.
Grout: 0.5-6 ft.
Sand Pack/Open Borehole: 6-29 ft. No.1

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
		0	NA	NA		3" asphalt	
1		0	NA	NA		3-12" subase	1
		0	NA	NA		soft dig	
2		0	NA	NA			2
		0	NA	NA			
3		0	NA	NA			3
		0	NA	NA			
4		0	NA	NA			4
		0	NA	NA			
5		0	NA	NA			5
		0	10	20.5	ML	Redish Brown SILT, trace very fine angular Gravel,	
6		0	14			medium loose, dry	6
		0	15				
7		0	24				7
		0	45	9.5	ML	Redish Brown SILT, some to little Clay, medium stiff, saturated	
8		0	100/3			(perched zoned)	8
		0	-				
9		0	-				9
		0	51	8.5	SAP	Top of Saprolite	
10		0	100/5			Saprolite-Redish Brown coarse angular to subangular GRAVEL,	10
		0	-			some Silt, stiff, dry, slight petroleum odor, stained	
11		0	-				11
		0	63	8.5		Saprolite-Redish Brown medium to coarse angular to subangular	
12		0	100/4			GRAVEL, little Silt, stiff, dry, slight staining, no odor	12
		0	-				
13		0	-				13
		0	56	7			
14		0	100/4				14
		0	-				
15		0	-				15
		0	100/6	5			
16		0	-				16
		0	-				
17		0	-				17
		0	100/5	4			
18		0	-				18
		0	-				
19		0	-				19
		0	50/0	0		No Recovery	
20		0	-				20
		0	-				
21		0	-				21
		NA	50/0	0		No Recovery	
22		NA	-				22
		NA	-				
23		NA	-				23
		0	100/1	1		Saprolite-Redish Brown SILT, little medium to coarse subangular	
24		0	-			Gravel, stiff, saturated	24
		0	-				
		0	-				

WELL CONSTRUCTION DIAGRAM (N.T.S)

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #:	208322
Well #:	MW-2
Start Date:	04/06/15

Site:	50 Division
Well Permit #:	E201502963
Completion Date:	04/07/15
Geologist:	T.Both
Drilling Co.:	Advanced
Driller/Helper:	Joel/Dave
Drill Rig:	Failing SS25
Drilling Method:	HAS
Type of Bit:	

WELL LOCATION SKETCH (N.T.S)

Sampler Type:	Split Spoon			**Solid Riser:**	0-9 ft. 2 in. sch. 40
G.W. Encountered:	23 ft.	**G.W. Stabilized:**	5.84 ft.	**Well Depth:**	29 ft.
Depth to Rim:	3 in.	**Borehole Diameter:**	6.5 in.	**Well Diameter:**	2 in.
Screen Interval/Screen Type:	9-29ft.2in sch.40 (.010in. slot)				
Grout:	0.5-6 ft.	**Sand Pack/Open Borehole:**	6-29 ft. No.1		

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
		NA	50/0	0		No Recovery
26		NA	-			
		NA	-			
27		NA	-			
		NA	50/0	0		No Recovery
28		NA	-			
		NA	-			
29		NA	-			End of Borehole
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						

WELL CONSTRUCTION DIAGRAM (N.T.S)

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

700

MONITORING WELL RECORD

Well Permit No. 25 - 45386 - 25 - 23 - 576

Atlas Sheet Coordinates _____ : _____

OWNER IDENTIFICATION - Owner TIFA LIMITED
Address 50 DIVISION AVE.
City MILLINGTON State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-1
County MORRIS Municipality PASSAIC TWP. Lot No. 1 Block No. 119
Address 50 Division Ave

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 7/14/94
Regulatory Program Requiring Well UST Case I.D. # 93-01-07-1125
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Rust Tele. # 201-299-9001

WELL CONSTRUCTION

Total depth drilled 29.5 ft.
Well finished to 29.5 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☐ above grade ☒ flush mounted
If finished above grade, casing height (stick up) above land surface _____ ft.
Was steel protective casing installed? ☐ Yes ☒ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	.5	9.5	4	Sch 40 PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	9.5	29.5	4	Sch 40 PVC .020
Tail Piece				
Gravel Pack	5	29.5		Morie #1
Annular Seal/Grout	0	5		Portland
Method of Grouting	Tremie			

Static water level after drilling 3 ft.
Water level was measured using Tape
Well was developed for N/A hours at _____ gpm
Method of development N/A
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity _____ gpm
Pump type: _____
Drilling Method Auger/Air
Drilling Fluid _____ Type of Rig B-80
Name of Driller Pat Pennell - Jeff Marchesi
Health and Safety Plan submitted? ☒ Yes ☐ No
Level of Protection used on site (circle one) None (D) C B A
N.J. License No. J-1512
Name of Drilling Company SUMMIT WELL DRILLING

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

See attached

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Jeff Marchesi Date 7-19-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

Summit DRILLING CO., INC.
ENVIRONMENTAL SPECIALISTS

489 Union Avenue
Bridgewater, NJ 08807
Telephone: (908) 722-4266
Toll Free: (800) 242-6648
FAX: (908) 356-1009

WELL LOG

WELL: MW1 DATE DRILLED: 7/14/1994 COORD #: 25.23.576 PERMIT #: 25-45386 COUNTY:
SITE: Tifa Limited, 50 Division Avenue, , Millington, NJ 07946 XSTREET:
OWNER: Tifa Limited, 50 Division Avenue, , Millington, NJ 07946 USE: Monitoring

INNER CASING:	PVC	OUTER CASING:		SCREEN TYPE:	PVC	DRILLING METHOD:	Auger/Air
DIAMETER:	4"	DIAMETER:		DIAMETER:	4"	SAMPLING METHOD:	N/A
LENGTH:	9'	LENGTH:		LENGTH:	20'	HOLE DIAMETER:	8"
				SLOT SIZE:	.020	TOTAL DEPTH:	29.5'

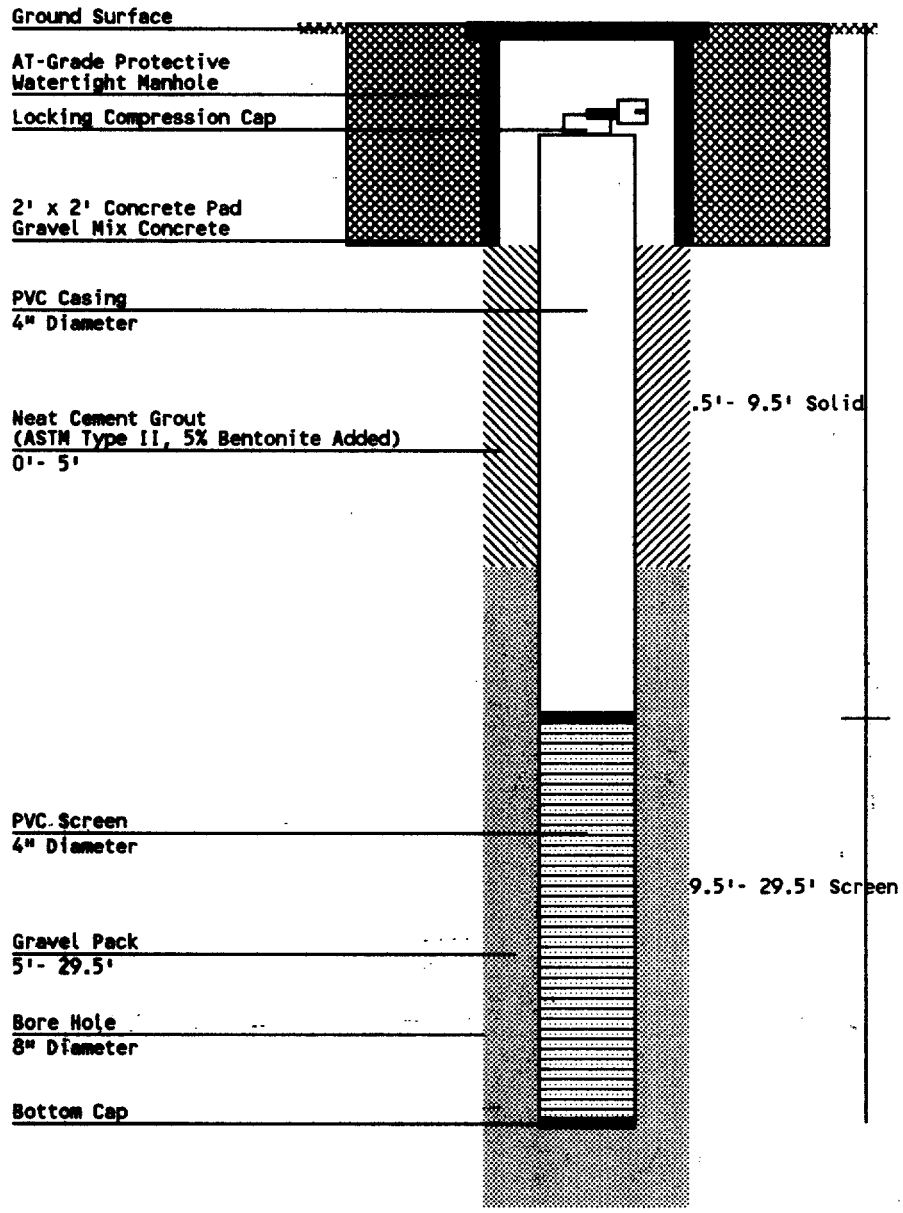
SET WELL: 29.5' GAL PER MIN: OPEN HOLE:
GRAVEL PK SZ: Morie #1 STAT H2O LVL: 13' CASING SEAL: Portland
DRILLER: Pat Pennell/Jeff Marchesi DEVELOPMENT METHOD: None DEVELOPMENT TIME:
SURFACE COMPLETION: M GEOLOGIC FORMATION:

DEPTH BELOW SURFACE FROM - TO | BLOWS PER 6" ON SAMPLER

-

REMARKS / SOILS IDENTIFICATION

0' - 6' Asbestos fill.
6' - 11' Weathered shale.
11' - 29'6" Hard shale.



New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name:

List all AKAs:

Street Address: 50 Division Ave

Municipality: Township of Longhill (Township, Borough or City)

County: Morris Zip Code: 07946

Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block# Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-1R
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40°40' 20.47" Longitude: West 74° 31' 27.59"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 669835 East 485376
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 258.81
   Elevation Top of Outer casing: 259.25 Elevation of ground: 259.20 (PAVE)
   Check one: ☒ NAVD 88 ☐ NVGD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   BENCHMARK: NJTP PISCATAWAY CORS ARP
   ELEV.= 109.56' (NAVD88 DATUM)
7. Significant observations and notes:

SECTION D. LAND SURVEYOR'S CERTIFICATION

SEAL

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Professional Land Surveyor's Signature: Date 5/12/2015

Surveyor's Name: Steven D. Parent License Number: 24GS03626900

Firm Name: DPK Consulting, LLC Certificate of Authorization #: 24GA28042200

Mailing Address 147 Union Avenue - Suite 1C

City/Town: Middlesex State New Jersey Zip Code: 08846

Phone Number 732.764.0100 Ext.: Fax: 732.764.0990

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name:

List all AKAs:

Street Address: 50 Division Ave

Municipality: Township of Longhill (Township, Borough or City)

County: Morris Zip Code: 07946

Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block# Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-901
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40°40' 19.79" Longitude: West 74° 31' 22.80"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 669766 East 485746
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 270.94 (TOP CIP)
   Elevation Top of Outer casing: N/A Elevation of ground: 268.65 (GROUND)
   Check one: ☒ NAVD 88 ☐ NVGD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   BENCHMARK: NJTP PISCATAWAY CORS ARP
   ELEV = 109.56' (NAVD88 DATUM)
7. Significant observations and notes:

SECTION D. LAND SURVEYOR'S CERTIFICATION

SEAL

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Professional Land Surveyor's Signature: Date 5/26/2015

Surveyor's Name: Steven D. Parent License Number: 24GS03626900

Firm Name: DPK Consulting, LLC Certificate of Authorization #: 24GA28042200

Mailing Address 147 Union Avenue - Suite 1C

City/Town: Middlesex State New Jersey Zip Code: 08846

Phone Number 732.764.0100 Ext.: Fax: 732.764.0990

New Jersey State Department of Environmental Protection
Bureau of Water Allocation and Well Permitting
Mail Code 401-04Q PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201502964

WELL PERMIT

New Well

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: SCOTT ALBERALLA, JOURNEYMAN LICENSE # 0001087

Permit Issued to: ADVANCED DRILLING INC

Company Address: 3 COLT RD PITTSTOWN, NJ 08867

PROPERTY OWNER

Name: TIFA REALTY INC.

Organization: TIFA REALTY INC.

Address: 250 PEHLE AVE

City: Saddle Brook State: New Jersey Zip Code: 07663

PROPOSED WELL LOCATION

Facility Name: 50 Division Ave

Address: 50 Division Ave

County: Morris Municipality: Long Hill Twp Lot: 1 Block: 12301

Easting (X): 485394 Northing (Y): 669831
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-1R

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in.): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft.): 60

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Air Rotary/HSA

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Terry D. Pilawski

Approval Date: April 1, 2015
Expiration Date: March 31, 2016

Approved by the authority of:
Bob Martin
Commissioner

Terry Pilawski, Chief
Bureau of Water Allocation and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Allocation and Wells
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201502964

WELL PERMIT

%%:activity_class_well%%

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1]
A well record must be submitted by the well driller to the Bureau of Water Systems and Well Permitting. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the well record shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Record: within ninety (90) days after the well is completed.[N.J.A.C. 7:9D-1]
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit. [N.J.A.C. 7:9D-1]
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting. [N.J.A.C. 7:9D-1]
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval. [N.J.A.C. 7:9D-1]
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1.1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed. [N.J.A.C. 7:9D-1.7((a))1i]
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions [N.J.A.C. 7:9D-1]
In the event that this well is not constructed the well driller shall notify the Bureau of Water Systems and Well Permitting of the permit cancellation. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the Cancellation notification shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Permit Cancellation : by the expiration date of this permit.[N.J.A.C. 7:9D-1]
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:9D-1]
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application. [N.J.A.C. 7:9D-1]
This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1]
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1]
This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

New Jersey State Department of Environmental Protection
Bureau of Water Allocation and Well Permitting
Mail Code 401-04Q PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201502964

MONITORING WELL RECORD

PROPERTY OWNER: TIFA REALTY INC.

Company/Organization: TIFA REALTY INC.

Address: 250 PEHLE AVE Saddle Brook, New Jersey 07663

WELL LOCATION: 50 Division Ave

Address: 50 Division Ave

County: Morris Municipality: Long Hill Twp Lot: 1 Block: 12301

Easting (X): 485376 Northing (Y): 669835
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: April 2, 2015

DATE WELL COMPLETED: April 2, 2015

WELL USE: MONITORING

Other Use(s):

Local ID: MW-1R

WELL CONSTRUCTION

Total Depth Drilled (ft.): 50 Finished Well Depth (ft.): 50 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	50	6		
Casing	0	45	2	PVC	sch 40
Screen	45	50	2	PVC	.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	41	6	2	25	470	40
Gravel Pack	41	43	6	2	00 sand		
Gravel Pack	43	50	6	2	01 sand		

Grouting Method: Pressure method (Tremie Pipe) Drilling Method: Hollow Stem Augers

ADDITIONAL INFORMATION

Protective Casing: Yes
Static Water Level: 35 ft. below land surface
Water Level Measure Tool: tape
Well Development Period: 1 hrs.
Method of Development: pump
Pump Type:

Pump Capacity: _ gpm
Total Design Head: _ ft.
Drilling Fluid:
Drill Rig: ss-25
Health and Safety Plan Submitted? No

ATTACHMENTS:

GEOLOGIC LOG
0 - .25: black OT - Other asphalt
.25 - 5: brown GM - Silty gravels, gravel-sand-silt mixtures
5 - 11: brown SM - Silty sands, sand-silt mixtures
11 - 50: red-brown WR - Weathered Rock shale

ADDITIONAL INFORMATION:

Driller of Record: Joel Meixsell, MONITORING LICENSE # 602244 Company: ADVANCED DRILLING INC

New Jersey State Department of Environmental Protection
Bureau of Water Allocation and Well Permitting
Mail Code 401-04Q PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201502963

WELL PERMIT

New Well

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: SCOTT ALBERALLA, JOURNEYMAN LICENSE # 0001087

Permit Issued to: ADVANCED DRILLING INC

Company Address: 3 COLT RD PITTSTOWN, NJ 08867

PROPERTY OWNER

Name: TIFA REALTY INC.

Organization: TIFA REALTY INC.

Address: 250 PEHLE AVE

City: Saddle Brook State: New Jersey Zip Code: 07663

PROPOSED WELL LOCATION

Facility Name: 50 Division Ave

Address: 50 Division Ave

County: Morris Municipality: Long Hill Twp Lot: 1 Block: 12301

Easting (X): 485590 Northing (Y): 670039
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-2

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in.): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft.): 20

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Terry D. Pilawski

Approval Date: April 1, 2015
Expiration Date: March 31, 2016

Approved by the authority of:
Bob Martin
Commissioner

Terry Pilawski, Chief
Bureau of Water Allocation and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Allocation and Wells
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201502963

WELL PERMIT

%%:activity_class_well%%

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1]
A well record must be submitted by the well driller to the Bureau of Water Systems and Well Permitting. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the well record shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Record: within ninety (90) days after the well is completed.[N.J.A.C. 7:9D-1]
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit. [N.J.A.C. 7:9D-1]
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting. [N.J.A.C. 7:9D-1]
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval. [N.J.A.C. 7:9D-1]
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1.1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed. [N.J.A.C. 7:9D-1.7((a))1i]
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The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:9D-1]
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application. [N.J.A.C. 7:9D-1]
This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1]
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1]
This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

New Jersey State Department of Environmental Protection
Bureau of Water Allocation and Well Permitting
Mail Code 401-04Q PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201502963

MONITORING WELL RECORD

PROPERTY OWNER: TIFA REALTY INC.

Company/Organization: TIFA REALTY INC.

Address: 250 PEHLE AVE Saddle Brook, New Jersey 07663

WELL LOCATION: 50 Division Ave

Address: 50 Division Ave

County: Morris Municipality: Long Hill Twp Lot: 1 Block: 12301

Easting (X): 485600 Northing (Y): 670046
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: April 6, 2015

DATE WELL COMPLETED: April 7, 2015

WELL USE: MONITORING

Other Use(s):

Local ID: MW-2

WELL CONSTRUCTION

Total Depth Drilled (ft.): 29 Finished Well Depth (ft.): 29 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	29	6		
Casing	0	9	2	PVC	sch 40
Screen	9	29	2	PVC	.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	6	6	2	5	94	8
Gravel Pack	6	7	6	2	00 sand		
Gravel Pack	7	29	6	2	01 sand		

Grouting Method: Pressure method (Tremie Pipe) Drilling Method: Hollow Stem Augers

ADDITIONAL INFORMATION

Protective Casing: Yes
Static Water Level: 25 ft. below land surface
Water Level Measure Tool: tape
Well Development Period: 1 hrs.
Method of Development: pump
Pump Type:

Pump Capacity: _ gpm
Total Design Head: _ ft.
Drilling Fluid:
Drill Rig: ss-25
Health and Safety Plan Submitted? No

ATTACHMENTS:

GEOLOGIC LOG
0 - .25: black OT - Other asphalt
.25 - 7: red-brown GM - Silty gravels, gravel-sand-silt mixtures
7 - 29: red-brown WR - Weathered Rock shale

ADDITIONAL INFORMATION:

Driller of Record: Joel Meixsell, MONITORING LICENSE # 602244 Company: ADVANCED DRILLING INC

DWR-020
8/94

New Jersey Department of Environmental Protection
Water Supply Element — Bureau of Water Allocation

WELL ABANDONMENT REPORT

MAIL TO. **Bureau of Water Allocation**
CN 426
Trenton, NJ 08625-0426

30/71

WELL PERMIT # 25-45386
of well sealed

DATE WELL SEALED 2/7/95

PROPERTY OWNER TIFA Limited

ADDRESS 50 Division Ave. - Millington, N.J.

WELL LOCATION Same Passaic Twp. - Morris
Street & No , Township, County

MW1 | 1 | 119 | 74°-32' | 40°-42'
Well No | Lot & Block No | Longitude & Latitude
(N J Grid # may be substituted for longitude & latitude)

USE OF WELL PRIOR TO ABANDONMENT Monitor

REASON FOR ABANDONMENT No longer in use

WAS A NEW WELL DRILLED? ☐ YES ☑ NO PERMIT # OF NEW WELL _____

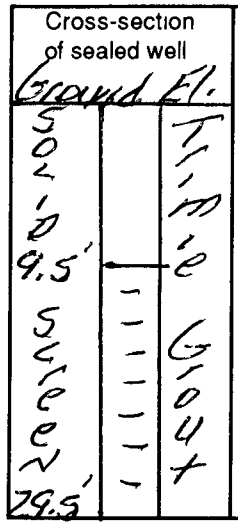
TOTAL DEPTH OF WELL 29.5'
DIAMETER 4"
CASING LENGTH 9.5'
SCREEN LENGTH 20'
NUMBER OF CASINGS 1

MATERIAL USED TO SEAL WELL

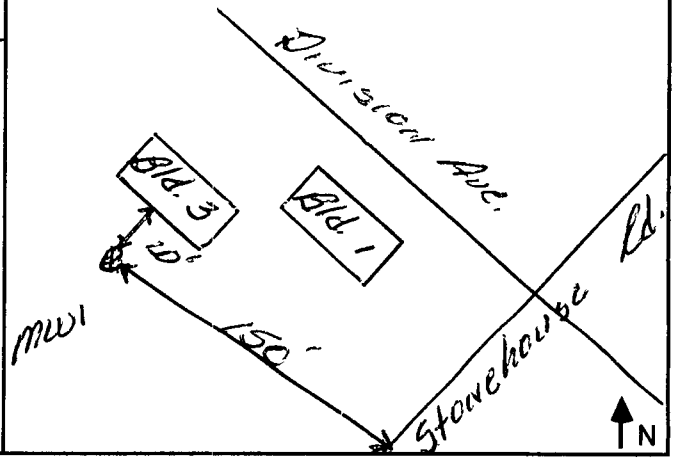
21 Gallons of Water
292 Lbs of Cement
15 Lbs of Bentonite
_____ Lbs of Sand/Gravel
(none if well is contaminated)

FORMATION ☐ Consolidated ☑ Unconsolidated

Cross-section of sealed well



Draw a sketch showing distance and relations of well site to nearest roads, buildings, etc



To permit adequate grouting, the casing should remain in place, but ungrouted liner pipes or any other obstructions must be removed Pressure grouting is the only accepted method

WAS CASING LEFT IN PLACE? ☑ YES ☐ NO CASING MATERIAL PVC

WERE OTHER OBSTRUCTIONS LEFT IN WELL? ☐ YES ☑ NO WHAT WERE THE OBSTRUCTIONS Lock cap

IF "YES", AUTHORIZATION GRANTED BY _____ (NJDEP Official) ON _____ (Date)

I certify that this well was sealed in accordance with N J A C 7:9-9 1 et seq

Donald L. Grahamer | 489 Union Ave-Bridgewater | 2-8-95
Name of NJ Certified Well Sealer Performing Work (Print or Type) | Address | Mailing Date

Donald L. Grahamer | 1213
Signature of NJ Certified Well Sealer Performing Work | License #

COPIES *White - Water Allocation* *Yellow - Owner* *Pink - Health Dept* *Goldenrod - Driller*

SERIAL # 47367

DWR-133M (10/93)

Mail to

NJDEPE
Bureau Water Allocation
CN426
Trenton, NJ 08625

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
TRENTON, NJ

MONITORING WELL PERMIT

VALID ONLY AFTER APPROVAL BY THE D.E.P.E.

30 Permit No. 2545386

COORD # : 25.23576

Owner TIFA Limited
Address 50 Division Ave.
Millington, NJ 07946
Name of Facility -SAME-
Address

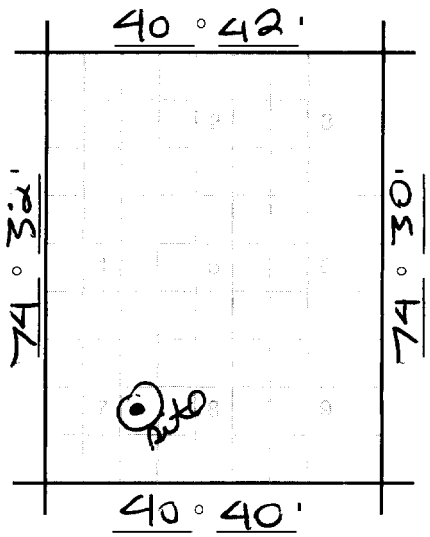
Driller Summit Drilling Co. Inc.
Address 489 Union Ave.
Bridgewater, NJ 08807

Diameter of Well(s)	4 Inches	Proposed Depth of Well(s)	45 Feet
# of Wells Applied for (max. 10)	1	Will pumping equipment be installed? YES ☐ NO ☑	
Type of Well (see reverse)	Monitoring	If Yes, give pump capacity	N/A GPM

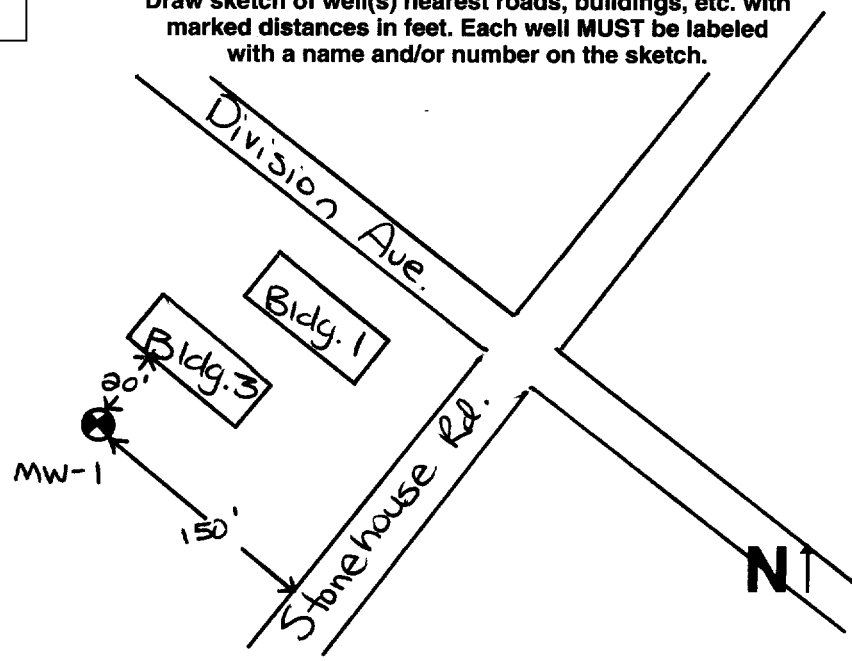
LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
1	119	~~Passaic Twp.~~ Millington	Morris

State Atlas Map No. 25



Draw sketch of well(s) nearest roads, buildings, etc. with marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.



FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- ☐ Spill Site
- ☐ ISRA Site
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☑ Underground Storage Tank Site
- ☐ Operational Ground Water Permit Site
- ☐ Pretreatment and Residuals Site
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain)

CASE I.D. Number
93-01-07-1125

This Space for Approval Stamp

WELL PERMIT APPROVED
N.J.D.E.P.
JUL 6 1994
BUREAU OF WATER ALLOCATION

FOR D.E.P.E. USE

- ☐ Issuance of this permit is subject to the conditions attached. (see next page)
- ☑ For monitoring purposes only
- ☑ The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.
- ☐

SEE REVERSE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT.

In compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date 7-1-94 Signature of Driller Donald Grahamer Jr. License # M1212

Rust Signature of Owner Jeff Minchak (BR)

COPIES: Water Allocation — White and Pink Health Dept. — Yellow Owner — Blue Driller — White

WELPMT 099 1950

DWR 138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No 25 28291 6
Atlas Sheet Coordinates 25 23 57A

OWNER IDENTIFICATION Owner Telfa Limited
Address Telfa Square
City Millington State N.J. Zip Code 07946

WELL LOCATION If not the same as owner please give address Owner's Well No MW 901 12301
County Morris Municipality Millington Long Hill Lot No 1, 9.01 Block No 19.226
Address National Gypsum Co. 50 Division Ave

TYPE OF WELL (as per Well Permit Categories) Monitoring Date well completed 8/11/8[illegible]6
Regulatory Program Requiring Well _____ Case I D # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele # _____

WELL CONSTRUCTION

Total depth drilled 50 ft
Well finished to 50 ft
Borehole diameter
Top 10 in
Bottom 6 in
Well was finished ☒ above grade ☐ flush mounted
If finished above grade casing height (stick up) above land surface 2' ft
Was steel protective casing installed? ☒ Yes ☐ No

	Depth to Top (ft) [From land surface]	Depth to Bottom (ft) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	—	NA	—	
Outer Casing (Not Protective Casing)	0	13'	6"	Stainless steel
Screen (Note slot size)	13	50'	6"	open rock hole
Tail Piece	—	NA	—	
Gravel Pack	—	NA	—	
Annular Seal/Grout	0	13'		cement/bentonite
Method of Grouting	Tremie			

Static water level after drilling NA ft
Water level was measured using NA
Well was developed for NA hours at NA gpm
Method of development NA
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type NA
Drilling Method H.S.A./Air Rotary
Drilling Fluid None Type of Rig Drilltech
Name of Driller Thomas Brown
Health and Safety Plan submitted? ☒ Yes ☐ No
Level of Protection used on site (circle one) None D (C) B A
N J License No 51311
Name of Drilling Company Empire Soils Inv. Inc.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached)

0'-3' yellow silty clay
3'-4' Red/brown silty clay weathered siltstone
4'-50' Bedrock siltstone, shale

I certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable State rules and regulations

Driller's Signature Thomas Brown Date 11-17-93

COPIES White & Green DEPE Canary Driller Pink Owner Goldenrod Health Dept

DWR 138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No 25 28292 6
Atlas Sheet Coordinates 25 23 57A

OWNER IDENTIFICATION Owner Telfa Limited
Address Telfa Square
City Millington State N.J. Zip Code 07946

WELL LOCATION If not the same as owner please give address Owners Well No MW-902 12301
County Morris Municipality ~~Millington~~ Long Hill Lot No 1, 7.01 Block No ~~49.226~~
Address National Gypsum Co. 50 Division Ave

TYPE OF WELL (as per Well Permit Categories) Monitoring Date well completed 8/11/896
Regulatory Program Requiring Well _____ Case I D # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele # _____

WELL CONSTRUCTION

Total depth drilled 33 ft
Well finished to 33 ft
Borehole diameter
Top 8 in
Bottom 8 in
Well was finished ☒ above grade ☐ flush mounted
If finished above grade casing height (stick up) above land surface 2 ft
Was steel protective casing installed? ☒ Yes ☐ No

	Depth to Top (ft) [From land surface]	Depth to Bottom (ft) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	+2'	23'	4"	Stainless Sch 5
Outer Casing (Not Protective Casing)	—	NA	—	—
Screen (Note slot size)	23'	33'	4"	Stainless 10 slot
Tail Piece	—	NA	—	—
Gravel Pack	22'	33'	#1	Morrie Sand
Annular Seal/Grout	0	22'		cement/bentonite/pellets
Method of Grouting	Tremie			

Static water level after drilling 28 ft
Water level was measured using Tape
Well was developed for NA hours at NA gpm
Method of development NA
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type NA
Drilling Method H.S.A.
Drilling Fluid None Type of Rig B-61
Name of Driller Thomas Brown
Health and Safety Plan submitted? ☒ Yes ☐ No
Level of Protection used on site (circle one) None D (C) B A
N J License No 51311
Name of Drilling Company Empire Soils Inv. Inc.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached)

0'-28' DK. Brown, silty clay fill w/sand & gravel.
28'-31 Asbestos.
31'-33' weathered siltstone

I certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable State rules and regulations

Driller's Signature Thomas Brown Date 11-17-93

COPIES White & Green DEPE Canary Driller Pink Owner Goldenrod Health Dept

DWR 138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

E

MONITORING WELL RECORD

Well Permit No 25 28290 6
Atlas Sheet Coordinates 25 23 57

OWNER IDENTIFICATION Owner Telfa Limited
Address Telfa Square
City Millington State NJ. Zip Code 07946

WELL LOCATION If not the same as owner please give address Owner's Well No MW-903 12301
County Morris Municipality ~~Millington~~ Long Hill Lot No 4, 7.01 Block No ~~H9.226~~
Address National Gypsum Site 50 Division Ave

TYPE OF WELL (as per Well Permit Categories) Monitoring Date well completed 8/12/8~~8~~6
Regulatory Program Requiring Well _____ Case I D # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele # _____

WELL CONSTRUCTION

Total depth drilled 36 ft
Well finished to 36 ft
Borehole diameter
Top 8 in
Bottom 8 in
Well was finished [X] above grade [ ] flush mounted
If finished above grade casing height (stick up) above land surface 2' ft
Was steel protective casing installed? [X] Yes [ ] No

	Depth to Top (ft) [From land surface]	Depth to Bottom (ft)	Diameter (inches)	Type and Material
Inner Casing	0	26	4"	stainless sch5
Outer Casing (Not Protective Casing)	—	NA.	—	
Screen (Note slot size)	26'	36'	4"	stainless 10 slot
Tail Piece	—	NA	—	
Gravel Pack	24'	36'	#1	Morrie Sand
Annular Seal/Grout	0	24'	cement/bentonite/pellets	
Method of Grouting	Tremie			

Static water level after drilling NA ft
Water level was measured using NA
Well was developed for NA hours at NA gpm
Method of development NA
Was permanent pumping equipment installed? [ ] Yes [X] No
Pump capacity NA gpm
Pump type NA
Drilling Method H. S. A.
Drilling Fluid None Type of Rig B-61
Name of Driller Thomas Brown
Health and Safety Plan submitted? [X] Yes [ ] No
Level of Protection used on site (circle one) None D (C) B A
N J License No 51311
Name of Drilling Company Empire Soils Inv. Inc.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached)

0'-4' Red silt clay fill
4'-32' Asbestos fibers
32'-36' Red Br silt clay

I certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable State rules and regulations

Driller's Signature Thomas Brown Date 11-17-93

COPIES White & Green DEPE Canary Driller Pink Owner Goldenrod Health Dept

DWR 138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No 25 28289 6
Atlas Sheet Coordinates 25 23 57 ☐

OWNER IDENTIFICATION Owner Telfa Limited
Address Telfa Square
City Millington State N.J. Zip Code 07946

WELL LOCATION If not the same as owner please give address Owner's Well No MW-904 12301
County Morris Municipality ~~Millington~~ Long Hill Lot No 1,7.01 Block No ~~H9.226~~
Address National Gypsum Co. 50 Division Ave

TYPE OF WELL (as per Well Permit Categories) Monitoring Date well completed 8/12/8~~6~~
Regulatory Program Requiring Well _____ Case I D # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele # _____

WELL CONSTRUCTION

Total depth drilled 32.5 ft
Well finished to 32.5 ft
Borehole diameter
Top 8 in
Bottom 8 in
Well was finished ☒ above grade ☐ flush mounted
If finished above grade casing height (stick up) above land surface 2 ft
Was steel protective casing installed? ☒ Yes ☐ No

	Depth to Top (ft) [From land surface]	Depth to Bottom (ft)	Diameter (inches)	Type and Material
Inner Casing	+2	22.5'	4"	Stainless, sch5
Outer Casing (Not Protective Casing)	—	NA	—	—
Screen (Note slot size)	22.~~5~~'	32.5	4"	stainless 10 slot
Tail Piece	—	NA	—	—
Gravel Pack	20'	32.5'	#1	Morie Sand
Annular Seal/Grout	0	20'	cement/bentonite/pellets	
Method of Grouting	Tremie			

Static water level after drilling 18 ft
Water level was measured using Tape
Well was developed for NA hours at NA gpm
Method of development NA
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type NA
Drilling Method H.S.A.
Drilling Fluid None Type of Rig B-61
Name of Driller Thomas Brown
Health and Safety Plan submitted? ☒ Yes ☐ No
Level of Protection used on site (circle one) None D (C) B A
N J License No 51311
Name of Drilling Company Empire Soils Invt. Inc.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached)

0'-2' fill silt clay
2'-25' Asbestos Fibers
25'-32.5' grey clayey silt c-sand, bedrock chips

I certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable State rules and regulations

Driller's Signature Thomas Brown Date 11-17-93

COPIES White & Green DEPE Canary Driller Pink Owner Goldenrod Health Dept

DWR 138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No 25 28294 6
Atlas Sheet Coordinates 25 23 57

OWNER IDENTIFICATION Owner Telfa Limited
Address Telfa Square
City Millington State N.J. Zip Code 07946

WELL LOCATION If not the same as owner please give address Owner's Well No MW-905 12301
County Morris Municipality Millington Twp Lot No 1, 7.01 Block No 49, 226
Address National Gypsum Co. 50 Division Ave

TYPE OF WELL (as per Well Permit Categories) Monitoring Date well completed 8/15/86
Regulatory Program Requiring Well _____ Case I D # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele # _____

WELL CONSTRUCTION

Total depth drilled 6 ft
Well finished to 6 ft
Borehole diameter
Top 8 in
Bottom 8 in
Well was finished ☒ above grade ☐ flush mounted
If finished above grade casing height (stick up) above land surface 2.5 ft
Was steel protective casing installed? ☒ Yes ☐ No

	Depth to Top (ft) [From land surface]	Depth to Bottom (ft)	Diameter (inches)	Type and Material
Inner Casing	+2	1'	4"	Stainless sch 5
Outer Casing (Not Protective Casing)	—	NA	—	—
Screen (Note slot size)	1'	6'	4"	Stainless 10 slot
Tail Piece	—	NA	—	—
Gravel Pack	.5'	6'	#1	Morrie Sand
Annular Seal/Grout	0	.5'	bentonite/pellets.	
Method of Grouting	NA.			

Static water level after drilling 4 ft
Water level was measured using Tape
Well was developed for NA hours at NA gpm
Method of development NA
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type NA
Drilling Method H.S.A.
Drilling Fluid None Type of Rig Acker AD II
Name of Driller Paul J Keeney
Health and Safety Plan submitted? ☒ Yes ☐ No
Level of Protection used on site (circle one) None D (C) B A
N J License No 51349
Name of Drilling Company Empire Soils Inv. Inc.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached)

0'-6' Red Br clayey Tr. F-m sand, Tr gravel

I certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable State rules and regulations

Driller's Signature Paul J Keeney Date 11-17-93

COPIES White & Green DEPE Canary Driller Pink Owner Goldenrod Health Dept

DWR 138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

C

MONITORING WELL RECORD

Well Permit No 25 28288 576
Atlas Sheet Coordinates 25 23 ~~574~~

OWNER IDENTIFICATION Owner Telfa Limited
Address Telfa Square
City Millington State NJ Zip Code 07946

WELL LOCATION If not the same as owner please give address Owner's Well No MW-906 12301
County Morris Municipality ~~Millington~~ Long Hill Lot No 1, 201 Block No ~~49.226~~
Address National Gypsum Co. 50 Division Ave

TYPE OF WELL (as per Well Permit Categories) Monitoring Date well completed 8/15/86
Regulatory Program Requiring Well _____ Case I D # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele # _____

WELL CONSTRUCTION

Total depth drilled 18 ft
Well finished to ~~16.3'~~ ft
Borehole diameter
Top 8 in
Bottom 8 in
Well was finished ☒ above grade
☒ flush mounted
If finished above grade casing height (stick up) above land surface ~~ft~~ 2.5'
Was steel protective casing installed? ☒ Yes ☐ No
Static water level after drilling 10 ft
Water level was measured using Tape
Well was developed for NA hours at NA gpm
Method of development NA
Was permanent pumping equipment installed? ☐ Yes ☒ No
Pump capacity NA gpm
Pump type NA
Drilling Method H. S. A.
Drilling Fluid None Type of Rig B-61
Name of Driller Thomas Brown
Health and Safety Plan submitted? ☒ Yes ☐ No
Level of Protection used on site (circle one) None (D) C B A
N J License No 5 1311
Name of Drilling Company Empire Soils Inv. Inc.

	Depth to Top (ft) [From land surface]	Depth to Bottom (ft)	Diameter (inches)	Type and Material
Inner Casing	~~+2'~~	~~16.3~~	4"	Stainless sch ~~5~~
Outer Casing (Not Protective Casing)	—	NA	—	
Screen (Note slot size)	6.3'	16.3'	4"	Stainless 10 slot
Tail Piece	—	NA	—	
Gravel Pack	5'	18'	#1	Morie Sand
Annular Seal/Grout	0	5'	Cement/Bentonite pellets	
Method of Grouting	Tremie			

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached)

0-2' red Brown silt, rock frags
2-7' Fill
Redish Brown Silty Clayey Fill
7-16' Asbestos Fill
16-18' silt, shale chips dark Brown

I certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable State rules and regulations

Driller's Signature Thomas Brown Date 11-17-93

COPIES White & Green DEPE Canary Driller Pink Owner Goldenrod Health Dept

DWR 138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No 25 28293 6
Atlas Sheet Coordinates 25 23 574

OWNER IDENTIFICATION Owner Telfa Limited
Address Telfa Square
City Millington State NJ Zip Code 07946

WELL LOCATION If not the same as owner please give address Owner's Well No MW-907 12301
County Morris Municipality ~~Millington~~ Long Hill Lot No 1,701 Block No ~~49.22~~ 6
Address National Gypsum Co. 50 Division Ave

TYPE OF WELL (as per Well Permit Categories) Monitoring Date well completed 8/15/86
Regulatory Program Requiring Well ______ Case I D # ______

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ______ Tele # ______

WELL CONSTRUCTION

Total depth drilled 10 ft
Well finished to 10 ft
Borehole diameter
Top 8 in
Bottom 8 in
Well was finished [X] above grade [ ] flush mounted
If finished above grade casing height (stick up) above land surface 3 ft
Was steel protective casing installed? [X] Yes [ ] No

	Depth to Top (ft) [From land surface]	Depth to Bottom (ft) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	+2'	5'	4"	Stainless sch 5
Outer Casing (Not Protective Casing)	—	NA	—	
Screen (Note slot size)	5'	10'	4"	stainless 10 slot
Tail Piece	—	NA	—	
Gravel Pack	4'	10'	#1	Morrie Sand
Annular Seal/Grout	0	4'	cement/bentonite/pellets	
Method of Grouting	Tremie			

Static water level after drilling 6.5' ft
Water level was measured using M-Scope
Well was developed for NA hours at NA gpm
Method of development NA
Was permanent pumping equipment installed? [ ] Yes [X] No
Pump capacity NA gpm
Pump type NA
Drilling Method H. S. A.
Drilling Fluid None Type of Rig Acker AD II
Name of Driller Paul J Keeney
Health and Safety Plan submitted? [X] Yes [ ] No
Level of Protection used on site (circle one) None D (C) B A
N J License No J1349
Name of Drilling Company Empire Soils Inv. Inc.

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached)

0-10' Redish Brown silt w/ so/ F m sand Tr f. grave Shale frags

I certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable State rules and regulations

Driller's Signature [signature] Date 11-17-93

COPIES White & Green DEPE Canary Driller Pink Owner Goldenrod Health Dept

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 14

Soil Boring Logs

Environmental Waste Management Associates, LLC

PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 208322
Boring #: AOC-2-1
Install Date: 9/16/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/16/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 18.5
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and Sub-base	1
		0.0			Fill	CMF SAND with some Gravels, Cobble, and Silt	
2		0.0		AIR KNIFE			2
		0.0					
3		0.0					3
		0.0					
4		0.0			CL	Red CLAY with little Silt, trace fine Gravel	4
5		0.0					5
		0.0					
6		0.0				Red CLAY with clumps opf hard, gray Clay, trace silt	6
		0.0					
7		0.0					7
		0.0		44		Red CLAY with some silt, pockets of hard red Clay	
8		0.0					8
		0.0			ML	Red SILT with some hard Clay	
9		0.0					9
		0.0					
10		0.0					10
		0.0					
11		0.0					11
		0.0				Red SILT with some soft Clay	
12		0.0					12
		0.0		Full			
13		0.0					13
		0.0					
14		0.0					14
	2-1	0.0					
15		0.0			CL	Red and tan CLAY with some Silt and hard Clay (Moist)	15
		0.0					
16		0.0					16
		0.0				Red and tan CLAY and SILT, trace fine Sand	
17		0.0		Full			17
		0.0					
18		0.0			GP	Weathered Shale and Mudstone	18
		0.0					
19						REFUSAL @ 18.5'	19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-2-2
Install Date: 9/16/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/16/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 15
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and sub-base	1
		0.0					
		0.0				Red CLAY, CMF SAND, and GRAVEL with some ACM	
2		0.0		Air Knife			2
		0.0					
3		0.0			Fill		3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0			CL	Red CLAY, trace Silt	
6		0.0					6
		0.0			ML	Red CLAY and tan SILT, trace fine Sand	
7		0.0					7
		0.0		Full			
8		0.0					8
		0.0					
9		0.0					9
		0.0					
10		0.0					10
		0.0			CL	Red CLAY with some Silt	
11		0.0					11
		0.0					
12		0.0		Full			12
		0.0			ML	Red SILT with some Clay, trace fine Sand	
13		0.0					13
		0.0					
14		0.0					14
	2-2	0.0					
15		0.0			SM	Weathered Bedrock	15
						REFUSAL @ 15'	
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-2-3
Install Date: 9/16/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/16/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 14
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and Sub-base	1
		0.0			Fill	Red CLAY, fine SAND, SILT, and GRAVEL with some ACM	
2		0.0		Air Knife			2
		0.0					
3		0.0					3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0			CL	Red CLAY, trace fine Gravel	
6		0.0					6
		0.0			ML	Red SILT with some Clay and Gravel	
7		0.0					7
		0.0		Full			
8		0.0					8
		0.0					
9		0.0					9
		0.0					
10		0.0					10
		0.0					
11		0.0					11
		12.2				Red SILT with some Clay and Gravel, odor present	
12	2-3	43.9		Full			12
		17.6					
13		0.0			SM	Fine SAND and SILT with some Clay and Gravel	13
		0.0					
14		0.0					14
15						REFUSAL @ 14' TEMP WELL INSATLLED, SCRENN INTERVAL: 9-14' TEMP WELL DRY	15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-2-4
Install Date: 9/16/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/16/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 12.5
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and sub-base	1
		0.0			Fill	Red CLAY with some Silt and Gravel, some ACM	
2		0.0		Air Knife			2
		0.0					
3		0.0					3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0			CL	Red, hard CLAY with trace Silt	
6		0.0					6
		0.0					
7		0.0					7
		0.0			ML	Red SILT and CLAY with little fine Gravel	
8		0.0		Full			8
		0.0					
9		0.0					9
		0.0					
10		0.0					10
	2-4	43.6			CL	Red, hard CLAY, staining present	
11		43.6		Full			11
		0.0			SM	Fine SAND, SILT and GRAVEL with some Clay	
12		0.0					12
		0.0					
13						REFUSAL @ 12.5'	13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-4
Install Date: 9/16/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/16/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 9
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and sub-base	1
		0.0			Fill	Red CLAY with some Silt and Gravel, some ACM	
2		0.0		Air Knife			2
		0.0					
3		0.0					3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0			ML	Red SILT with some Gravel, little fine Sand and Clay (dry)	
6		0.0					6
		0.0					
7		0.0		Full			7
		0.0					
8	4	0.0					8
		0.0			SM	Weathered Bedrock	
9		0.0					9
10						REFUSAL @ 9' TEMP WELL INSATLLED, SCRENN INTERVAL: 4-9' TEMP WELL DRY	10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-12-3
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 2.5
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
0		0.0	NA			Asphalt	
1		0.0			ML	Red SILT with some Gravel, little fine Sand and Clay	1
		0.0		Full			
2	12-1	0.0					2
		0.0					
3						END HAND AUGERING @ 2.5'	3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-12-3
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 2.5
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
0		0.0	NA			Asphalt	
1		0.0			ML	Red SILT with some Gravel, little fine Sand and Clay	1
		0.0		Full			
2	12-1	0.0					2
		0.0					
3						END HAND AUGERING @ 2.5'	3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-12-2
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 4
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and sub-base	1
		0.0					
		0.0			SP-SM	Red CMF SAND with some Gravel, Silt, and Cobble (weathered bedrock)	
2		0.0		Air Knife			2
		0.0					
3		0.0					3
		0.0					
4	12-2	0.0					4
						REFUSAL @ 4'	
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-12-1
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 2.5
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA	Full		Asphalt	1
		0.0				Concrete	
		0.0					
2	12-1	0.0			ML	Red SILT with some Gravel, little fine Sand and Clay	2
		0.0					
3						END HAND AUGERING @ 2.5'	3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-8
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 13.5
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and sub-base	1
		0.0			Fill	Red SILT with some fine and course Sands, Gravel, and Clay	
2		0.0		Air Knife			2
		0.0					
3		0.0					3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0			ML	Red SILT with some Clay and Gravel, little fine Sand	
6		0.0					6
		0.0					
7		0.0					7
		0.0		14			
8		0.0					8
		0.0					
9		0.0					9
		0.0					
10		0.0					10
		0.0				Red SILT with some fine Gravel, trace Clay	
11		0.0					11
		0.0					
12		0.0		Full			12
		0.0					
13	8	0.0					13
		0.0			SM	Weathered Bedrock	
14						REFUSAL @ 13.5'	14
						TEMP WELL INSTALLED, SCREEN INTERVAL: 8.5-13.5'	
15						TEMP WELL DRY	15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-7-1
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 8.5
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and sub-base	1
		0.0			ML	Red SILT with some Gravel, trace fine Sand and Clay	
2		0.0					2
		0.0		Air Knife			
3		0.0					3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0				Red SILT with some Gravel, trace Clay	
6		0.0				Moist at 8-8.5'	6
		0.0		24			
7		0.0					7
		0.0					
8		0.0					8
	7-1	0.0					
9						REFUSAL @ 8.5'	9
						TEMP WELL INSTALLED, SCREEN INTERVAL: 3.5-8.5'	
10						GROUNDWATER @ ~8'	10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-7-2
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 12
Sampler Type: Macrocore
G.W. Encountered: 11
G.W. Stabilized: 11

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1						Asphalt and sub-base	1
2				Air Knife	ML	Red SILT with some Clay, Gravel, and trace Sand	2
3							3
4							4
5							5
6				15			6
7							7
8							8
9							9
10							10
11	7-2			14		Red SILT with some Clay, Gravel, and fine Sand. Trace Cobble Staining @ 11'	11
12							12
13						REFUSAL @ 12' TEMP WELL INSATLLED, SCRENN INTERVAL: 7-12' GROUNDWATER @ ~11' FREE PRODUCT ON PVC	13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-5-1
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 9.5
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA		SP	CMF SAND and GRAVEL	1
		0.0					
		0.0			ML	Red SILT and some Clay, trace fine Gravel	
2		0.0					2
		0.0		32			
3		0.0					3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0					
6		0.0					6
		0.0					
7		0.0					7
		0.0		Full			
8		0.0				Red SILT with some Clay, Gravel, and Cobble	8
		0.0					
9		0.0				Red SILT with some Clay and trace Gravel	9
	5-1	0.0					
10						REFUSAL @9.5'	10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 208322
Boring #: AOC-5-2
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 8
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA		SP	CMF SAND, GRAVEL, and CLAY	1
		0.0					
		0.0			ML	Red SILT and some Clay, trace gravel and organics	
2		0.0					2
		0.0		48			
3		0.0				Red SILT with some Clay and Gravel	3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0					
6		0.0		Full			6
		0.0					
7		0.0				Red SILT with some Clay. Trace Gravel and Cobble	7
		0.0					
8	5-2	0.0				REFUSAL @ 8'	8
9						TEMP WELL INSATLLED, SCRENN INTERVAL: 3-8'	9
10						TEMP WELL DRY	10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC

PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 208322
Boring #: AOC-7-3
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 13
Sampler Type: Macrocore
G.W. Encountered: 10
G.W. Stabilized: 10

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and sub-base	1
2		0.0		Air Knife	Fill	Red SILT with some Clay and Gravel. ACM present	2
3		0.0					3
4		0.0		Full			4
5		0.0					5
6		0.0		20	ML	Red SILT with some Clay and Gravel	6
7		0.0					7
8		0.0					8
9		0.0					9
10	7-3	0.0				Red SILT and GRAVEL with some Clay. Staining and odor present	10
11		0.0					11
12		0.0		28		Red SILT and GRAVEL, some Clay. No odor or staining	12
13		0.0					13
14						REFUSAL @ 13'	14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC

PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 208322
Boring #: AOC-7-4
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 12.5
Sampler Type: Macrocore
G.W. Encountered: 5
G.W. Stabilized: 5

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0.0	NA			Asphalt and su-base	1
		0.0					
		0.0			Fill	Red SILT with some Clay, Gravel and Concrete	
2		0.0					2
		0.0		Air Knife			
3		0.0					3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0			ML	Red SILT with some Clay and Gravel (wet)	
6		0.0					6
		0.0					
7		0.0					7
		0.0		24			
8		0.0					8
		0.0					
9		0.0					9
		0.0				Red SILT with some Clay and Gravel (wet)	
10	7-4	0.0				Odor and staining present	10
		0.0				Red SILT with some Clay and Gravel (wet)	
11		0.0					11
		0.0		10			
12		0.0					12
		0.0					
13						REFUSAL @ 12.5'	13
						TEMP WELL INSATLLED, SCRENN INTERVAL: 7.5-12.5'	
14						GROUNDWATER @ ~7.5"	14
						FREE PRODUCT IN WELL	
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC

PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 208322
Boring #: AOC-6
Install Date: 9/17/13

Site Name: 50 Division Avenue
Site Location: Millington, NJ
Completion Date: 9/17/13
Geologist: Garrick Budrow
Drilling Co.: Summit
Driller: Kevin Barber
Drill Rig: Geoprobe 7822
Bit: Macro
Hammer Wt: NA
Drop: NA
Total Depth: 19
Sampler Type: Macrocore
G.W. Encountered: NA
G.W. Stabilized: NA

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
		0.0	NA			Concrete	
1		0.0			Fill	GRAVEL and COBBLE	1
		0.0					
2		0.0					2
		0.0		Air Knife			
3		0.0				Brown CMF SAND with some Gravel and Cobble, trace clay	3
		0.0					
4		0.0					4
		0.0					
5		0.0					5
		0.0			ML	Brown and red SILT with some Clay and Gravel	
6		0.0					6
		0.0			CL	Brown CLAY with some Silt and Gravel (moist)	
7		0.0					7
		0.0		28			
8		0.0					8
		0.0					
9		0.0					9
		0.0					
10		0.0					10
		0.0					
11		0.0			ML	Red SILT with some Clay and Gravel (dry)	11
		0.0					
12		0.0					12
		0.0		Full			
13		0.0					13
		0.0					
14		0.0					14
		0.0					
15		0.0					15
		0.0					
16		0.0					16
		0.0					
17		0.0		Full			17
		0.0					
18		0.0					18
		0.0					
19	6	0.0					19
						REFUSAL @ 19'	
20						TEMP WELL INSTALLED, SCREEN INTERVAL :14-19'	20
						TEMP WELL DRY	
21							21
22							22
23							23
24							24

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 15

Purge Guides

100 Misty Lane
Parsippany, NJ
(973) 560-1400

Job Name: 50 Division Avenue
Job Number: 208322
Personnel: Travis Both

Weather: 60°F, Sunny
Date: 4/22/2015

WELL INFORMATION	MW-1R	MW-2	MW-109			
PID (ppm):	5.0	0.4	0.0			
Depth to Product (feet):	NR	NR	NR			
Depth of Well (feet):	50.00	29.00	55.38			
Depth to Top of Screen (feet):	45.0	9.0	NR			
Depth to Water (feet)	20.22	5.73	26.44			
Well Diameter (inches):	2	2	6			
Volume in Well (gal):	4.85	3.79	42.51			
PRE-PURGE DATA						
Purge Start:	09:29	10:18	11:42			
pH:	7.15	7.42	7.49			
Specific Conductivity:	0.99	5.460	1.440			
Dissolved Oxygen (mg/l):	23.15	26.55	25.98			
Temperature (deg. C):	15.4	14.1	17.6			
Purge End:	09:53	10:47	13:15			
Elapsed Time:	0:24	0:29	1:33			
POST-PURGE DATA						
Depth to Water (feet):	29.31	9.16	40.59			
pH:	7.67	7.38	7.49			
Specific Conductivity:	1.020	5.410	1.520			
Dissolved Oxygen (mg/l):	13.40	16.67	18.31			
Temperature (deg. C):	16.8	13.4	21.0			
Minimum Purge Vol. Req. (gal):	14.6	11.4	127.5			
Rate of Purge: (gal/min)	0.63	0.41	1.38			
Actual Total Volume Purged (gal):	15.00	12.01	127.97			
Purge Method:	Redi-Flow	Redi-Flow	Redi-Flow			
SAMPLE DATA						
Sample Time:	09:55	10:50	13:23			
Sample Method:	Bailer	Bailer	Bailer			
Depth to Water (feet):	21.85	6.36	34.41			
pH:	7.65	7.02	7.42			
Specific Conductivity:	1.02	5.27	1.52			
Dissolved Oxygen (mg/l):	13.41	18.94	18.33			
Temperature (deg. C):	16.73	12.87	18.42			
Odor:	None	None	None			
Turbicity:	0	2.1	0			
Drawdown: (ft)	9.09	3.43	14.15			

Notes:
NR = Not Recorded

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 16

Laboratory Analytical Data Packages

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: **50 DIVISION AVE - 208322**
IAL Case Number: **E13-09135**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E13-09135

Client EWMA - HQ

Project 50 DIVISION AVE - 208322

Received On 9/17/2013@16:25

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09135-001	AOC-2-1	14/14.5	9/16/2013@11:12	Soil	1
09135-002	AOC-2-2	14/14.5	9/16/2013@12:15	Soil	1
09135-003	AOC-2-3	11.5/12	9/16/2013@13:42	Soil	4
09135-004	AOC-2-4	10/10.5	9/16/2013@11:32	Soil	4
09135-005	AOC-4	7.5/8	9/16/2013@14:59	Soil	4

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

This report was finalized on October 03, 2013

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received five (5) soil sample(s) from Environmental Waste Management Associates, LLC. (IAL SDG # E13-09135, Project: 50 DIVISION AVE - 208322) on September 17, 2013 for the analysis of:

(3) TCL VO + 15
(3) TCL BN + 15
(1) TCL Pesticides
(1) Herbicides
(4) NJ-EPH-C40
(1) NJ-EPH-Fractionated

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

10/2/13
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09135

Volatiles By 8260B

Batch ID: L130918	**Matrix: MEOH**

QC

- Calibration Curve met QC criteria.
- Internal Standards Recovery met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.

E13-09135

- All samples were analyzed within holding time.
- Samples listed below were run using methanol preserved sample, as applicable. This sample preservation technique elevates RLs and MDLs 100x versus water preservation. If subsequent dilutions are performed, the RLs and MDLs will increase by that factor (e.g. a methanol sample run at a 5x dilution would elevate RLs and MDLs by 500x). Initial runs using methanol are considered "straight" runs and have a dilution factor of 1.
- #004 needed 2x dilution due to high concentration of non- target compounds.
  #003 run straight.

Signature

9/19/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09135

Volatiles By 8260B

Batch ID: F130919-01	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Internal Standards Recovery met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- MS/MSD were not analyzed due to insufficient sample volume. LCS/LCSD were analyzed in their absence to meet method specific QC requirements.

E13-09135

- All samples were analyzed within holding time.
- 09135-005 was run straight.

Signature 9/20/2013 Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09135

Semivolatiles By **8270C/625**

Batch ID: 130918-02	**Matrix:** Soil

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E13-09135
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- All samples were analyzed as a straight run and no further dilutions were required.

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-diphenylhydrazine will be directly compared to the applicable criteria for azobenzene and/or 1,2-diphenylhydrazine.

John

Signature

9/19/2013

Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09135

Pesticide By 8081A

Batch ID: 130920-10	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 005

E13-09135

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- #005 needed no dilution

Signature

9/24/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09135

Herbicide By 8151A

Batch ID: 130924-04	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.

E13-09135

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- No dilution performed for sample 005.

Signature 9/26/2013 Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09135

NJ-EPH-C40 By Method 10.08 Rev 3

Batch ID: 130919-06	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria. n-Nonane was recovered between the 25-140% recovery range.
- RPD between LCS/LCSD met QC criteria.
- MS Percent Recovery met QC criteria. n-Nonane was recovered between the 25-140% recovery range.
- RPD between the Sample/Duplicate met QC criteria.

E13-09135

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Samples were run without dilution.

9/24/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09135

NJ-EPH By Method 10.08 Rev 3

Batch ID: 130923-15	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- RPD between LCS/LCSD met QC criteria.
- MS Percent Recovery did not meet QC criteria. MS failed criteria for ARO fraction,due to high concentration of target analyte.
- RPD between the Sample/Duplicate met QC criteria.

E13-09135

- All samples were extracted within holding time.
- All samples were fractionated within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Sample was run straight.

9/25/2013

Signature Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE - 208322
Lab Case No.: E13-09135

	Lab ID:	09135-001			09135-002			09135-003			09135-004		
	Client ID:	AOC-2-1			AOC-2-2			AOC-2-3			AOC-2-4		
	Depth:	14/14.5			14/14.5			11.5/12			10/10.5		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	9/16/13			9/16/13			9/16/13			9/16/13		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Isopropylbenzene		~		~	~		~	0.049	J	0.044	ND		0.091
Methylcyclohexane		~		~	~		~	0.571		0.049	0.543	D	0.103
TOTAL VO's:		~		~	~		~	0.620	J		0.543	D	
TOTAL TIC's:		~		~	~		~	23.8			40.7		
TOTAL VO's & TIC's:		~		~	~		~	24.4	J		41.2	D	
Semivolatiles - BN (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene		~		~	~		~	ND		0.023	0.061		0.025
2-Methylnaphthalene		~		~	~		~	0.133		0.031	ND		0.034
Acenaphthylene		~		~	~		~	0.029	J	0.026	0.086		0.029
Acenaphthene		~		~	~		~	0.167		0.030	0.490		0.033
Dibenzofuran		~		~	~		~	0.146		0.023	0.211		0.025
Fluorene		~		~	~		~	0.105		0.023	0.343		0.025
Phenanthrene		~		~	~		~	1.04		0.025	1.65		0.027
Anthracene		~		~	~		~	0.369		0.038	0.949		0.041
Fluoranthene		~		~	~		~	0.471		0.023	1.34		0.025
Pyrene		~		~	~		~	1.92		0.028	4.89		0.030
Benzo[a]anthracene		~		~	~		~	0.951		0.036	1.91		0.039
Chrysene		~		~	~		~	1.04		0.026	2.40		0.028
TOTAL BN'S:		~		~	~		~	6.37	J		14.3		
TOTAL TIC's:		~		~	~		~	54.8			80.8		
TOTAL BN'S & TIC's:		~		~	~		~	61.2	J		95.1		
NJ-EPH-C40 (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C40		ND		10.2	ND		9.55	684		10.2	~		~
NJ-EPH-Fractionated (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics		~		~	~		~	~		~	46.2		7.28
C12-C16 Aliphatics		~		~	~		~	~		~	163		7.28
C16-C21 Aliphatics		~		~	~		~	~		~	362		4.85
C21-C40 Aliphatics		~		~	~		~	~		~	748		4.85
Total Aliphatics		~		~	~		~	~		~	1320		7.28
C10-C12 Aromatics		~		~	~		~	~		~	ND		4.85
C12-C16 Aromatics		~		~	~		~	~		~	59.8		4.85
C16-C21 Aromatics		~		~	~		~	~		~	463		4.85
C21-C36 Aromatics		~		~	~		~	~		~	708		4.85
Total Aromatics		~		~	~		~	~		~	1230		4.85
Total NJ-EPH		~		~	~		~	~		~	2550		7.28

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
D = The compound was reported from the Diluted analysis

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE - 208322
Lab Case No.: E13-09135

	Lab ID:	**09135-005**	
	Client ID:	**AOC-4**	
	Depth:	**7.5/8**	
	Matrix:	**Soil**	
	Sampled Date	**9/16/13**	
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*		
TOTAL VO's:	ND		
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	ND		
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*		
TOTAL BN'S:	ND		
TOTAL TIC's:	ND		
TOTAL BN'S & TIC's:	ND		
Pesticides (Units)	*(mg/Kg-ppm)*		
alpha-BHC	ND		0.000179
beta-BHC	ND		0.000179
gamma-BHC (Lindane)	ND		0.000179
delta-BHC	ND		0.000179
Heptachlor	ND		0.000179
Aldrin	ND		0.000179
Heptachlor epoxide	ND		0.000179
Endosulfan I	ND		0.000179
4,4'-DDE	ND		0.000179
Dieldrin	ND		0.000179
Endrin	ND		0.000179
Endosulfan II	ND		0.000179
4,4'-DDD	ND		0.000179
Endrin aldehyde	ND		0.000179
Endosulfan sulfate	ND		0.000179
4,4'-DDT	ND		0.000179
Endrin ketone	ND		0.000179
Methoxychlor	ND		0.000179
alpha-Chlordane	ND		0.000179
gamma-Chlordane	ND		0.000179
Toxaphene	ND		0.00215
Endosulfan (I and II)	ND		0.000179
Chlordane (alpha and gamma)	ND		0.000179
Herbicides (Units)	*(mg/Kg-ppm)*		
Dalapon	ND		0.00714
Dicamba	ND		0.00714
2,4-D	ND		0.00714
2,4,5-TP (Silvex)	ND		0.00714
2,4,5-T	ND		0.00714
2,4-DB	ND		0.00714
Dinoseb	ND		0.00714
NJ-EPH-C40 (Units)	*(mg/Kg-ppm)*		
C9-C40	ND		9.84

ND = Analyzed for but Not Detected at the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09135-003
Client ID: AOC-2-3/11.5-1
Date Received: 09/17/2013
Date Analyzed: 09/18/2013
Data file: L9371.D

GC/MS Column: DB-624
Sample wt/vol: 0.042g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.136	0.086
Chloromethane	ND		0.136	0.054
Vinyl chloride	ND		0.136	0.072
Bromomethane	ND		0.136	0.059
Chloroethane	ND		0.136	0.061
Trichlorofluoromethane	ND		0.136	0.076
1,1-Dichloroethene	ND		0.136	0.053
Acetone	ND		0.272	0.075
Carbon disulfide	ND		0.136	0.063
Methylene chloride	ND		0.272	0.270
trans-1,2-Dichloroethene	ND		0.136	0.052
Methyl tert-butyl ether (MTBE)	ND		0.136	0.098
1,1-Dichloroethane	ND		0.136	0.040
cis-1,2-Dichloroethene	ND		0.136	0.037
2-Butanone (MEK)	ND		0.136	0.076
Bromochloromethane	ND		0.136	0.038
Chloroform	ND		0.136	0.050
1,1,1-Trichloroethane	ND		0.136	0.045
Carbon tetrachloride	ND		0.136	0.049
1,2-Dichloroethane (EDC)	ND		0.136	0.050
Benzene	ND		0.136	0.034
Trichloroethene	ND		0.136	0.030
1,2-Dichloropropane	ND		0.136	0.033
1,4-Dioxane	ND		27.2	2.59
Bromodichloromethane	ND		0.136	0.053
cis-1,3-Dichloropropene	ND		0.136	0.035
4-Methyl-2-pentanone (MIBK)	ND		0.136	0.041

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09135-003
Client ID: AOC-2-3/11.5-1
Date Received: 09/17/2013
Date Analyzed: 09/18/2013
Data file: L9371.D

GC/MS Column: DB-624
Sample wt/vol: 0.042g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.136	0.037
trans-1,3-Dichloropropene	ND		0.136	0.035
1,1,2-Trichloroethane	ND		0.136	0.059
Tetrachloroethene	ND		0.136	0.033
2-Hexanone	ND		0.136	0.034
Dibromochloromethane	ND		0.136	0.033
1,2-Dibromoethane (EDB)	ND		0.136	0.044
Chlorobenzene	ND		0.136	0.037
Ethylbenzene	ND		0.136	0.049
Total Xylenes	ND		0.272	0.090
Styrene	ND		0.136	0.054
Bromoform	ND		0.272	0.033
Isopropylbenzene	0.049	J	0.136	0.044
1,1,2,2-Tetrachloroethane	ND		0.136	0.035
1,3-Dichlorobenzene	ND		0.136	0.037
1,4-Dichlorobenzene	ND		0.136	0.041
1,2-Dichlorobenzene	ND		0.136	0.034
1,2-Dibromo-3-chloropropane	ND		0.272	0.083
1,2,4-Trichlorobenzene	ND		0.136	0.054
1,2,3-Trichlorobenzene	ND		0.136	0.060
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.136	0.068
Methyl acetate	ND		0.136	0.082
Cyclohexane	ND		0.272	0.052
Methylcyclohexane	0.571		0.136	0.049
1,3-Dichloropropene (cis- and trans-)	ND		0.136	0.035
Total Target Compounds (52):	0.620	J		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09135-003
Client ID: AOC-2-3/11.5-1
Date Received: 09/17/2013
Date Analyzed: 09/18/2013
Date File: L9371.D

GC/MS Column: DB-624
Sample wt/vol: 0.042g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	1.29	11.12
	Unknown VOA	1.27	12.64
	Unknown Hydrocarbon	1.58	12.73
	Unknown Aromatic	1.38	13.91
	Unknown Hydrocarbon	1.91	14.21
	Unknown Aromatic	1.50	14.35
	Unknown Aromatic	1.33	14.82
	Unknown Hydrocarbon	1.59	14.96
	Unknown Aromatic	1.47	15.24
	Unknown Aromatic	1.61	15.35
	Unknown Aromatic	1.92	15.72
	Unknown Aromatic	1.48	15.91
	Unknown Aromatic	2.41	16.09
	Unknown Aromatic	1.58	16.31
	Unknown Aromatic	1.46	16.45

Total TICs = 23.8

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09135-004
Client ID: AOC-2-4/10-10.
Date Received: 09/17/2013
Date Analyzed: 09/18/2013
Data file: L9370.D

GC/MS Column: DB-624
Sample wt/vol: 0.022g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 20.4

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.286	0.180
Chloromethane	ND		0.286	0.114
Vinyl chloride	ND		0.286	0.151
Bromomethane	ND		0.286	0.123
Chloroethane	ND		0.286	0.128
Trichlorofluoromethane	ND		0.286	0.160
1,1-Dichloroethene	ND		0.286	0.111
Acetone	ND		0.571	0.157
Carbon disulfide	ND		0.286	0.131
Methylene chloride	ND		0.571	0.565
trans-1,2-Dichloroethene	ND		0.286	0.108
Methyl tert-butyl ether (MTBE)	ND		0.286	0.206
1,1-Dichloroethane	ND		0.286	0.083
cis-1,2-Dichloroethene	ND		0.286	0.077
2-Butanone (MEK)	ND		0.286	0.160
Bromochloromethane	ND		0.286	0.080
Chloroform	ND		0.286	0.106
1,1,1-Trichloroethane	ND		0.286	0.094
Carbon tetrachloride	ND		0.286	0.103
1,2-Dichloroethane (EDC)	ND		0.286	0.106
Benzene	ND		0.286	0.071
Trichloroethene	ND		0.286	0.063
1,2-Dichloropropane	ND		0.286	0.068
1,4-Dioxane	ND		57.1	5.42
Bromodichloromethane	ND		0.286	0.111
cis-1,3-Dichloropropene	ND		0.286	0.074
4-Methyl-2-pentanone (MIBK)	ND		0.286	0.086

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09135-004
Client ID: AOC-2-4/10-10.
Date Received: 09/17/2013
Date Analyzed: 09/18/2013
Data file: L9370.D

GC/MS Column: DB-624
Sample wt/vol: 0.022g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 20.4

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.286	0.077
trans-1,3-Dichloropropene	ND		0.286	0.074
1,1,2-Trichloroethane	ND		0.286	0.123
Tetrachloroethene	ND		0.286	0.068
2-Hexanone	ND		0.286	0.071
Dibromochloromethane	ND		0.286	0.068
1,2-Dibromoethane (EDB)	ND		0.286	0.091
Chlorobenzene	ND		0.286	0.077
Ethylbenzene	ND		0.286	0.103
Total Xylenes	ND		0.571	0.190
Styrene	ND		0.286	0.114
Bromoform	ND		0.571	0.068
Isopropylbenzene	ND		0.286	0.091
1,1,2,2-Tetrachloroethane	ND		0.286	0.074
1,3-Dichlorobenzene	ND		0.286	0.077
1,4-Dichlorobenzene	ND		0.286	0.086
1,2-Dichlorobenzene	ND		0.286	0.071
1,2-Dibromo-3-chloropropane	ND		0.571	0.174
1,2,4-Trichlorobenzene	ND		0.286	0.114
1,2,3-Trichlorobenzene	ND		0.286	0.126
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.286	0.143
Methyl acetate	ND		0.286	0.171
Cyclohexane	ND		0.571	0.108
Methylcyclohexane	0.543	D	0.286	0.103
1,3-Dichloropropene (cis- and trans-)	ND		0.286	0.074
Total Target Compounds (52):	0.543	D		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09135-004
Client ID: AOC-2-4/10-10.
Date Received: 09/17/2013
Date Analyzed: 09/18/2013
Date File: L9370.D

GC/MS Column: DB-624
Sample wt/vol: 0.022g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 20.4

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Aromatic	2.23	12.65
	Unknown Hydrocarbon	2.23	12.73
	Unknown Hydrocarbon	2.37	13.07
	Unknown PAH	2.34	13.31
	Unknown Aromatic	2.77	14.27
	Unknown Hydrocarbon	3.40	14.97
	Unknown Aromatic	2.86	15.35
	Unknown VOA	2.03	15.61
	Unknown Aromatic	3.14	15.72
	Unknown Aromatic	2.68	15.91
	Unknown Aromatic	4.43	16.09
	Unknown Aromatic	2.06	16.23
	Unknown Aromatic	3.14	16.31
	Unknown Aromatic	3.17	16.45
	Unknown Aromatic	1.83	16.69

Total TICs = 40.7

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09135-005
Client ID: AOC-4/7.5-8
Date Received: 09/17/2013
Date Analyzed: 09/19/2013
Data file: F7685.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00145	0.000812
Chloromethane	ND		0.00145	0.000421
Vinyl chloride	ND		0.00145	0.000566
Bromomethane	ND		0.00145	0.000696
Chloroethane	ND		0.00145	0.000537
Trichlorofluoromethane	ND		0.00145	0.000435
1,1-Dichloroethene	ND		0.00145	0.000595
Acetone	ND		0.00725	0.000798
Carbon disulfide	ND		0.00145	0.00045
Methylene chloride	ND		0.0029	0.00287
trans-1,2-Dichloroethene	ND		0.00145	0.000493
Methyl tert-butyl ether (MTBE)	ND		0.00145	0.000363
1,1-Dichloroethane	ND		0.00145	0.000435
cis-1,2-Dichloroethene	ND		0.00145	0.000406
2-Butanone (MEK)	ND		0.0029	0.000421
Bromochloromethane	ND		0.00145	0.000363
Chloroform	ND		0.00145	0.000392
1,1,1-Trichloroethane	ND		0.00145	0.000377
Carbon tetrachloride	ND		0.00145	0.000363
1,2-Dichloroethane (EDC)	ND		0.00145	0.000319
Benzene	ND		0.00145	0.000392
Trichloroethene	ND		0.00145	0.000493
1,2-Dichloropropane	ND		0.00145	0.000377
1,4-Dioxane	ND		0.290	0.016
Bromodichloromethane	ND		0.00145	0.000305
cis-1,3-Dichloropropene	ND		0.00145	0.000305
4-Methyl-2-pentanone (MIBK)	ND		0.00145	0.000305

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09135-005
Client ID: AOC-4/7.5-8
Date Received: 09/17/2013
Date Analyzed: 09/19/2013
Data file: F7685.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00145	0.000363
trans-1,3-Dichloropropene	ND		0.00145	0.000319
1,1,2-Trichloroethane	ND		0.00145	0.000305
Tetrachloroethene	ND		0.00145	0.000363
2-Hexanone	ND		0.00145	0.000392
Dibromochloromethane	ND		0.00145	0.000305
1,2-Dibromoethane (EDB)	ND		0.00145	0.00029
Chlorobenzene	ND		0.00145	0.000406
Ethylbenzene	ND		0.00145	0.000406
Total Xylenes	ND		0.0029	0.0012
Styrene	ND		0.00145	0.000319
Bromoform	ND		0.00145	0.000348
Isopropylbenzene	ND		0.00145	0.000421
1,1,2,2-Tetrachloroethane	ND		0.00145	0.000334
1,3-Dichlorobenzene	ND		0.00145	0.000348
1,4-Dichlorobenzene	ND		0.00145	0.00029
1,2-Dichlorobenzene	ND		0.00145	0.000406
1,2-Dibromo-3-chloropropane	ND		0.00145	0.00029
1,2,4-Trichlorobenzene	ND		0.00145	0.000377
1,2,3-Trichlorobenzene	ND		0.00145	0.000464
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00145	0.000537
Methyl acetate	ND		0.00145	0.000319
Cyclohexane	ND		0.00725	0.000566
Methylcyclohexane	ND		0.00725	0.000522
1,3-Dichloropropene (cis- and trans-)	ND		0.00145	0.000319

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09135-005
Client ID: AOC-4/7.5-8
Date Received: 09/17/2013
Date Analyzed: 09/19/2013
Date File: F7685.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09135-003
Client ID: AOC-2-3/
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0081.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.023
Bis(2-chloroethyl) ether	ND		0.038	0.026
Bis(2-chloroisopropyl) ether	ND		0.038	0.023
N-Nitrosodi-n-propylamine	ND		0.038	0.025
Acetophenone	ND		0.038	0.023
Hexachloroethane	ND		0.038	0.023
Nitrobenzene	ND		0.038	0.037
Isophorone	ND		0.038	0.025
Bis(2-chloroethoxy) methane	ND		0.038	0.032
Naphthalene	ND		0.038	0.023
4-Chloroaniline	ND		0.038	0.036
Hexachlorobutadiene	ND		0.038	0.023
Caprolactam	ND		0.038	0.023
2-Methylnaphthalene	0.133		0.038	0.031
Hexachlorocyclopentadiene	ND		0.038	0.025
1,1'-Biphenyl	ND		0.038	0.023
2-Chloronaphthalene	ND		0.038	0.036
2-Nitroaniline	ND		0.038	0.023
Dimethyl phthalate	ND		0.038	0.023

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09135-003
Client ID: AOC-2-3/
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0081.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.023
Acenaphthylene	0.029	J	0.038	0.026
3-Nitroaniline	ND		0.038	0.031
Acenaphthene	0.167		0.038	0.030
2,4-Dinitrotoluene	ND		0.038	0.025
Dibenzofuran	0.146		0.038	0.023
Diethyl phthalate	ND		0.038	0.028
Fluorene	0.105		0.038	0.023
4-Chlorophenyl phenyl ether	ND		0.038	0.023
4-Nitroaniline	ND		0.038	0.031
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.023
N-Nitrosodiphenylamine	ND		0.038	0.023
4-Bromophenyl phenyl ether	ND		0.038	0.023
Hexachlorobenzene	ND		0.038	0.030
Atrazine	ND		0.038	0.026
Phenanthrene	1.04		0.038	0.025
Anthracene	0.369		0.038	0.038
Carbazole	ND		0.038	0.023
Di-n-butyl phthalate	ND		0.038	0.034
Fluoranthene	0.471		0.038	0.023
Pyrene	1.92		0.038	0.028
Butyl benzyl phthalate	ND		0.038	0.024
3,3'-Dichlorobenzidine	ND		0.038	0.026
Benzo[a]anthracene	0.951		0.038	0.036
Chrysene	1.04		0.038	0.026
Bis(2-ethylhexyl) phthalate	ND		0.038	0.023
Di-n-octyl phthalate	ND		0.038	0.034
Benzo[b]fluoranthene	ND		0.038	0.023
Benzo[k]fluoranthene	ND		0.038	0.036
Benzo[a]pyrene	ND		0.038	0.023
Indeno[1,2,3-cd]pyrene	ND		0.038	0.025
Dibenz[a,h]anthracene	ND		0.038	0.028
Benzo[g,h,i]perylene	ND		0.038	0.034
Dinitrotoluene (2,4- and 2,6-)	ND		0.038	0.025
Total Target Compounds (53):	6.37	J		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09135-003
Client ID: AOC-2-3/
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Date File: C0081.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	3.19	4.19
	Unknown SV	1.99	4.35
	Unknown Hydrocarbon	3.43	4.42
	Unknown PAH	1.64	4.67
	Unknown PAH	3.62	4.81
	Unknown PAH	3.68	4.83
	Unknown PAH	1.85	4.85
	Unknown PAH	4.84	4.88
	Unknown SV	4.46	5.00
	Unknown PAH	4.17	5.05
	Unknown PAH	4.88	5.08
	Unknown PAH	9.05	5.12
	Unknown PAH	3.64	5.14
	Unknown PAH	2.61	5.16
	Unknown SV	1.78	5.28

Total TICs = 54.8

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09135-004
Client ID: AOC-2-4/
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0082.D

GC/MS Column: DB-5
Sample wt/vol: 15.29g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.4

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.041	0.025
Bis(2-chloroethyl) ether	ND		0.041	0.029
Bis(2-chloroisopropyl) ether	ND		0.041	0.025
N-Nitrosodi-n-propylamine	ND		0.041	0.027
Acetophenone	ND		0.041	0.025
Hexachloroethane	ND		0.041	0.025
Nitrobenzene	ND		0.041	0.040
Isophorone	ND		0.041	0.027
Bis(2-chloroethoxy) methane	ND		0.041	0.034
Naphthalene	0.061		0.041	0.025
4-Chloroaniline	ND		0.041	0.039
Hexachlorobutadiene	ND		0.041	0.025
Caprolactam	ND		0.041	0.025
2-Methylnaphthalene	ND		0.041	0.034
Hexachlorocyclopentadiene	ND		0.041	0.027
1,1'-Biphenyl	ND		0.041	0.025
2-Chloronaphthalene	ND		0.041	0.039
2-Nitroaniline	ND		0.041	0.025
Dimethyl phthalate	ND		0.041	0.025

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09135-004
Client ID: AOC-2-4/
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0082.D

GC/MS Column: DB-5
Sample wt/vol: 15.29g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.4

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.041	0.025
Acenaphthylene	0.086		0.041	0.029
3-Nitroaniline	ND		0.041	0.034
Acenaphthene	0.490		0.041	0.033
2,4-Dinitrotoluene	ND		0.041	0.027
Dibenzofuran	0.211		0.041	0.025
Diethyl phthalate	ND		0.041	0.030
Fluorene	0.343		0.041	0.025
4-Chlorophenyl phenyl ether	ND		0.041	0.025
4-Nitroaniline	ND		0.041	0.034
1,2,4,5-Tetrachlorobenzene	ND		0.041	0.025
N-Nitrosodiphenylamine	ND		0.041	0.025
4-Bromophenyl phenyl ether	ND		0.041	0.025
Hexachlorobenzene	ND		0.041	0.033
Atrazine	ND		0.041	0.029
Phenanthrene	1.65		0.041	0.027
Anthracene	0.949		0.041	0.041
Carbazole	ND		0.041	0.025
Di-n-butyl phthalate	ND		0.041	0.037
Fluoranthene	1.34		0.041	0.025
Pyrene	4.89		0.041	0.030
Butyl benzyl phthalate	ND		0.041	0.026
3,3'-Dichlorobenzidine	ND		0.041	0.029
Benzo[a]anthracene	1.91		0.041	0.039
Chrysene	2.40		0.041	0.028
Bis(2-ethylhexyl) phthalate	ND		0.041	0.025
Di-n-octyl phthalate	ND		0.041	0.037
Benzo[b]fluoranthene	ND		0.041	0.025
Benzo[k]fluoranthene	ND		0.041	0.039
Benzo[a]pyrene	ND		0.041	0.025
Indeno[1,2,3-cd]pyrene	ND		0.041	0.027
Dibenz[a,h]anthracene	ND		0.041	0.030
Benzo[g,h,i]perylene	ND		0.041	0.037
Dinitrotoluene (2,4- and 2,6-)	ND		0.041	0.027

Total Target Compounds (53): 14.3

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09135-004
Client ID: AOC-2-4/
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Date File: C0082.D

GC/MS Column: DB-5
Sample wt/vol: 15.29g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.4

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	5.43	4.21
	Unknown SV	3.01	4.30
	Unknown SV	3.85	4.38
	Unknown Hydrocarbon	5.92	4.45
	Unknown SV	3.53	4.70
	Unknown SV	2.99	4.75
	Unknown SV	2.92	4.80
	Unknown PAH	4.61	4.84
	Unknown PAH	5.33	4.86
	Unknown PAH	9.98	4.92
	Unknown SV	4.22	5.03
	Unknown PAH	5.59	5.09
	Unknown PAH	4.54	5.12
	Unknown PAH	13.9	5.17
	Unknown SV	5.01	5.32

Total TICs = 80.8

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09135-005
Client ID: AOC-4/7.
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0083.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.037	0.022
Bis(2-chloroethyl) ether	ND		0.037	0.026
Bis(2-chloroisopropyl) ether	ND		0.037	0.022
N-Nitrosodi-n-propylamine	ND		0.037	0.024
Acetophenone	ND		0.037	0.022
Hexachloroethane	ND		0.037	0.022
Nitrobenzene	ND		0.037	0.036
Isophorone	ND		0.037	0.024
Bis(2-chloroethoxy) methane	ND		0.037	0.031
Naphthalene	ND		0.037	0.022
4-Chloroaniline	ND		0.037	0.034
Hexachlorobutadiene	ND		0.037	0.022
Caprolactam	ND		0.037	0.022
2-Methylnaphthalene	ND		0.037	0.030
Hexachlorocyclopentadiene	ND		0.037	0.024
1,1'-Biphenyl	ND		0.037	0.022
2-Chloronaphthalene	ND		0.037	0.034
2-Nitroaniline	ND		0.037	0.022
Dimethyl phthalate	ND		0.037	0.022

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09135-005
Client ID: AOC-4/7.
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0083.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.022
Acenaphthylene	ND		0.037	0.026
3-Nitroaniline	ND		0.037	0.030
Acenaphthene	ND		0.037	0.029
2,4-Dinitrotoluene	ND		0.037	0.024
Dibenzofuran	ND		0.037	0.022
Diethyl phthalate	ND		0.037	0.027
Fluorene	ND		0.037	0.022
4-Chlorophenyl phenyl ether	ND		0.037	0.022
4-Nitroaniline	ND		0.037	0.030
1,2,4,5-Tetrachlorobenzene	ND		0.037	0.022
N-Nitrosodiphenylamine	ND		0.037	0.022
4-Bromophenyl phenyl ether	ND		0.037	0.022
Hexachlorobenzene	ND		0.037	0.029
Atrazine	ND		0.037	0.026
Phenanthrene	ND		0.037	0.024
Anthracene	ND		0.037	0.037
Carbazole	ND		0.037	0.022
Di-n-butyl phthalate	ND		0.037	0.033
Fluoranthene	ND		0.037	0.022
Pyrene	ND		0.037	0.027
Butyl benzyl phthalate	ND		0.037	0.023
3,3'-Dichlorobenzidine	ND		0.037	0.026
Benzo[a]anthracene	ND		0.037	0.035
Chrysene	ND		0.037	0.025
Bis(2-ethylhexyl) phthalate	ND		0.037	0.022
Di-n-octyl phthalate	ND		0.037	0.033
Benzo[b]fluoranthene	ND		0.037	0.022
Benzo[k]fluoranthene	ND		0.037	0.034
Benzo[a]pyrene	ND		0.037	0.022
Indeno[1,2,3-cd]pyrene	ND		0.037	0.024
Dibenz[a,h]anthracene	ND		0.037	0.027
Benzo[g,h,i]perylene	ND		0.037	0.033
Dinitrotoluene (2,4- and 2,6-)	ND		0.037	0.024

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09135-005
Client ID: AOC-4/7.
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Date File: C0083.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09135-005
Client ID: AOC-4/7.5-
Date Received: 09/17/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
Data file: V4601.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.85g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000358	0.000179
beta-BHC	ND		0.000358	0.000179
gamma-BHC (Lindane)	ND		0.000358	0.000179
delta-BHC	ND		0.000358	0.000179
Heptachlor	ND		0.000358	0.000179
Aldrin	ND		0.000358	0.000179
Heptachlor epoxide	ND		0.000358	0.000179
Endosulfan I	ND		0.000358	0.000179
4,4'-DDE	ND		0.000358	0.000179
Dieldrin	ND		0.000358	0.000179
Endrin	ND		0.000358	0.000179
Endosulfan II	ND		0.000358	0.000179
4,4'-DDD	ND		0.000358	0.000179
Endrin aldehyde	ND		0.000358	0.000179
Endosulfan sulfate	ND		0.000358	0.000179
4,4'-DDT	ND		0.000358	0.000179
Endrin ketone	ND		0.000358	0.000179
Methoxychlor	ND		0.000358	0.000179
alpha-Chlordane	ND		0.000358	0.000179
gamma-Chlordane	ND		0.000358	0.000179
Toxaphene	ND		0.00448	0.00215
Endosulfan (I and II)	ND		0.000358	0.000179
Chlordane (alpha and gamma)	ND		0.000358	0.000179

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09135-005
Client ID: AOC-4/7.5-
Date Received: 09/17/2013
Date Extracted: 09/24/2013
Date Analyzed: 09/25/2013
Data file: W0306.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.018	0.00714
Dicamba	ND		0.018	0.00714
2,4-D	ND		0.018	0.00714
2,4,5-TP (Silvex)	ND		0.018	0.00714
2,4,5-T	ND		0.018	0.00714
2,4-DB	ND		0.018	0.00714
Dinoseb	ND		0.018	0.00714

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09135-001
Client ID: AOC-2-1/
Date Received: 09/17/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0810.D

GC Column: RTX-5
Sample wt/vol: 10.01g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.2

Compound	Concentration	Q	RL	MDL
C9-C40	ND		41.0	10.2

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09135-002
Client ID: AOC-2-2/
Date Received: 09/17/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0811.D

GC Column: RTX-5
Sample wt/vol: 10.86g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.2

Compound	Concentration	Q	RL	MDL
C9-C40	ND		38.2	9.55

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09135-003
Client ID: AOC-2-3/
Date Received: 09/17/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0812.D

GC Column: RTX-5
Sample wt/vol: 10.06g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	RL	MDL
C9-C40	684		40.9	10.2

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09135-005
Client ID: AOC-4/7.
Date Received: 09/17/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0827.D

GC Column: RTX-5
Sample wt/vol: 10.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.40

Compound	Concentration	Q	RL	MDL
C9-C40	ND		39.3	9.84

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 09135-004
Client ID: AOC-2-4/
Date Received: 09/17/2013
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6388.D
Dilution Factor: 1

GC Column: HP-5
Sample wt/vol: 5.18g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 20.4
Aro Date Analyzed: 09/24/2013
Data file: UB4463.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	46.2		14.6	7.28
C12-C16 Aliphatics	163		9.70	7.28
C16-C21 Aliphatics	362		14.6	4.85
C21-C40 Aliphatics	748		48.5	4.85
Total Aliphatics	1320		48.5	7.28
C10-C12 Aromatics	ND		9.70	4.85
C12-C16 Aromatics	59.8		14.6	4.85
C16-C21 Aromatics	463		24.3	4.85
C21-C36 Aromatics	708		38.8	4.85
Total Aromatics	1230		38.8	4.85
Total NJ-EPH	2550		48.5	7.28

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/18/2013

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS130918	SOIL	L9351.D	113	104	96
08967-003	MEOH	L9354.D	114	104	96
08967-004	MEOH	L9355.D	115	104	96
09031-002	MEOH	L9356.D	110	103	96
08895-001	MEOH	L9357.D	109	102	98
09104-001	MEOH	L9358.D	109	102	97
09089-001	MEOH	L9359.D	110	103	98
09094-001	MEOH	L9360.D	108	102	99
LCSS130918	MEOH	L9361.D	107	102	98
08895-001MS	MEOH	L9362.D	106	104	96
08895-001MSD	MEOH	L9363.D	108	104	98
09079-005	MEOH	L9366.D	109	102	96
09079-006	MEOH	L9367.D	108	102	97
09135-004	MEOH	L9370.D	105	103	96
09135-003	MEOH	L9371.D	104	102	97

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	45-154	45-153
SMC2 = Toluene-d8	50 ppb	47-151	48-157
SMC3 = Bromofluorobenzene	50 ppb	48-149	47-154

Column to be used to flag recovery values

FORM 2

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/19/2013

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS130919-01	SOIL	F7677.D	95	90	85
LCSS130919-01	SOIL	F7678.D	93	98	94
LCSDS130919-01	SOIL	F7679.D	87	100	92
09216-006	SOIL	F7681.D	94	85	85
09216-008	SOIL	F7682.D	90	93	83
09079-010	SOIL	F7684.D	94	97	88
09135-005	SOIL	F7685.D	98	88	85
09152-003	SOIL	F7686.D	97	97	87
09229-001	SOIL	F7687.D	103	90	83
09229-002	SOIL	F7688.D	102	89	88
09229-003	SOIL	F7689.D	106	90	88
09229-004	SOIL	F7690.D	109	89	85
09229-005	SOIL	F7691.D	104	92	87
09229-006	SOIL	F7692.D	106	90	88
09229-007	SOIL	F7693.D	109	92	86
09229-008	SOIL	F7694.D	106	92	85
09229-009	SOIL	F7695.D	118	93	89
09229-011	SOIL	F7697.D	112	93	87
09229-012	SOIL	F7698.D	111	92	87

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	55-153	36-162
SMC2 = Toluene-d8	50 ppb	56-151	46-156
SMC3 = Bromofluorobenzene	50 ppb	67-140	43-151

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

8260LCS **LCS ACCURACY REPORT**

Lab ID: LCSS130918
Date Received:
Date Analyzed: 09/18/2013
LCS Data file: L9361.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	63.5	127
Chloromethane	50.0	0.00	54.3	109
Vinyl chloride	50.0	0.00	59.2	118
Bromomethane	50.0	0.00	61.3	123
Chloroethane	50.0	0.00	59.9	120
Trichlorofluoromethane	50.0	0.00	60.9	122
Acrolein	150	0.00	123.4	82
1,1-Dichloroethene	50.0	0.00	63.3	127
Acetone	50.0	0.00	46.6	93
Carbon disulfide	50.0	0.00	61.7	123
Vinyl acetate	50.0	0.00	60.7	121
Methylene chloride	50.0	0.00	55.7	111
Acrylonitrile	150.0	0.00	186.1	124
tert-Butyl alcohol (TBA)	100.0	0.00	94.9	95
trans-1,2-Dichloroethene	50.0	0.00	62.6	125
Methyl tert-butyl ether (MTBE)	50.0	0.00	49.4	99
1,1-Dichloroethane	50.0	0.00	49.8	100
Diisopropyl ether (DIPE)	50.0	0.00	46.4	93
cis-1,2-Dichloroethene	50.0	0.00	48.4	97
2,2-Dichloropropane	50.0	0.00	62.6	125
2-Butanone (MEK)	50.0	0.00	45.7	91
Bromochloromethane	50.0	0.00	48.6	97
Chloroform	50.0	0.00	50.5	101
1,1,1-Trichloroethane	50.0	0.00	57.0	114
Carbon tetrachloride	50.0	0.00	59.0	118
1,1-Dichloropropene	50.0	0.00	54.2	108
1,2-Dichloroethane (EDC)	50.0	0.00	47.8	96
Benzene	50.0	0.00	48.1	96
Trichloroethene	50.0	0.00	49.7	99
1,2-Dichloropropane	50.0	0.00	46.8	94
Dibromomethane	50.0	0.00	47.9	96
1,4-Dioxane	1500	0.00	1320	88
Bromodichloromethane	50.0	0.00	55.0	110
2-Chloroethyl vinyl ether	50.0	0.00	41.5	83
cis-1,3-Dichloropropene	50.0	0.00	48.4	97
4-Methyl-2-pentanone (MIBK)	50.0	0.00	47.4	95
Toluene	50.0	0.00	47.4	95
trans-1,3-Dichloropropene	50.0	0.00	63.7	127
1,1,2-Trichloroethane	50.0	0.00	46.7	93
Tetrachloroethene	50.0	0.00	50.2	100
1,3-Dichloropropane	50.0	0.00	45.0	90

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130918
Date Received:
Date Analyzed: 09/18/2013
LCS Data file: L9361.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
2-Hexanone	50.0	0.00	46.8	94
Dibromochloromethane	50.0	0.00	53.7	107
1,2-Dibromoethane (EDB)	50.0	0.00	51.9	104
Chlorobenzene	50.0	0.00	44.1	88
1,1,1,2-Tetrachloroethane	50.0	0.00	52.0	104
Ethylbenzene	50.0	0.00	46.2	92
m,p-Xylene	100.0	0.00	92.7	93
o-Xylene	50.0	0.00	45.6	91
Styrene	50.0	0.00	44.3	89
Bromoform	50.0	0.00	64.5	129
Isopropylbenzene	50.0	0.00	47.2	94
1,1,2,2-Tetrachloroethane	50.0	0.00	47.6	95
Bromobenzene	50.0	0.00	43.7	87
1,2,3-Trichloropropane	50.0	0.00	43.8	88
n-Propylbenzene	50.0	0.00	46.6	93
2-Chlorotoluene	50.0	0.00	44.6	89
1,3,5-Trimethylbenzene	50.0	0.00	45.7	91
4-Chlorotoluene	50.0	0.00	44.5	89
tert-Butylbenzene	50.0	0.00	45.9	92
1,2,4-Trimethylbenzene	50.0	0.00	44.1	88
sec-Butylbenzene	50.0	0.00	47.3	95
1,3-Dichlorobenzene	50.0	0.00	42.9	86
4-Isopropyltoluene	50.0	0.00	46.4	93
1,4-Dichlorobenzene	50.0	0.00	42.5	85
n-Butylbenzene	50.0	0.00	47.9	96
1,2-Dichlorobenzene	50.0	0.00	44.5	89
1,2-Dibromo-3-chloropropane	50.0	0.00	61.1	122
1,2,4-Trichlorobenzene	50.0	0.00	53.2	106
Hexachlorobutadiene	50.0	0.00	51.7	103
Naphthalene	50.0	0.00	53.1	106
1,2,3-Trichlorobenzene	50.0	0.00	63.4	127
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	59.3	119
Methyl acetate	50.0	0.00	50.2	100
Cyclohexane	50.0	0.00	46.7	93
Methylcyclohexane	50.0	0.00	53.1	106

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits
Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD

MS/MSD SPIKE REPORT

Lab ID: 08895-001
Client ID: VTS_C1
Date Received: 09/10/2013
Date Analyzed: 09/18/2013
MS Data file: L9362.D
MSD Data file: L9363.D

GC/MS Column: DB-624
Sample wt/vol: 0.045g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 12.5
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	63.6	127		59.1	118		7	
Chloromethane	50	0.0	53.3	107		54.8	110		3	
Vinyl chloride	50	0.0	55.5	111		56.4	113		2	
Bromomethane	50	0.0	60.1	120		59.5	119		1	
Chloroethane	50	0.0	58.9	118		59.0	118		0	
Trichlorofluoromethane	50	0.0	64.1	128		64.8	130		1	
Acrolein	150	0.0	128	85		142	95		10	
1,1-Dichloroethene	50	0.0	58.5	117		59.4	119		2	
Acetone	50	0.0	43.8	88		47.3	95		8	
Carbon disulfide	50	0.0	57.8	116		58.1	116		1	
Vinyl acetate	50	0.0	57.3	115		57.1	114		0	
Methylene chloride	50	0.0	53.9	108		56.0	112		4	
Acrylonitrile	150	0.0	189	126		178	119		6	
tert-Butyl alcohol (TBA)	100	0.0	97.0	97		105.5	106		8	
trans-1,2-Dichloroethene	50	0.0	59.5	119		60.4	121		2	
Methyl tert-butyl ether (MTE	50	0.0	49.0	98		49.9	100		2	
1,1-Dichloroethane	50	0.0	47.9	96		48.7	97		2	
Diisopropyl ether (DIPE)	50	0.0	44.9	90		45.9	92		2	
cis-1,2-Dichloroethene	50	0.0	46.5	93		47.8	96		3	
2,2-Dichloropropane	50	0.0	60.6	121		61.2	122		1	
2-Butanone (MEK)	50	0.0	43.7	87		45.4	91		4	
Bromochloromethane	50	0.0	45.9	92		47.6	95		4	
Chloroform	50	0.0	47.9	96		49.6	99		3	
1,1,1-Trichloroethane	50	0.0	54.1	108		54.5	109		1	
Carbon tetrachloride	50	0.0	64.3	129		63.7	127		1	
1,1-Dichloropropene	50	0.0	51.0	102		50.5	101		1	
1,2-Dichloroethane (EDC)	50	0.0	46.7	93		48.3	97		3	
Benzene	50	0.0	46.8	94		47.3	95		1	
Trichloroethene	50	0.0	48.1	96		48.8	98		1	
1,2-Dichloropropane	50	0.0	46.5	93		47.1	94		1	
Dibromomethane	50	0.0	47.0	94		47.9	96		2	
1,4-Dioxane	1,500	0.0	1424	95		1472	98		3	
Bromodichloromethane	50	0.0	54.1	108		55.6	111		3	
2-Chloroethyl vinyl ether	50	0.0	41.2	82		42.8	86		4	
cis-1,3-Dichloropropene	50	0.0	48.9	98		50.0	100		2	
4-Methyl-2-pentanone (MIBI	50	0.0	46.5	93		47.2	94		1	
Toluene	50	0.0	46.7	93		46.8	94		0	
trans-1,3-Dichloropropene	50	0.0	58.4	117		57.5	115		2	
1,1,2-Trichloroethane	50	0.0	46.5	93		47.6	95		2	
Tetrachloroethene	50	0.0	48.0	96		47.6	95		1	
1,3-Dichloropropane	50	0.0	45.0	90		46.3	93		3	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 08895-001
Client ID: VTS_C1
Date Received: 09/10/2013
Date Analyzed: 09/18/2013
MS Data file: L9362.D
MSD Data file: L9363.D

GC/MS Column: DB-624
Sample wt/vol: 0.045g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 12.5
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50	0.00	46.5	93		47.5	95		2	
Dibromochloromethane	50	0.00	54.2	108		55.2	110		2	
1,2-Dibromoethane (EDB)	50	0.00	50.9	102		52.4	105		3	
Chlorobenzene	50	0.00	43.4	87		43.9	88		1	
1,1,1,2-Tetrachloroethane	50	0.00	51.9	104		52.9	106		2	
Ethylbenzene	50	0.00	45.3	91		45.2	90		0	
m,p-Xylene	100	0.00	91.1	91		90.9	91		0	
o-Xylene	50	0.00	44.3	89		44.5	89		0	
Styrene	50	0.00	43.9	88		44.1	88		0	
Bromoform	50	0.00	64.6	129		62.9	126		3	
Isopropylbenzene	50	0.00	45.9	92		45.0	90		2	
1,1,2,2-Tetrachloroethane	50	0.00	47.4	95		47.0	94		1	
Bromobenzene	50	0.00	42.5	85		43.2	86		2	
1,2,3-Trichloropropane	50	0.00	43.2	86		44.1	88		2	
n-Propylbenzene	50	0.00	45.1	90		45.1	90		0	
2-Chlorotoluene	50	0.00	43.3	87		43.5	87		0	
1,3,5-Trimethylbenzene	50	0.00	44.3	89		44.6	89		1	
4-Chlorotoluene	50	0.00	43.1	86		43.7	87		1	
tert-Butylbenzene	50	0.00	44.0	88		43.9	88		0	
1,2,4-Trimethylbenzene	50	0.00	43.0	86		43.0	86		0	
sec-Butylbenzene	50	0.00	45.5	91		45.3	91		0	
1,3-Dichlorobenzene	50	0.00	41.4	83		42.0	84		1	
4-Isopropyltoluene	50	0.00	44.5	89		44.1	88		1	
1,4-Dichlorobenzene	50	0.00	41.6	83		42.2	84		1	
n-Butylbenzene	50	0.00	45.6	91		45.0	90		1	
1,2-Dichlorobenzene	50	0.00	43.5	87		44.0	88		1	
1,2-Dibromo-3-chloropropan	50	0.00	64.4	129		63.7	127		1	
1,2,4-Trichlorobenzene	50	0.00	52.0	104		52.3	105		1	
Hexachlorobutadiene	50	0.00	50.7	101		50.8	102		0	
Naphthalene	50	0.00	50.9	102		52.0	104		2	
1,2,3-Trichlorobenzene	50	0.00	63.9	128		64.7	129		1	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	62.9	126		61.0	122		3	
Methyl acetate	50	0.00	49.2	98		51.4	103		4	
Cyclohexane	50	0.00	42.7	85		41.3	83		3	
Methylcyclohexane	50	0.00	47.8	96		47.2	94		1	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: BLKS130919-01
Client ID: BLKS130919-01
Date Received:
Date Analyzed: 09/19/2013
MS Data file: F7678.D
MSD Data file: F7679.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	41.7	83		37.7	75		10	
Chloromethane	50	0.0	56.0	112		53.4	107		5	
Vinyl chloride	50	0.0	58.3	117		55.1	110		6	
Bromomethane	50	0.0	52.2	104		46.1	92		12	
Chloroethane	50	0.0	57.3	115		52.5	105		9	
Trichlorofluoromethane	50	0.0	58.9	118		48.4	97		20	
Acrolein	150	0.0	111	74		110	73		1	
1,1-Dichloroethene	50	0.0	55.3	111		50.4	101		9	
Acetone	50	0.0	51.0	102		44.3	89		14	
Carbon disulfide	50	0.0	64.2	128		57.1	114		12	
Vinyl acetate	50	0.0	64.7	129		55.8	112		15	
Methylene chloride	50	0.0	50.0	100		44.2	88		12	
Acrylonitrile	150	0.0	182	121		181	121		1	
tert-Butyl alcohol (TBA)	100	0.0	98.3	98		84.3	84		15	
trans-1,2-Dichloroethene	50	0.0	56.1	112		51.2	102		9	
Methyl tert-butyl ether (MTE	50	0.0	50.6	101		44.3	89		13	
1,1-Dichloroethane	50	0.0	57.4	115		52.0	104		10	
Diisopropyl ether (DIPE)	50	0.0	65.1	130		58.3	117		11	
cis-1,2-Dichloroethene	50	0.0	57.6	115		51.7	103		11	
2,2-Dichloropropane	50	0.0	59.5	119		49.8	100		18	
2-Butanone (MEK)	50	0.0	50.5	101		42.7	85		17	
Bromochloromethane	50	0.0	52.8	106		46.8	94		12	
Chloroform	50	0.0	55.5	111		48.2	96		14	
1,1,1-Trichloroethane	50	0.0	57.1	114		49.1	98		15	
Carbon tetrachloride	50	0.0	59.7	119		50.3	101		17	
1,1-Dichloropropene	50	0.0	60.6	121		51.6	103		16	
1,2-Dichloroethane (EDC)	50	0.0	51.7	103		43.3	87		18	
Benzene	50	0.0	59.6	119		51.7	103		14	
Trichloroethene	50	0.0	49.2	98		41.3	83		17	
1,2-Dichloropropane	50	0.0	59.1	118		52.8	106		11	
Dibromomethane	50	0.0	48.7	97		41.3	83		16	
1,4-Dioxane	1,500	0.0	1414	94		1497	100		6	
Bromodichloromethane	50	0.0	54.3	109		45.5	91		18	
2-Chloroethyl vinyl ether	50	0.0	49.0	98		44.7	89		9	
cis-1,3-Dichloropropene	50	0.0	58.7	117		51.4	103		13	
4-Methyl-2-pentanone (MIBI	50	0.0	53.6	107		45.1	90		17	
Toluene	50	0.0	57.8	116		51.0	102		13	
trans-1,3-Dichloropropene	50	0.0	56.4	113		49.0	98		14	
1,1,2-Trichloroethane	50	0.0	56.4	113		51.3	103		9	
Tetrachloroethene	50	0.0	51.4	103		44.8	90		14	
1,3-Dichloropropane	50	0.0	58.0	116		50.5	101		14	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: BLKS130919-01
Client ID: BLKS130919-01
Date Received:
Date Analyzed: 09/19/2013
MS Data file: F7678.D
MSD Data file: F7679.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50	0.00	46.4	93		38.5	77		19	
Dibromochloromethane	50	0.00	55.5	111		48.4	97		14	
1,2-Dibromoethane (EDB)	50	0.00	53.2	106		46.8	94		13	
Chlorobenzene	50	0.00	51.1	102		44.6	89		14	
1,1,1,2-Tetrachloroethane	50	0.00	52.6	105		43.6	87		19	
Ethylbenzene	50	0.00	56.0	112		48.1	96		15	
m,p-Xylene	100	0.00	102.1	102		87.8	88		15	
o-Xylene	50	0.00	53.2	106		45.9	92		15	
Styrene	50	0.00	53.1	106		46.1	92		14	
Bromoform	50	0.00	52.6	105		44.0	88		18	
Isopropylbenzene	50	0.00	55.9	112		46.6	93		18	
1,1,2,2-Tetrachloroethane	50	0.00	57.3	115		47.8	96		18	
Bromobenzene	50	0.00	51.3	103		43.6	87		16	
1,2,3-Trichloropropane	50	0.00	50.5	101		41.6	83		19	
n-Propylbenzene	50	0.00	57.5	115		47.9	96		18	
2-Chlorotoluene	50	0.00	55.7	111		46.5	93		18	
1,3,5-Trimethylbenzene	50	0.00	55.3	111		45.5	91		19	
4-Chlorotoluene	50	0.00	53.6	107		44.8	90		18	
tert-Butylbenzene	50	0.00	56.3	113		45.4	91		21	
1,2,4-Trimethylbenzene	50	0.00	55.1	110		45.5	91		19	
sec-Butylbenzene	50	0.00	57.8	116		47.6	95		19	
1,3-Dichlorobenzene	50	0.00	51.4	103		42.5	85		19	
4-Isopropyltoluene	50	0.00	55.8	112		45.9	92		19	
1,4-Dichlorobenzene	50	0.00	52.4	105		42.9	86		20	
n-Butylbenzene	50	0.00	58.3	117		46.5	93		23	
1,2-Dichlorobenzene	50	0.00	51.9	104		41.3	83		23	
1,2-Dibromo-3-chloropropan	50	0.00	48.9	98		37.5	75		26	
1,2,4-Trichlorobenzene	50	0.00	48.8	98		39.8	80		20	
Hexachlorobutadiene	50	0.00	50.5	101		40.4	81		22	
Naphthalene	50	0.00	54.9	110		42.6	85		25	
1,2,3-Trichlorobenzene	50	0.00	48.7	97		39.0	78		22	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	53.1	106		43.8	88		19	
Methyl acetate	50	0.00	49.6	99		42.1	84		16	
Cyclohexane	50	0.00	63.1	126		55.0	110		14	
Methylcyclohexane	50	0.00	63.9	128		54.5	109		16	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

VOLATILE METHOD BLANK SUMMARY

Lab File ID: L9351.D Instrument ID: MSD_L

Date Analyzed: 09/18/2013 Time Analyzed: 11:22

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SB-21-2_/5-5.5	08967-003	09/18/2013	12:49
SB-21-1_/5-5.5	08967-004	09/18/2013	13:15
B-2	09031-002	09/18/2013	13:42
VTS_C1	08895-001	09/18/2013	14:10
09162013-DRUM_	09104-001	09/18/2013	14:37
WC-1	09089-001	09/18/2013	15:05
SAMPLE_WC_1-1	09094-001	09/18/2013	15:32
LCS-50PPB	LCSS130918	09/18/2013	16:04
MS	08895-001MS	09/18/2013	16:31
MSD	08895-001MSD	09/18/2013	16:59
IB-3A/5-5.5	09079-005	09/18/2013	18:23
IB-3B/6-6.5	09079-006	09/18/2013	18:52
AOC-2-4/10-10.	09135-004	09/18/2013	20:15
AOC-2-3/11.5-1	09135-003	09/18/2013	20:41

FORM 4

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F7677.D Instrument ID: MSD_F

Date Analyzed: 09/19/2013 Time Analyzed: 13:09

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS-50PPB	LCSS130919-01	09/19/2013	13:39
LCSD-50PPB	LCSDS130919-01	09/19/2013	14:10
SR-46-SW-2RR	09216-006	09/19/2013	14:40
SR-10-SW-1	09216-008	09/19/2013	15:11
IB-5B/6-6.5	09079-010	09/19/2013	16:11
AOC-4/7.5-8	09135-005	09/19/2013	16:42
MW-1RR	09152-003	09/19/2013	17:12
B-1-1	09229-001	09/19/2013	17:43
B-1-2	09229-002	09/19/2013	18:13
B-2-1	09229-003	09/19/2013	18:44
B-2-2	09229-004	09/19/2013	19:14
B-3	09229-005	09/19/2013	19:45
B-4-1	09229-006	09/19/2013	20:15
B-4-2	09229-007	09/19/2013	20:46
B-5-1	09229-008	09/19/2013	21:16
B-5-2	09229-009	09/19/2013	21:46
B-6-2	09229-011	09/19/2013	22:47
B-6-3	09229-012	09/19/2013	23:17

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L9279.D BFB Injection Date: 09/12/2013

Inst ID: MSD_L BFB Injection Time: 11:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	18.7			
75	30.0 - 60.0% of mass 95	47.2			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.6	(	0.7	)1
174	Great than 50.0% of mass 95	83.8			
175	5.0 - 9.0% of mass 174	6.0	(	7.2	)1
176	95.0 - 101.0% of mass 174	80.4	(	95.9	)1
177	5.0 - 9.0% of mass 176	5.4	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC5	ICC5	L9282.D	09/12/2013	13:12
ICC2	ICC2	L9283.D	09/12/2013	13:47
ICC1	ICC1	L9284.D	09/12/2013	15:05
ICC20	ICC20	L9285.D	09/12/2013	15:32
ICC100	ICC100	L9286.D	09/12/2013	15:59
ICC150	ICC150	L9287.D	09/12/2013	16:27
ICC200	ICC200	L9288.D	09/12/2013	16:54
ICV100	ICV100	L9292.D	09/12/2013	19:37

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L9347.D

BFB Injection Date: 09/18/2013

Inst ID: MSD_L

BFB Injection Time: 9:34

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.2			
75	30.0 - 60.0% of mass 95	49.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.5			
173	Less than 2.0% of mass 174	0.7	(	0.8	)1
174	Great than 50.0% of mass 95	82.4			
175	5.0 - 9.0% of mass 174	6.0	(	7.3	)1
176	95.0 - 101.0% of mass 174	80.0	(	97.1	)1
177	5.0 - 9.0% of mass 176	5.2	(	6.5	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	L9348.D	09/18/2013	10:00
BLKS130918	BLKS130918	L9351.D	09/18/2013	11:22
SB-21-2_/5-5.5	08967-003	L9354.D	09/18/2013	12:49
SB-21-1_/5-5.5	08967-004	L9355.D	09/18/2013	13:15
B-2	09031-002	L9356.D	09/18/2013	13:42
VTS_C1	08895-001	L9357.D	09/18/2013	14:10
09162013-DRUM_	09104-001	L9358.D	09/18/2013	14:37
WC-1	09089-001	L9359.D	09/18/2013	15:05
SAMPLE_WC_1-1	09094-001	L9360.D	09/18/2013	15:32
LCS-50PPB	LCSS130918	L9361.D	09/18/2013	16:04
MS	08895-001MS	L9362.D	09/18/2013	16:31
MSD	08895-001MSD	L9363.D	09/18/2013	16:59
IB-3A/5-5.5	09079-005	L9366.D	09/18/2013	18:23
IB-3B/6-6.5	09079-006	L9367.D	09/18/2013	18:52
AOC-2-4/10-10.	09135-004	L9370.D	09/18/2013	20:15
AOC-2-3/11.5-1	09135-003	L9371.D	09/18/2013	20:41

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F7094.D

BFB Injection Date: 08/23/2013

Inst ID: MSD_F

BFB Injection Time: 11:01

m/z	Ion Abudance Criteria	Fail	%Relative Abundance			
50	15 - 40.0% of mass 95		29.6			
75	30.0 - 60.0% of mass 95		54.1			
95	Base peak, 100% relative abundance		100.0			
96	5.0 - 9.0% of mass 95		6.5			
173	Less than 2.0% of mass 174		0.0	(	0.0	)1
174	Great than 50.0% of mass 95		65.8			
175	5.0 - 9.0% of mass 174		5.0	(	7.6	)1
176	95.0 - 101.0% of mass 174	Fail	62.2	(	94.5	)1
177	5.0 - 9.0% of mass 176		4.0	(	6.5	)2
	1-Value is % mass 174	2-Value is % mass 176				

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICV1	ICV1	F7095.D	08/23/2013	11:36
ICC2	ICC2	F7096.D	08/23/2013	12:37
ICC5	ICC5	F7097.D	08/23/2013	13:07
ICC20	ICC20	F7098.D	08/23/2013	13:37
ICC100	ICC100	F7099.D	08/23/2013	14:07
ICC150	ICC150	F7100.D	08/23/2013	14:37
ICC200	ICC200	F7101.D	08/23/2013	15:08
ICV100	ICV100	F7102.D	08/23/2013	15:39

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F7674.D BFB Injection Date: 09/19/2013

Inst ID: MSD_F BFB Injection Time: 11:37

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	28.6			
75	30.0 - 60.0% of mass 95	45.3			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	65.2			
175	5.0 - 9.0% of mass 174	5.2	(	7.9	)1
176	95.0 - 101.0% of mass 174	62.7	(	96.2	)1
177	5.0 - 9.0% of mass 176	3.9	(	6.2	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	F7675.D	09/19/2013	12:07
BLKS130919-01	BLKS130919-01	F7677.D	09/19/2013	13:09
LCS-50PPB	LCSS130919-01	F7678.D	09/19/2013	13:39
LCSD-50PPB	LCSDS130919-01	F7679.D	09/19/2013	14:10
SR-46-SW-2RR	09216-006	F7681.D	09/19/2013	14:40
SR-10-SW-1	09216-008	F7682.D	09/19/2013	15:11
IB-5B/6-6.5	09079-010	F7684.D	09/19/2013	16:11
AOC-4/7.5-8	09135-005	F7685.D	09/19/2013	16:42
MW-1RR	09152-003	F7686.D	09/19/2013	17:12
B-1-1	09229-001	F7687.D	09/19/2013	17:43
B-1-2	09229-002	F7688.D	09/19/2013	18:13
B-2-1	09229-003	F7689.D	09/19/2013	18:44
B-2-2	09229-004	F7690.D	09/19/2013	19:14
B-3	09229-005	F7691.D	09/19/2013	19:45
B-4-1	09229-006	F7692.D	09/19/2013	20:15
B-4-2	09229-007	F7693.D	09/19/2013	20:46
B-5-1	09229-008	F7694.D	09/19/2013	21:16
B-5-2	09229-009	F7695.D	09/19/2013	21:46
B-6-2	09229-011	F7697.D	09/19/2013	22:47
B-6-3	09229-012	F7698.D	09/19/2013	23:17

Response Factor Report MSD-L

Method Path : C:\MSDCHEM\1\METHODS\
Method File : LM091213.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Fri Sep 13 16:44:41 2013
Response Via : Initial Calibration

Calibration Files
1 =L9284.D 2 =L9283.D 5 =L9282.D
20 =L9285.D 100 =L9286.D 200 =L9288.D 150 =L9287.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.156	0.169	0.161	0.188	0.184	0.180	0.177	0.174	6.92
3)	TP	Chloromethane	0.331	0.300	0.270	0.314	0.337	0.352	0.336	0.320	8.73
4)	C	Vinyl chloride	0.300	0.238	0.227	0.275	0.288	0.280	0.279	0.270	9.90
5)	T	Bromomethane	0.203	0.190	0.180	0.208	0.181	0.165	0.174	0.186	8.32
6)	T	Chloroethane	0.150	0.135	0.134	0.163	0.164	0.160	0.158	0.152	8.41
7)	T	Trichlorofluorome	0.341	0.362	0.352	0.403	0.415	0.370	0.387	0.376	7.23
8)	T	Acrolein	0.014	0.013	0.013	0.011	0.012	0.012	0.012	0.012	6.87
9)	MC	1,1-Dichloroethen	0.206	0.242	0.219	0.247	0.265	0.253	0.256	0.241	8.74
10)	T	Acetone		0.202	0.187	0.167	0.174	0.163	0.161	0.176	9.07
11)	T	Carbon disulfide	0.763	0.698	0.627	0.855	0.906	0.899	0.898	0.807	13.85
12)	T	Vinyl acetate	1.644	1.683	1.524	1.521	1.808	1.821	1.835	1.691	8.01
13)	T	Methylene chlorid		0.360	0.298	0.300	0.317	0.317	0.318	0.318	6.99
14)	T	Acrylonitrile	0.100	0.101	0.097	0.088	0.098	0.097	0.097	0.097	4.24
15)	T	tert-Butyl alcoho	0.024	0.027	0.027	0.028	0.033	0.033	0.032	0.029	12.56
16)	T	trans-1,2-Dichlor	0.305	0.265	0.242	0.299	0.322	0.317	0.318	0.296	10.28
17)	T	Methyl tert-butyl	1.092	1.259	1.045	0.973	1.088	1.064	1.059	1.083	8.05
18)	TP	1,1-Dichloroethan	0.777	0.743	0.702	0.783	0.859	0.862	0.863	0.798	8.08
19)	T	Diisopropyl ether	2.602	2.533	2.316	2.305	2.474	2.407	2.445	2.440	4.46
20)	T	cis-1,2-Dichloroe	0.533	0.523	0.456	0.488	0.535	0.532	0.532	0.514	5.98
21)	T	2,2-Dichloropropa	0.158	0.170	0.176	0.192	0.236	0.211	0.216	0.194	14.44
22)	T	2-Butanone (MEK)	0.381	0.377	0.349	0.318	0.347	0.322	0.325	0.345	7.49
23)	T	Bromochloromethan	0.268	0.288	0.261	0.257	0.285	0.285	0.282	0.275	4.62
25)	C	Chloroform	0.823	0.776	0.733	0.768	0.842	0.849	0.849	0.806	5.77
26)	T	1,1,1-Trichloroet	0.487	0.521	0.448	0.464	0.572	0.623	0.606	0.532	13.11
27)	T	Carbon tetrachlor	0.188	0.174	0.172	0.223	0.244	0.244	0.222	0.210	14.92
28)	T	1,1-Dichloroprope	0.450	0.420	0.441	0.543	0.575	0.552	0.567	0.507	13.16
29)	T	1,2-Dichloroethan	0.727	0.790	0.689	0.657	0.719	0.704	0.709	0.714	5.72
30)	S	1,2-Dichloroethan	0.562	0.563	0.542	0.541	0.550	0.545	0.542	0.549	1.73
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.279	1.258	1.153	1.300	1.394	1.366	1.401	1.307	6.77
33)	M	Trichloroethene	0.318	0.263	0.250	0.317	0.348	0.346	0.348	0.313	13.06
34)	C	1,2-Dichloropropa	0.339	0.331	0.321	0.329	0.367	0.363	0.370	0.346	5.88
35)	T	Dibromomethane	0.213	0.237	0.210	0.203	0.226	0.220	0.222	0.219	5.14
36)	T	1,4-Dioxane	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	12.41
37)	T	Bromodichlorometh	0.351	0.366	0.369	0.355	0.446	0.472	0.468	0.404	13.68
38)	T	2-Chloroethyl vin	0.187	0.217	0.171	0.166	0.189	0.182	0.183	0.185	8.76
39)	T	cis-1,3-Dichlorop	0.479	0.418	0.458	0.408	0.539	0.564	0.561	0.490	13.45
40)	T	4-Methyl-2-pentan	0.363	0.421	0.369	0.349	0.408	0.387	0.393	0.384	6.72
41)	S	Toluene-d8	1.241	1.228	1.246	1.263	1.262	1.257	1.247	1.249	1.03
42)	MC	Toluene	0.810	0.766	0.710	0.819	0.876	0.862	0.877	0.817	7.65
43)	T	trans-1,3-Dichlor	0.229	0.247	0.253	0.263	0.293	0.327	0.338	0.279	14.96
44)	T	1,1,2-Trichloroet	0.239	0.240	0.231	0.225	0.254	0.246	0.247	0.240	4.04
45)	T	Tetrachloroethene	0.283	0.236	0.204	0.286	0.310	0.302	0.308	0.276	14.67
46)	T	1,3-Dichloropropa	0.513	0.536	0.492	0.484	0.534	0.509	0.517	0.512	3.79
47)	T	2-Hexanone	0.278	0.320	0.285	0.296	0.355	0.342	0.343	0.317	9.78
48)	T	Dibromochlorometh	0.331	0.327	0.302	0.295	0.353	0.386	0.374	0.338	10.24
49)	T	1,2-Dibromoethane	0.299	0.242	0.238	0.257	0.332	0.326	0.329	0.289	14.64
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	TP	Chlorobenzene	1.021	0.947	0.870	0.911	0.985	0.978	0.989	0.957	5.44
52)	T	1,1,1,2-Tetrachlo	0.246	0.288	0.260	0.294	0.309	0.352	0.343	0.299	13.17

53)	C	Ethylbenzene	1.415	1.236	1.112	1.349	1.460	1.453	1.470	1.356	10.02
54)	T	m,p-Xylene	0.582	0.509	0.457	0.541	0.581	0.568	0.582	0.546	8.72
55)	T	o-Xylene	0.605	0.558	0.496	0.544	0.587	0.575	0.593	0.566	6.56
56)	T	Styrene	1.171	1.043	0.966	1.016	1.097	1.079	1.098	1.067	6.20
57)	TP	Bromoform		0.167	0.126	0.126	0.171	0.169	0.169	0.155	14.36
58)	T	Isopropylbenzene	1.155	1.024	0.870	1.127	1.211	1.217	1.225	1.118	11.65
59)	S	Bromofluorobenzen	0.548	0.556	0.546	0.547	0.547	0.552	0.542	0.548	0.85
60)	TP	1,1,2,2-Tetrachlo	0.363	0.384	0.336	0.329	0.358	0.342	0.344	0.351	5.38
61)	T	Bromobenzene	0.445	0.428	0.382	0.388	0.420	0.424	0.418	0.415	5.39
62)	T	1,2,3-Trichloropr	0.354	0.378	0.324	0.306	0.338	0.327	0.326	0.336	7.00
63)	T	n-Propylbenzene	1.357	1.089	0.929	1.185	1.268	1.250	1.267	1.192	11.95
64)	T	2-Chlorotoluene	1.053	0.898	0.784	0.862	0.925	0.928	0.927	0.911	8.94
65)	T	1,3,5-Trimethylbe	1.111	0.916	0.765	0.921	0.975	0.969	0.974	0.947	10.89
66)	T	4-Chlorotoluene	1.298	1.112	0.957	1.041	1.107	1.107	1.117	1.105	9.31
67)	T	tert-Butylbenzene	0.848	0.653	0.547	0.714	0.767	0.754	0.759	0.720	13.36
68)	T	1,2,4-Trimethylbe	1.263	1.038	0.858	0.980	1.033	1.028	1.036	1.034	11.61
69)	T	sec-Butylbenzene	1.094	0.817	0.684	0.918	0.956	0.930	0.945	0.906	14.04
70)	T	1,3-Dichlorobenze	0.831	0.707	0.598	0.610	0.656	0.662	0.661	0.675	11.50
71)	T	4-Isopropyltoluen	0.957	0.785	0.649	0.826	0.863	0.846	0.854	0.826	11.34
72)	T	1,4-Dichlorobenze	0.874	0.752	0.636	0.649	0.694	0.700	0.695	0.714	11.19
73)	T	n-Butylbenzene	0.440	0.353	0.276	0.357	0.368	0.351	0.363	0.358	13.27
74)	T	1,2-Dichlorobenze	0.811	0.729	0.619	0.622	0.638	0.623	0.628	0.667	11.12
75)	T	1,2-Dibromo-3-chl		0.023	0.019	0.023	0.020	0.022	0.020	0.021	8.18
76)	T	1,2,4-Trichlorobe	0.244	0.247	0.233	0.278	0.253	0.249	0.252	0.251	5.44
77)	T	Hexachlorobutadie		0.099	0.101	0.112	0.093	0.088	0.090	0.097	9.35
78)	T	Naphthalene	0.811	0.779	0.787	0.783	0.709	0.664	0.663	0.742	8.37
79)	T	1,2,3-Trichlorobe	0.198	0.205	0.150	0.233	0.202	0.193	0.194	0.196	12.54
80)	T	1,1,2-Trichloro-1	0.113	0.110	0.090	0.137	0.143	0.117	0.130	0.120	14.96
81)	T	Methyl acetate	0.176	0.142	0.136	0.123	0.145	0.147	0.144	0.145	11.00
82)	T	Cyclohexane		0.388	0.329	0.352	0.338	0.281	0.312	0.333	10.91
83)	T	Methylcyclohexane	0.168	0.170	0.141	0.212	0.216	0.176	0.197	0.183	14.85

(#) = Out of Range ### Number of calibration levels exceeded format ###

LM091213.M Fri Sep 13 16:44:47 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-12-13\
Data File : L9292.D
Acq On : 12 Sep 2013 19:37
Operator : MEI
Sample : ICV100,ICV100,A,5ml,100
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 13 16:47:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Fri Sep 13 16:45:24 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	93	0.00
2	T	Dichlorodifluoromethane	0.174	0.204	-17.2	103	0.00
3	TP	Chloromethane	0.320	0.363	-13.4	100	0.00
4	C	Vinyl chloride	0.270	0.305	-13.0	98	0.00
5	T	Bromomethane	0.186	0.206	-10.8	106	0.00
6	T	Chloroethane	0.152	0.179	-17.8	101	0.00
7	T	Trichlorofluoromethane	0.376	0.438	-16.5	98	0.00
8	T	Acrolein	0.012	0.012	0.0	90	0.00
9	MC	1,1-Dichloroethene	0.241	0.280	-16.2	98	0.00
10	T	Acetone	0.176	0.160	9.1	85	0.00
11	T	Carbon disulfide	0.807	0.950	-17.7	97	0.01
12	T	Vinyl acetate	1.691	1.825	-7.9	94	0.00
13	T	Methylene chloride	0.318	0.340	-6.9	100	0.00
14	T	Acrylonitrile	0.097	0.097	0.0	91	0.00
15	T	tert-Butyl alcohol (TBA)	0.029	0.032	-10.3	91	0.00
16	T	trans-1,2-Dichloroethene	0.296	0.346	-16.9	100	0.01
17	T	Methyl tert-butyl ether (MT	1.083	1.081	0.2	92	0.00
18	TP	1,1-Dichloroethane	0.798	0.893	-11.9	97	0.00
19	T	Diisopropyl ether (DIPE)	2.440	2.591	-6.2	97	0.01
20	T	cis-1,2-Dichloroethene	0.514	0.557	-8.4	97	0.00
21	T	2,2-Dichloropropane	0.194	0.229	-18.0	90	0.00
22	T	2-Butanone (MEK)	0.345	0.338	2.0	90	0.00
23	T	Bromochloromethane	0.275	0.291	-5.8	95	0.00
25	C	Chloroform	0.806	0.882	-9.4	97	0.00
26	T	1,1,1-Trichloroethane	0.532	0.598	-12.4	97	0.00
27	T	Carbon tetrachloride	0.210	0.250	-19.0	95	0.00
28	T	1,1-Dichloropropene	0.507	0.595	-17.4	96	0.00
29	T	1,2-Dichloroethane (EDC)	0.714	0.743	-4.1	96	0.00
30	S	1,2-Dichloroethane-d4	0.549	0.556	-1.3	94	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00
32	M	Benzene	1.307	1.435	-9.8	97	0.00
33	M	Trichloroethene	0.313	0.360	-15.0	97	0.00
34	C	1,2-Dichloropropane	0.346	0.376	-8.7	96	0.00
35	T	Dibromomethane	0.219	0.228	-4.1	95	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	79	0.00
37	T	Bromodichloromethane	0.404	0.471	-16.6	99	0.00
38	T	2-Chloroethyl vinyl ether	0.185	0.186	-0.5	93	0.00
39	T	cis-1,3-Dichloropropene	0.490	0.537	-9.6	94	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.384	0.400	-4.2	92	0.00
41	S	Toluene-d8	1.249	1.265	-1.3	94	0.00
42	MC	Toluene	0.817	0.896	-9.7	96	0.00
43	T	trans-1,3-Dichloropropene	0.279	0.325	-16.5	104	0.00
44	T	1,1,2-Trichloroethane	0.240	0.251	-4.6	93	0.00
45	T	Tetrachloroethene	0.276	0.313	-13.4	95	0.00
46	T	1,3-Dichloropropane	0.512	0.525	-2.5	93	0.00

47	T	2-Hexanone	0.317	0.343	-8.2	91	0.00
48	T	Dibromochloromethane	0.338	0.372	-10.1	99	0.00
49	T	1,2-Dibromoethane (EDB)	0.289	0.330	-14.2	94	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00
51	TP	Chlorobenzene	0.957	1.003	-4.8	95	0.00
52	T	1,1,1,2-Tetrachloroethane	0.299	0.332	-11.0	100	0.00
53	C	Ethylbenzene	1.356	1.495	-10.3	95	0.00
54	T	m,p-Xylene	0.546	0.597	-9.3	96	0.00
55	T	o-Xylene	0.566	0.609	-7.6	97	0.00
56	T	Styrene	1.067	1.125	-5.4	96	0.00
57	TP	Bromoform	0.155	0.180	-16.1	98	0.00
58	T	Isopropylbenzene	1.118	1.242	-11.1	96	0.00
59	S	Bromofluorobenzene	0.548	0.544	0.7	93	0.00
60	TP	1,1,2,2-Tetrachloroethane	0.351	0.348	0.9	91	0.00
61	T	Bromobenzene	0.415	0.429	-3.4	95	0.00
62	T	1,2,3-Trichloropropane	0.336	0.333	0.9	92	0.00
63	T	n-Propylbenzene	1.192	1.291	-8.3	95	0.00
64	T	2-Chlorotoluene	0.911	0.942	-3.4	95	0.00
65	T	1,3,5-Trimethylbenzene	0.947	0.998	-5.4	95	0.00
66	T	4-Chlorotoluene	1.105	1.133	-2.5	95	0.00
67	T	tert-Butylbenzene	0.720	0.751	-4.3	91	0.00
68	T	1,2,4-Trimethylbenzene	1.034	1.049	-1.5	95	0.00
69	T	sec-Butylbenzene	0.906	0.966	-6.6	94	0.00
70	T	1,3-Dichlorobenzene	0.675	0.670	0.7	95	0.00
71	T	4-Isopropyltoluene	0.826	0.868	-5.1	94	0.00
72	T	1,4-Dichlorobenzene	0.714	0.713	0.1	96	0.00
73	T	n-Butylbenzene	0.358	0.371	-3.6	94	0.00
74	T	1,2-Dichlorobenzene	0.667	0.648	2.8	95	0.00
75	T	1,2-Dibromo-3-chloropropane	0.021	0.025	-19.0	116	0.01
76	T	1,2,4-Trichlorobenzene	0.251	0.253	-0.8	93	0.00
77	T	Hexachlorobutadiene	0.097	0.092	5.2	93	0.00
78	T	Naphthalene	0.742	0.699	5.8	92	0.00
79	T	1,2,3-Trichlorobenzene	0.196	0.199	-1.5	92	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.120	0.133	-10.8	87	0.00
81	T	Methyl acetate	0.145	0.151	-4.1	97	0.01
82	T	Cyclohexane	0.333	0.332	0.3	92	0.00
83	T	Methylcyclohexane	0.183	0.209	-14.2	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LM091213.M Fri Sep 13 16:48:00 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9348.D
Acq On : 18 Sep 2013 10:00
Operator : MEI
Sample : CCV100,CCV100,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 19 14:11:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 17 10:42:49 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	123	0.00
2	T	Dichlorodifluoromethane	0.174	0.203	-16.7	136	0.00
3	TP	Chloromethane	0.320	0.340	-6.3	125	0.00
4	C	Vinyl chloride	0.270	0.301	-11.5	129	0.00
5	T	Bromomethane	0.186	0.218	-17.2	149	0.00
6	T	Chloroethane	0.152	0.173	-13.8	130	0.00
7	T	Trichlorofluoromethane	0.376	0.429	-14.1	127	0.00
8	T	Acrolein	0.012	0.012	0.0	122	-0.01
9	MC	1,1-Dichloroethene	0.241	0.281	-16.6	131	-0.01
10	T	Acetone	0.176	0.194	-10.2	137	-0.01
11	T	Carbon disulfide	0.807	0.931	-15.4	127	0.00
12	T	Vinyl acetate	1.691	1.833	-8.4	125	-0.02
13	T	Methylene chloride	0.318	0.339	-6.6	132	0.00
14	T	Acrylonitrile	0.097	0.092	5.2	115	-0.01
15	T	tert-Butyl alcohol (TBA)	0.029	0.032	-10.3	118	-0.01
16	T	trans-1,2-Dichloroethene	0.296	0.349	-17.9	133	0.00
17	T	Methyl tert-butyl ether (MT	1.083	1.042	3.8	118	-0.01
18	TP	1,1-Dichloroethane	0.798	0.736	7.8	106	0.00
19	T	Diisopropyl ether (DIPE)	2.440	2.067	15.3	103	0.00
20	T	cis-1,2-Dichloroethene	0.514	0.471	8.4	109	-0.01
21	T	2,2-Dichloropropane	0.194	0.215	-10.8	112	-0.01
22	T	2-Butanone (MEK)	0.345	0.306	11.3	109	-0.01
23	T	Bromochloromethane	0.275	0.245	10.9	106	-0.01
25	C	Chloroform	0.806	0.759	5.8	111	0.00
26	T	1,1,1-Trichloroethane	0.532	0.598	-12.4	129	0.00
27	T	Carbon tetrachloride	0.210	0.245	-16.7	124	-0.01
28	T	1,1-Dichloropropene	0.507	0.500	1.4	107	-0.01
29	T	1,2-Dichloroethane (EDC)	0.714	0.629	11.9	108	-0.01
30	S	1,2-Dichloroethane-d4	0.549	0.530	3.5	119	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	-0.01
32	M	Benzene	1.307	1.344	-2.8	105	-0.01
33	M	Trichloroethene	0.313	0.330	-5.4	103	0.00
34	C	1,2-Dichloropropane	0.346	0.340	1.7	101	0.00
35	T	Dibromomethane	0.219	0.226	-3.2	109	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	99	-0.01
37	T	Bromodichloromethane	0.404	0.478	-18.3	117	-0.01
38	T	2-Chloroethyl vinyl ether	0.185	0.156	15.7	90	0.00
39	T	cis-1,3-Dichloropropene	0.490	0.534	-9.0	108	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.384	0.379	1.3	101	-0.01
41	S	Toluene-d8	1.249	1.314	-5.2	113	0.00
42	MC	Toluene	0.817	0.826	-1.1	103	-0.01
43	T	trans-1,3-Dichloropropene	0.279	0.331	-18.6	123	0.00
44	T	1,1,2-Trichloroethane	0.240	0.236	1.7	101	0.00
45	T	Tetrachloroethene	0.276	0.294	-6.5	103	0.00
46	T	1,3-Dichloropropane	0.512	0.482	5.9	98	0.00

47	T	2-Hexanone	0.317	0.334	-5.4	102	0.00
48	T	Dibromochloromethane	0.338	0.398	-17.8	123	0.00
49	T	1,2-Dibromoethane (EDB)	0.289	0.318	-10.0	104	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	115	0.00
51	TP	Chlorobenzene	0.957	0.878	8.3	103	0.00
52	T	1,1,1,2-Tetrachloroethane	0.299	0.347	-16.1	129	0.00
53	C	Ethylbenzene	1.356	1.344	0.9	106	0.00
54	T	m,p-Xylene	0.546	0.541	0.9	107	0.00
55	T	o-Xylene	0.566	0.553	2.3	109	-0.01
56	T	Styrene	1.067	1.015	4.9	107	0.00
57	TP	Bromoform	0.155	0.181	-16.8	122	-0.01
58	T	Isopropylbenzene	1.118	1.148	-2.7	109	0.00
59	S	Bromofluorobenzene	0.548	0.540	1.5	114	0.00
60	TP	1,1,2,2-Tetrachloroethane	0.351	0.350	0.3	113	0.00
61	T	Bromobenzene	0.415	0.391	5.8	107	0.00
62	T	1,2,3-Trichloropropane	0.336	0.305	9.2	104	0.00
63	T	n-Propylbenzene	1.192	1.218	-2.2	111	0.00
64	T	2-Chlorotoluene	0.911	0.859	5.7	107	0.00
65	T	1,3,5-Trimethylbenzene	0.947	0.947	0.0	112	0.00
66	T	4-Chlorotoluene	1.105	1.066	3.5	111	0.00
67	T	tert-Butylbenzene	0.720	0.716	0.6	108	0.00
68	T	1,2,4-Trimethylbenzene	1.034	0.987	4.5	110	-0.01
69	T	sec-Butylbenzene	0.906	0.950	-4.9	115	0.00
70	T	1,3-Dichlorobenzene	0.675	0.610	9.6	107	0.00
71	T	4-Isopropyltoluene	0.826	0.847	-2.5	113	0.00
72	T	1,4-Dichlorobenzene	0.714	0.651	8.8	108	0.00
73	T	n-Butylbenzene	0.358	0.377	-5.3	118	0.00
74	T	1,2-Dichlorobenzene	0.667	0.606	9.1	110	0.00
75	T	1,2-Dibromo-3-chloropropane	0.021	0.025	-19.0	142	0.01
76	T	1,2,4-Trichlorobenzene	0.251	0.228	9.2	104	0.00
77	T	Hexachlorobutadiene	0.097	0.088	9.3	110	0.00
78	T	Naphthalene	0.742	0.614	17.3	100	0.00
79	T	1,2,3-Trichlorobenzene	0.196	0.188	4.1	107	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.120	0.137	-14.2	111	-0.01
81	T	Methyl acetate	0.145	0.162	-11.7	129	0.00
82	T	Cyclohexane	0.333	0.307	7.8	105	0.00
83	T	Methylcyclohexane	0.183	0.202	-10.4	107	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LM091213.M Thu Sep 19 14:11:16 2013 RPT1

Response Factor Report MSD_F

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Mon Aug 26 16:00:01 2013
Response Via : Initial Calibration

Calibration Files
1 =F7095.D 2 =F7096.D 5 =F7097.D
20 =F7098.D 100 =F7099.D 200 =F7101.D 150 =F7100.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------						
2)	T	Dichlorodifluorom	1.125	1.318	1.170	0.985	1.022	0.927	0.984	1.076	12.69
3)	P	Chloromethane	0.709	0.926	0.735	0.707	0.737	0.654	0.691	0.737	11.93
4)	C	Vinyl chloride	0.728	1.066	0.901	0.842	0.883	0.782	0.839	0.863	12.41
5)	T	Bromomethane	0.551	0.739	0.696	0.661	0.691	0.536	0.626	0.643	11.82
6)	T	Chloroethane	0.456	0.686	0.564	0.519	0.551	0.493	0.534	0.543	13.43
7)	T	Trichlorofluorome	1.601	1.729	1.894	1.728	1.694	1.437	1.531	1.659	9.05
8)	T	Acrolein	0.060	0.075	0.062	0.062	0.072	0.056	0.060	0.064	10.88
9)	MC	1,1-Dichloroethen	1.031	1.116	0.853	0.829	0.828	0.774	0.788	0.888	14.82
10)	T	Acetone			0.370	0.438	0.392	0.379	0.347	0.385	8.73
11)	T	Carbon disulfide	2.087	3.115	2.612	2.573	2.708	2.452	2.542	2.584	11.87
12)	T	Vinyl acetate	1.692	2.592	2.273	2.340	2.666	2.162	2.335	2.294	13.91
13)	T	Methylene chlorid		1.361	1.013	1.037	1.035	1.006	0.975	1.071	13.42
14)	T	Acrylonitrile	0.195	0.201	0.183	0.183	0.210	0.181	0.190	0.192	5.69
15)	T	tert-Butyl alcoho		0.134	0.145	0.119	0.123	0.097	0.105	0.120	14.82
16)	T	trans-1,2-Dichlor	0.589	0.719	0.597	0.570	0.581	0.576	0.575	0.601	8.77
17)	T	Methyl tert-butyl	2.443	2.826	2.487	2.401	2.534	2.402	2.397	2.498	6.13
18)	P	1,1-Dichloroethan	1.052	1.406	1.197	1.179	1.251	1.163	1.155	1.200	9.06
19)	T	Diisopropyl ether	1.919	2.459	2.257	2.353	2.542	2.433	2.419	2.340	8.79
20)	T	cis-1,2-Dichloroe	0.506	0.649	0.559	0.537	0.577	0.587	0.560	0.568	7.87
21)	T	2,2-Dichloropropa	1.104	1.211	1.122	1.093	1.180	0.978	1.052	1.106	7.03
22)	T	2-Butanone (MEK)		0.408	0.464	0.404	0.413	0.349	0.363	0.400	10.18
23)	T	Bromochloromethan	0.269	0.283	0.211	0.214	0.224	0.226	0.220	0.235	12.22
25)	C	Chloroform	1.412	1.817	1.483	1.533	1.552	1.448	1.446	1.527	8.97
26)	T	1,1,1-Trichloroet	1.239	1.857	1.629	1.552	1.691	1.515	1.557	1.577	11.95
27)	T	Carbon tetrachlor	1.139	1.508	1.335	1.338	1.543	1.401	1.437	1.386	9.69
28)	T	1,1-Dichloroprope	0.909	1.252	0.970	0.948	1.060	1.025	1.022	1.027	10.89
29)	T	1,2-Dichloroethan	1.693	2.104	1.771	1.659	1.694	1.487	1.563	1.710	11.53
30)	S	1,2-Dichloroethan	1.538	1.341	1.336	1.311	1.239	1.088	1.148	1.286	11.46
31)	I	1,4-Difluorobenzene	----------	ISTD	----------						
32)	M	Benzene	1.337	2.099	1.777	1.799	2.003	2.071	1.995	1.869	14.23
33)	M	Trichloroethene	0.712	0.682	0.573	0.568	0.631	0.633	0.619	0.631	8.39
34)	C	1,2-Dichloropropa	0.407	0.495	0.432	0.417	0.465	0.466	0.453	0.448	6.94
35)	T	Dibromomethane	0.375	0.434	0.394	0.378	0.389	0.363	0.373	0.387	6.04
36)	T	1,4-Dioxane	0.004	0.004	0.004	0.004	0.005	0.004	0.004	0.004	9.75
37)	T	Bromodichlorometh	0.768	1.047	0.920	0.969	1.075	1.031	1.053	0.980	11.02
38)	T	2-Chloroethyl vin	0.195	0.251	0.201	0.190	0.238	0.228	0.231	0.219	10.79
39)	T	cis-1,3-Dichlorop	0.646	0.818	0.748	0.825	0.951	0.917	0.931	0.834	13.25
40)	T	4-Methyl-2-pentan	0.498	0.543	0.525	0.548	0.622	0.547	0.571	0.551	7.03
41)	S	Toluene-d8	1.606	1.556	1.585	1.577	1.598	1.535	1.605	1.580	1.68
42)	MC	Toluene	1.001	1.360	1.174	1.151	1.325	1.326	1.309	1.235	10.62
43)	T	trans-1,3-Dichlor	0.717	0.943	0.850	0.929	1.109	1.009	1.051	0.944	13.91
44)	T	1,1,2-Trichloroet	0.248	0.351	0.305	0.298	0.333	0.322	0.323	0.312	10.55
45)	T	Tetrachloroethene	0.653	0.713	0.576	0.526	0.597	0.573	0.585	0.603	10.15
46)	T	1,3-Dichloropropa	0.673	0.768	0.698	0.735	0.833	0.791	0.803	0.757	7.69
47)	T	2-Hexanone	0.572	0.548	0.548	0.562	0.618	0.533	0.560	0.563	4.87
48)	T	Dibromochlorometh	0.442	0.473	0.466	0.511	0.609	0.580	0.592	0.525	12.95
49)	T	1,2-Dibromoethane	0.373	0.443	0.402	0.369	0.442	0.417	0.414	0.408	7.27
50)	I	Chlorobenzene-d5	----------	ISTD	----------						
51)	MP	Chlorobenzene	1.460	1.707	1.298	1.304	1.434	1.469	1.439	1.444	9.43
52)	T	1,1,1,2-Tetrachlo	0.426	0.608	0.534	0.547	0.615	0.623	0.620	0.571	11.34

53)	C	Ethylbenzene	2.374	3.237	2.771	2.846	3.326	3.377	3.300	3.033	12.44
54)	T	m,p-Xylene	1.024	1.076	1.251	0.929	1.140	1.212	1.157	1.113	10.04
55)	T	o-Xylene	1.011	0.951	0.851	0.867	1.070	1.126	1.085	0.995	10.85
56)	T	Styrene	1.574	1.645	1.436	1.525	1.895	2.025	1.910	1.716	13.15
57)	P	Bromoform	0.298	0.351	0.309	0.349	0.432	0.434	0.425	0.371	15.80
58)	T	Isopropylbenzene	2.841	2.920	2.616	2.886	3.383	3.430	3.370	3.064	10.60
59)	S	Bromofluorobenzen	0.915	0.933	0.942	0.967	0.937	0.896	0.917	0.930	2.47
60)	P	1,1,2,2-Tetrachlo	0.434	0.642	0.514	0.528	0.625	0.591	0.590	0.561	13.00
61)	T	Bromobenzene	0.632	0.725	0.538	0.611	0.689	0.710	0.674	0.654	9.97
62)	T	1,2,3-Trichloropr	0.807	0.914	0.794	0.770	0.818	0.748	0.761	0.802	6.93
63)	T	n-Propylbenzene	2.931	4.095	3.317	3.530	4.049	4.044	3.960	3.704	12.23
64)	T	2-Chlorotoluene	2.004	2.694	2.274	2.358	2.656	2.607	2.571	2.452	10.25
65)	T	1,3,5-Trimethylbe	2.503	3.018	2.650	2.875	3.335	3.347	3.300	3.004	11.44
66)	T	4-Chlorotoluene	2.682	2.694	2.274	2.358	2.656	2.607	2.571	2.549	6.53
67)	T	tert-Butylbenzene	1.984	2.116	1.798	1.915	2.267	2.367	2.299	2.107	10.20
68)	T	1,2,4-Trimethylbe	2.378	3.233	2.702	2.964	3.355	3.322	3.232	3.027	12.14
69)	T	sec-Butylbenzene	2.893	3.644	3.032	3.152	3.644	3.726	3.623	3.388	10.28
70)	T	1,3-Dichlorobenze	1.309	1.510	1.211	1.217	1.366	1.383	1.331	1.332	7.75
71)	T	4-Isopropyltoluen	2.495	2.879	2.394	2.609	3.020	3.061	2.971	2.775	9.78
72)	T	1,4-Dichlorobenze	1.351	1.532	1.162	1.246	1.410	1.422	1.378	1.357	8.94
73)	T	n-Butylbenzene	1.414	1.589	1.369	1.500	1.762	1.797	1.741	1.596	10.95
74)	T	1,2-Dichlorobenze	1.220	1.523	1.111	1.213	1.377	1.413	1.354	1.316	10.71
75)	T	1,2-Dibromo-3-chl	0.206	0.202	0.181	0.202	0.228	0.200	0.203	0.203	6.86
76)	T	1,2,4-Trichlorobe	1.017	1.116	0.838	0.946	1.069	1.044	1.025	1.008	9.04
77)	T	Hexachlorobutadie	0.775	1.027	0.782	0.813	0.810	0.789	0.797	0.828	10.78
78)	T	Naphthalene	1.662	1.717	1.488	1.813	1.992	1.992	1.936	1.800	10.53
79)	T	1,2,3-Trichlorobe	1.130	1.053	0.862	0.901	0.926	0.911	0.901	0.955	10.26
80)	T	1,1,2-Trichloro-1	0.789	0.922	0.877	0.749	0.690	0.658	0.662	0.764	13.71
81)	T	Methyl acetate	0.506	0.510	0.486	0.457	0.433	0.405	0.416	0.459	9.29
82)	T	Cyclohexane			0.755	0.855	0.794	0.817	0.790	0.802	4.63
83)	T	Methylcyclohexane			0.780	0.780	0.815	0.837	0.800	0.803	3.02

(#) = Out of Range ### Number of calibration levels exceeded format ###

FSO0823.M Mon Aug 26 16:00:09 2013 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\08-23-13\
Data File : F7102.D
Acq On : 23 Aug 2013 15:39
Operator : XING
Sample : ICV100,ICV100,S,5g,0
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 26 16:03:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Aug 26 16:00:01 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	103	0.01
2	T	Dichlorodifluoromethane	1.076	1.130	-5.0	114	0.00
3	P	Chloromethane	0.737	0.694	5.8	97	0.01
4	C	Vinyl chloride	0.863	0.713	17.4	83	0.00
5	T	Bromomethane	0.643	0.611	5.0	91	0.00
6	T	Chloroethane	0.543	0.483	11.0	90	0.00
7	T	Trichlorofluoromethane	1.659	1.526	8.0	93	-0.01
8	T	Acrolein	0.064	0.060	6.3	86	0.01
9	MC	1,1-Dichloroethene	0.888	0.729	17.9	90	0.01
10	T	Acetone	0.385	0.364	5.5	95	0.00
11	T	Carbon disulfide	2.584	2.393	7.4	91	0.00
12	T	Vinyl acetate	2.294	2.658	-15.9	102	0.00
13	T	Methylene chloride	1.071	0.872	18.6	87	0.00
14	T	Acrylonitrile	0.192	0.201	-4.7	98	0.00
15	T	tert-Butyl alcohol (TBA)	0.120	0.120	0.0	100	-0.01
16	T	trans-1,2-Dichloroethene	0.601	0.554	7.8	98	0.00
17	T	Methyl tert-butyl ether (MT	2.498	2.485	0.5	101	0.00
18	P	1,1-Dichloroethane	1.200	1.183	1.4	97	0.00
19	T	Diisopropyl ether (DIPE)	2.340	2.470	-5.6	100	0.00
20	T	cis-1,2-Dichloroethene	0.568	0.562	1.1	100	0.00
21	T	2,2-Dichloropropane	1.106	1.064	3.8	93	0.00
22	T	2-Butanone (MEK)	0.400	0.378	5.5	94	0.00
23	T	Bromochloromethane	0.235	0.219	6.8	100	0.00
25	C	Chloroform	1.527	1.524	0.2	101	0.00
26	T	1,1,1-Trichloroethane	1.577	1.591	-0.9	97	0.00
27	T	Carbon tetrachloride	1.386	1.452	-4.8	97	0.00
28	T	1,1-Dichloropropene	1.027	1.017	1.0	99	0.01
29	T	1,2-Dichloroethane (EDC)	1.710	1.682	1.6	102	0.00
30	S	1,2-Dichloroethane-d4	1.286	1.241	3.5	103	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	103	0.00
32	M	Benzene	1.869	1.943	-4.0	100	0.00
33	M	Trichloroethene	0.631	0.618	2.1	101	0.00
34	C	1,2-Dichloropropane	0.448	0.459	-2.5	102	0.00
35	T	Dibromomethane	0.387	0.395	-2.1	104	0.00
36	T	1,4-Dioxane	0.004	0.004	0.0	79	0.00
37	T	Bromodichloromethane	0.980	1.094	-11.6	104	0.00
38	T	2-Chloroethyl vinyl ether	0.219	0.237	-8.2	102	0.00
39	T	cis-1,3-Dichloropropene	0.834	0.953	-14.3	103	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.551	0.612	-11.1	101	0.00
41	S	Toluene-d8	1.580	1.608	-1.8	103	0.00
42	MC	Toluene	1.235	1.305	-5.7	101	0.00
43	T	trans-1,3-Dichloropropene	0.944	1.091	-15.6	101	0.00
44	T	1,1,2-Trichloroethane	0.312	0.337	-8.0	104	0.00
45	T	Tetrachloroethene	0.603	0.586	2.8	101	0.00
46	T	1,3-Dichloropropane	0.757	0.836	-10.4	103	0.00

47	T	2-Hexanone	0.563	0.566	-0.5	94	0.00
48	T	Dibromochloromethane	0.525	0.615	-17.1	104	0.00
49	T	1,2-Dibromoethane (EDB)	0.408	0.436	-6.9	101	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
51	MP	Chlorobenzene	1.444	1.395	3.4	100	0.00
52	T	1,1,1,2-Tetrachloroethane	0.567	0.608	-7.2	101	0.00
53	C	Ethylbenzene	3.033	3.243	-6.9	100	0.00
54	T	m,p-Xylene	1.113	1.124	-1.0	101	0.00
55	T	o-Xylene	0.995	1.058	-6.3	101	0.00
56	T	Styrene	1.716	1.852	-7.9	100	0.00
57	P	Bromoform	0.371	0.429	-15.6	102	0.00
58	T	Isopropylbenzene	3.064	3.257	-6.3	99	0.00
59	S	Bromofluorobenzene	0.930	0.957	-2.9	105	0.00
60	P	1,1,2,2-Tetrachloroethane	0.561	0.607	-8.2	100	0.00
61	T	Bromobenzene	0.654	0.682	-4.3	101	0.00
62	T	1,2,3-Trichloropropane	0.802	0.796	0.7	100	0.00
63	T	n-Propylbenzene	3.704	3.910	-5.6	99	0.00
64	T	2-Chlorotoluene	2.452	2.566	-4.6	99	0.00
65	T	1,3,5-Trimethylbenzene	3.004	3.241	-7.9	100	0.00
66	T	4-Chlorotoluene	2.549	2.566	-0.7	99	-0.13
67	T	tert-Butylbenzene	2.107	2.210	-4.9	100	0.00
68	T	1,2,4-Trimethylbenzene	3.027	3.217	-6.3	98	0.00
69	T	sec-Butylbenzene	3.388	3.507	-3.5	99	0.00
70	T	1,3-Dichlorobenzene	1.332	1.334	-0.2	100	0.00
71	T	4-Isopropyltoluene	2.775	2.900	-4.5	98	0.00
72	T	1,4-Dichlorobenzene	1.357	1.380	-1.7	100	0.00
73	T	n-Butylbenzene	1.596	1.719	-7.7	100	0.00
74	T	1,2-Dichlorobenzene	1.316	1.334	-1.4	99	0.00
75	T	1,2-Dibromo-3-chloropropane	0.203	0.216	-6.4	97	0.00
76	T	1,2,4-Trichlorobenzene	1.008	0.980	2.8	94	0.00
77	T	Hexachlorobutadiene	0.828	0.746	9.9	94	0.00
78	T	Naphthalene	1.800	1.759	2.3	90	0.00
79	T	1,2,3-Trichlorobenzene	0.955	0.840	12.0	93	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.764	0.630	17.5	94	0.00
81	T	Methyl acetate	0.459	0.433	5.7	102	-0.01
82	T	Cyclohexane	0.802	0.707	11.8	91	0.00
83	T	Methylcyclohexane	0.803	0.729	9.2	92	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0823.M Mon Aug 26 16:04:03 2013 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7675.D
Acq On : 19 Sep 2013 12:07
Operator : XING
Sample : CCV100,CCV100,S,5g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 19 12:32:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	155	0.00
2	T	Dichlorodifluoromethane	1.076	0.877	18.5	133	0.00
3	P	Chloromethane	0.737	0.757	-2.7	159	0.01
4	C	Vinyl chloride	0.863	0.925	-7.2	163	0.00
5	T	Bromomethane	0.643	0.617	4.0	139	0.00
6	T	Chloroethane	0.543	0.567	-4.4	160	0.00
7	T	Trichlorofluoromethane	1.659	1.727	-4.1	158	-0.01
8	T	Acrolein	0.064	0.053	17.2	114	0.01
9	MC	1,1-Dichloroethene	0.888	0.902	-1.6	169	0.00
10	T	Acetone	0.385	0.336	12.7	133	0.00
11	T	Carbon disulfide	2.584	2.925	-13.2	168	0.00
12	T	Vinyl acetate	2.294	2.713	-18.3	158	0.00
13	T	Methylene chloride	1.071	0.945	11.8	142	0.00
14	T	Acrylonitrile	0.192	0.229	-19.3	169	0.00
15	T	tert-Butyl alcohol (TBA)	0.120	0.108	10.0	137	0.00
16	T	trans-1,2-Dichloroethene	0.601	0.597	0.7	159	0.00
17	T	Methyl tert-butyl ether (MT	2.498	2.250	9.9	138	0.00
18	P	1,1-Dichloroethane	1.200	1.254	-4.5	156	0.00
19	T	Diisopropyl ether (DIPE)	2.340	2.772	-18.5	169	0.00
20	T	cis-1,2-Dichloroethene	0.568	0.594	-4.6	160	0.00
21	T	2,2-Dichloropropane	1.106	1.115	-0.8	147	0.00
22	T	2-Butanone (MEK)	0.400	0.363	9.3	136	0.00
23	T	Bromochloromethane	0.235	0.222	5.5	154	0.00
25	C	Chloroform	1.527	1.542	-1.0	154	0.00
26	T	1,1,1-Trichloroethane	1.577	1.660	-5.3	152	0.00
27	T	Carbon tetrachloride	1.386	1.586	-14.4	160	0.00
28	T	1,1-Dichloropropene	1.027	1.189	-15.8	174	0.00
29	T	1,2-Dichloroethane (EDC)	1.710	1.666	2.6	153	0.00
30	S	1,2-Dichloroethane-d4	1.286	1.174	8.7	147	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	164	0.00
32	M	Benzene	1.869	2.103	-12.5	172	0.00
33	M	Trichloroethene	0.631	0.592	6.2	154	0.00
34	C	1,2-Dichloropropane	0.448	0.503	-12.3	178	0.00
35	T	Dibromomethane	0.387	0.354	8.5	149	0.00
36	T	1,4-Dioxane	0.004	0.004	0.0	141	0.00
37	T	Bromodichloromethane	0.980	1.029	-5.0	157	0.00
38	T	2-Chloroethyl vinyl ether	0.219	0.226	-3.2	156	0.00
39	T	cis-1,3-Dichloropropene	0.834	0.971	-16.4	168	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.551	0.583	-5.8	154	0.00
41	S	Toluene-d8	1.580	1.595	-0.9	164	0.00
42	MC	Toluene	1.235	1.418	-14.8	176	0.00
43	T	trans-1,3-Dichloropropene	0.944	1.091	-15.6	161	0.00
44	T	1,1,2-Trichloroethane	0.312	0.344	-10.3	169	0.00
45	T	Tetrachloroethene	0.603	0.619	-2.7	170	0.00
46	T	1,3-Dichloropropane	0.757	0.860	-13.6	169	0.00

47	T	2-Hexanone	0.563	0.512	9.1	136	0.00
48	T	Dibromochloromethane	0.525	0.581	-10.7	157	0.00
49	T	1,2-Dibromoethane (EDB)	0.408	0.427	-4.7	159	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	175	0.00
51	MP	Chlorobenzene	1.444	1.408	2.5	172	0.00
52	T	1,1,1,2-Tetrachloroethane	0.567	0.557	1.8	159	-0.01
53	C	Ethylbenzene	3.033	3.281	-8.2	173	0.00
54	T	m,p-Xylene	1.113	1.137	-2.2	175	0.00
55	T	o-Xylene	0.995	1.035	-4.0	170	0.00
56	T	Styrene	1.716	1.829	-6.6	169	0.00
57	P	Bromoform	0.371	0.384	-3.5	156	0.00
58	T	Isopropylbenzene	3.064	3.330	-8.7	173	0.00
59	S	Bromofluorobenzene	0.930	0.898	3.4	168	0.00
60	P	1,1,2,2-Tetrachloroethane	0.561	0.611	-8.9	171	0.00
61	T	Bromobenzene	0.654	0.654	0.0	166	0.00
62	T	1,2,3-Trichloropropane	0.802	0.755	5.9	162	0.00
63	T	n-Propylbenzene	3.704	4.151	-12.1	180	0.00
64	T	2-Chlorotoluene	2.452	2.597	-5.9	171	0.00
65	T	1,3,5-Trimethylbenzene	3.004	3.197	-6.4	168	0.00
66	T	4-Chlorotoluene	2.549	2.597	-1.9	171	-0.13
67	T	tert-Butylbenzene	2.107	2.266	-7.5	175	0.00
68	T	1,2,4-Trimethylbenzene	3.027	3.225	-6.5	169	-0.01
69	T	sec-Butylbenzene	3.388	3.821	-12.8	184	0.00
70	T	1,3-Dichlorobenzene	1.332	1.346	-1.1	173	0.00
71	T	4-Isopropyltoluene	2.775	3.034	-9.3	176	0.00
72	T	1,4-Dichlorobenzene	1.357	1.384	-2.0	172	0.00
73	T	n-Butylbenzene	1.596	1.828	-14.5	182	0.00
74	T	1,2-Dichlorobenzene	1.316	1.311	0.4	167	0.00
75	T	1,2-Dibromo-3-chloropropane	0.203	0.187	7.9	143	0.00
76	T	1,2,4-Trichlorobenzene	1.008	0.935	7.2	153	0.00
77	T	Hexachlorobutadiene	0.828	0.765	7.6	166	0.00
78	T	Naphthalene	1.800	1.778	1.2	157	0.00
79	T	1,2,3-Trichlorobenzene	0.955	0.826	13.5	156	-0.01
80	T	1,1,2-Trichloro-1,2,2-trifl	0.764	0.712	6.8	181	0.00
81	T	Methyl acetate	0.459	0.379	17.4	153	0.00
82	T	Cyclohexane	0.802	0.900	-12.2	199	0.00
83	T	Methylcyclohexane	0.803	0.931	-15.9	200	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0823.M Thu Sep 19 12:32:49 2013 RP1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L9286.D Date Analyzed: 09/12/2013

Instrument ID: MSD_L Time Analyzed: 15:59

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	304439		5.89		412580		6.71		421882		10.05	
	UPPER LIMIT	608878		6.39		825160		7.21		843764		10.55	
	LOWER LIMIT	152219.5		5.39		206290		6.21		210941		9.55	
	LAB SAMPLE ID												
01	ICC5	321686		5.89		438603		6.71		446388		10.05	
02	ICC2	299493		5.89		410860		6.71		409247		10.05	
03	ICC1	296852		5.89		409721		6.71		419553		10.05	
04	ICC20	301367		5.89		408848		6.71		418826		10.05	
05	ICC150	304688		5.89		411584		6.71		416606		10.05	
06	ICC200	305786		5.89		420148		6.71		423583		10.05	
07	ICV100	282771		5.89		388132		6.71		393241		10.05	
08													
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21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L9348.D Date Analyzed: 09/18/2013

Instrument ID: MSD_L Time Analyzed: 10:00

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	375158		5.88		449373		6.70		486469		10.05	
	UPPER LIMIT	750316		6.38		898746		7.20		972938		10.55	
	LOWER LIMIT	187579		5.38		224686.5		6.20		243234.5		9.55	
	LAB SAMPLE ID												
01	BLKS130918	316284		5.89		447712		6.71		477716		10.05	
02	08967-003	311370		5.89		446456		6.71		473231		10.05	
03	08967-004	315321		5.89		448009		6.71		476252		10.05	
04	09031-002	321533		5.89		457327		6.70		483843		10.05	
05	08895-001	341479		5.89		479872		6.70		505459		10.05	
06	09104-001	349395		5.89		497329		6.70		519035		10.05	
07	09089-001	349137		5.89		496761		6.71		530758		10.05	
08	09094-001	365914		5.89		515054		6.71		541096		10.05	
09	LCSS130918	287352		5.89		399713		6.70		425612		10.05	
10	08895-001MS	293403		5.89		404920		6.71		429632		10.05	
11	08895-001MSD	283423		5.89		397033		6.71		422618		10.05	
12	09079-005	286392		5.89		402418		6.71		424922		10.05	
13	09079-006	287697		5.89		400993		6.71		419824		10.05	
14	09135-004	257837		5.89		358880		6.71		385566		10.05	
15	09135-003	293289		5.88		402876		6.70		425324		10.05	
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F7099.D Date Analyzed: 08/23/2013

Instrument ID: MSD_F Time Analyzed: 14:07

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	402954	6.07	442389	6.89	446555	10.24
	UPPER LIMIT	805908	6.57	884778	7.39	893110	10.74
	LOWER LIMIT	201477	5.57	221194.5	6.39	223277.5	9.74
	LAB SAMPLE ID						
01	ICV1	312997	6.07	394142	6.89	371906	10.24
02	ICC2	360750	6.08	411510	6.89	380521	10.24
03	ICC5	356234	6.08	403392	6.89	384073	10.24
04	ICC20	365297	6.08	399806	6.89	389972	10.24
05	ICC150	461854	6.07	497496	6.89	486076	10.24
06	ICC200	508076	6.07	553314	6.89	528425	10.24
07	ICV100	414123	6.08	454205	6.89	457575	10.24
08							
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IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F7675.D

Date Analyzed: 09/19/2013

Instrument ID: MSD_F

Time Analyzed: 12:07

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	625704	6.07	725986	6.89	783172	10.24
	UPPER LIMIT	1251408	6.57	1451972	7.39	1566344	10.74
	LOWER LIMIT	312852	5.57	362993	6.39	391586	9.74
	LAB SAMPLE ID						
01	BLKS130919-01	529874	6.08	666551	6.89	623987	10.24
02	LCSS130919-01	623021	6.08	731641	6.89	754255	10.24
03	LCSDS130919-01	701222	6.07	830878	6.89	869099	10.24
04	09216-006	671663	6.08	840808	6.89	739133	10.24
05	09216-008	574476	6.08	740133	6.89	718712	10.24
06	09079-010	529614	6.08	679780	6.89	673603	10.24
07	09135-005	551347	6.08	715409	6.89	661566	10.24
08	09152-003	551318	6.08	733502	6.89	749287	10.24
09	09229-001	569807	6.08	755844	6.89	722923	10.24
10	09229-002	529897	6.08	671229	6.89	621071	10.24
11	09229-003	503491	6.08	658266	6.89	612296	10.24
12	09229-004	450769	6.08	628170	6.89	580290	10.24
13	09229-005	514890	6.08	658937	6.89	632654	10.24
14	09229-006	507485	6.08	657736	6.89	611103	10.24
15	09229-007	480008	6.08	628167	6.89	620049	10.24
16	09229-008	493364	6.08	645696	6.89	610933	10.24
17	09229-009	470372	6.08	619853	6.89	614419	10.24
18	09229-011	466927	6.08	606649	6.89	605864	10.24
19	09229-012	448051	6.08	582516	6.89	579403	10.24
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 14:23:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 17 10:42:49 2013
Response via : Initial Calibration

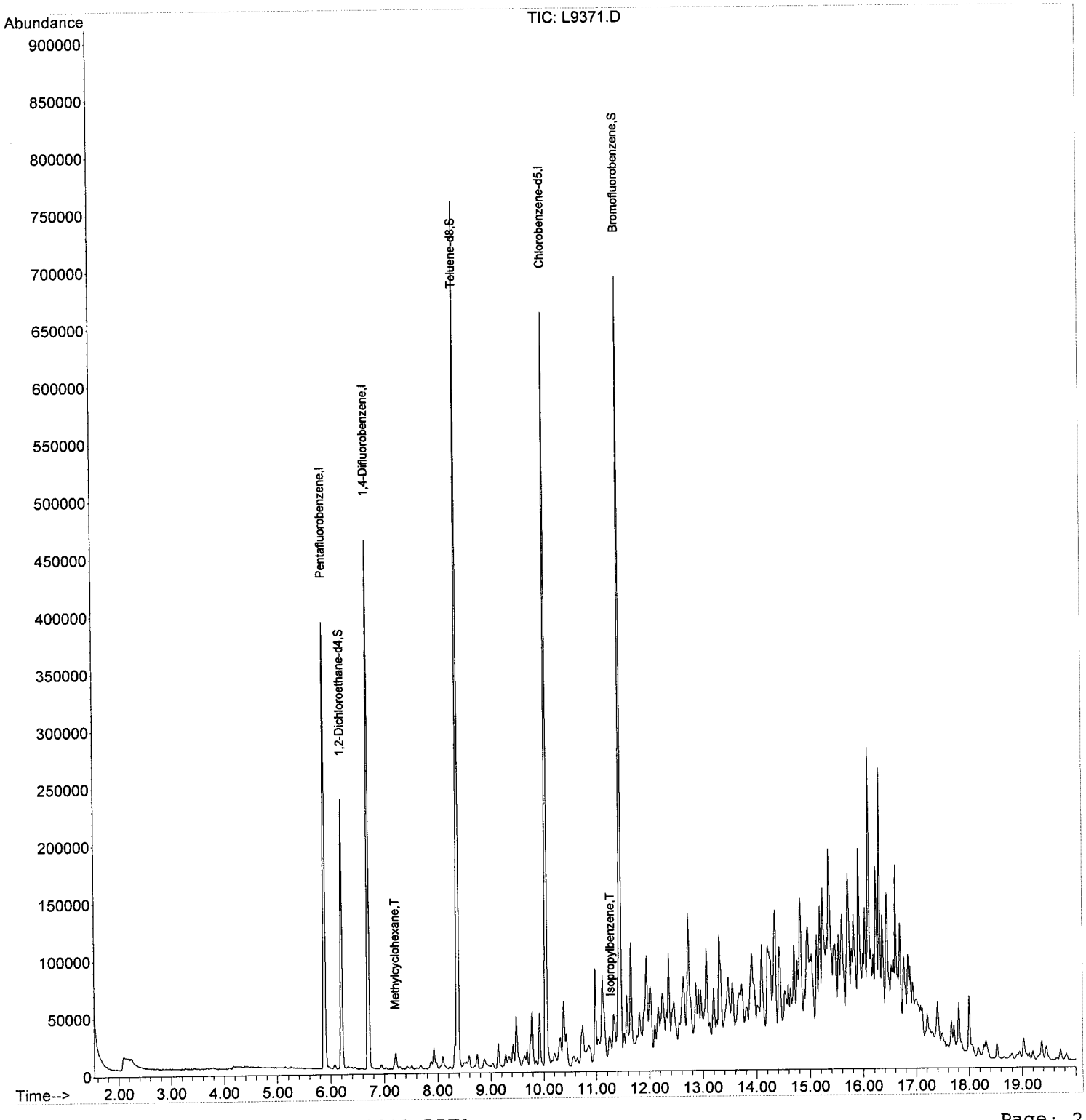
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	5.88	168	293289	50.00	UG		0.00
31) 1,4-Difluorobenzene	6.70	114	402876	50.00	UG		-0.01
50) Chlorobenzene-d5	10.05	117	425324	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.20	65	167484	51.97	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 103.94%				
41) Toluene-d8	8.38	98	512389	50.91	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.82%				
59) Bromofluorobenzene	11.45	95	225939	48.46	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 96.92%				
Target Compounds							Qvalue
58) Isopropylbenzene	11.27	105	3425	0.36	UG		100
83) Methylcyclohexane	7.21	55	6519	4.19	UG	#	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 14:23:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 17 10:42:49 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM091213.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.103	51	57	59	rBV	11400	36971	2.51%	0.206%
2	5.879	424	429	441	rBV	389296	831475	56.42%	4.631%
3	6.204	455	461	468	rBV	234325	475397	32.26%	2.648%
4	6.702	503	510	523	rBV	460841	916590	62.20%	5.105%
5	7.209	554	560	565	rBV3	13669	38391	2.61%	0.214%
6	7.930	628	631	640	rVV2	18051	48841	3.31%	0.272%
7	8.093	640	647	657	rVB3	10682	32179	2.18%	0.179%
8	8.377	664	675	682	rBV	755988	1473626	100.00%	8.207%
9	8.742	702	711	716	rVB3	12486	32645	2.22%	0.182%
10	8.874	716	724	733	rBV5	8476	33694	2.29%	0.188%
11	9.138	746	750	757	rBV	21673	50512	3.43%	0.281%
12	9.280	757	764	767	rBV	11222	26570	1.80%	0.148%
13	9.341	767	770	774	rVV5	8083	24576	1.67%	0.137%
14	9.422	774	778	781	rVV	18423	38612	2.62%	0.215%
15	9.483	781	784	793	rVB	43160	107646	7.30%	0.600%
16	9.636	793	799	801	rBV4	8788	25582	1.74%	0.142%
17	9.686	801	804	807	rVV	12996	23161	1.57%	0.129%
18	9.788	807	814	818	rVB2	46499	128416	8.71%	0.715%
19	9.920	823	827	835	rVB	45394	99136	6.73%	0.552%
20	10.052	835	840	848	rBV	656769	1277574	86.70%	7.115%
21	10.204	848	855	860	rBV6	8602	31484	2.14%	0.175%
22	10.316	860	866	869	rBV3	19836	63127	4.28%	0.352%
23	10.387	869	873	876	rBV2	44180	99647	6.76%	0.555%
24	10.570	886	891	895	rBV5	8516	31564	2.14%	0.176%
25	10.742	901	908	914	rBV5	33023	133469	9.06%	0.743%
26	10.854	915	919	926	rVB5	14287	61591	4.18%	0.343%
27	10.976	926	931	935	rBV	80953	173757	11.79%	0.968%
28	11.026	935	936	940	rVV3	13777	34988	2.37%	0.195%
29	11.118	940	945	953	rVB3	70534	242006	16.42%	1.348%
30	11.250	953	958	962	rBV5	17482	57316	3.89%	0.319%
31	11.331	962	966	970	rVV4	30111	82647	5.61%	0.460%
32	11.453	970	978	983	rVB	671380	1304021	88.49%	7.262%
33	11.575	987	990	993	rBV2	42044	74111	5.03%	0.413%
34	11.656	993	998	1004	rVB4	88158	190631	12.94%	1.062%
35	11.818	1007	1014	1019	rBV3	26315	80826	5.48%	0.450%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM091213.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	11.950	1019	1027	1030	rVV3	69835	207769	14.10%	1.157%
37	12.021	1030	1034	1039	rVB3	52921	165389	11.22%	0.921%
38	12.103	1039	1042	1045	rBV3	19117	41478	2.81%	0.231%
39	12.174	1045	1049	1051	rBV3	28129	68780	4.67%	0.383%
40	12.245	1052	1056	1061	rVB5	31918	93360	6.34%	0.520%
41	12.366	1061	1068	1071	rVB2	68331	150720	10.23%	0.839%
42	12.458	1072	1077	1084	rVB7	32981	133417	9.05%	0.743%
43	12.641	1084	1095	1099	rBV5	55001	236708	16.06%	1.318%
44	12.732	1099	1104	1112	rVB2	104535	295899	20.08%	1.648%
45	12.874	1113	1118	1120	rBV	44303	96629	6.56%	0.538%
46	12.925	1121	1123	1125	rVB2	25285	31827	2.16%	0.177%
47	12.965	1125	1127	1131	rVB2	25587	35295	2.40%	0.197%
48	13.067	1132	1137	1146	rVB4	74827	217089	14.73%	1.209%
49	13.199	1146	1150	1154	rBV2	39810	89532	6.08%	0.499%
50	13.311	1157	1161	1167	rVB2	80547	232450	15.77%	1.295%
51	13.473	1170	1177	1181	rBV4	36112	114055	7.74%	0.635%
52	13.554	1181	1185	1189	rVB3	37771	97835	6.64%	0.545%
53	13.676	1191	1197	1199	rBV5	24755	83189	5.65%	0.463%
54	13.818	1207	1211	1214	rBV3	13161	35578	2.41%	0.198%
55	13.910	1214	1220	1228	rVV4	58236	257198	17.45%	1.432%
56	14.102	1235	1239	1245	rVB3	71384	177365	12.04%	0.988%
57	14.214	1245	1250	1258	rBV5	69802	357355	24.25%	1.990%
58	14.346	1258	1263	1267	rVB4	98985	281788	19.12%	1.569%
59	14.427	1267	1271	1277	rBV4	66999	191973	13.03%	1.069%
60	14.529	1278	1281	1285	rBV3	25110	73499	4.99%	0.409%
61	14.600	1286	1288	1290	rVB2	19512	25001	1.70%	0.139%
62	14.640	1290	1292	1294	rBV	16755	24126	1.64%	0.134%
63	14.701	1295	1298	1301	rVB2	50482	88170	5.98%	0.491%
64	14.762	1302	1304	1306	rBV2	38039	64914	4.41%	0.362%
65	14.823	1306	1310	1315	rVB3	98048	249339	16.92%	1.389%
66	14.955	1315	1323	1327	rBV3	73099	299390	20.32%	1.667%
67	15.128	1336	1340	1343	rBV2	73394	156854	10.64%	0.874%
68	15.189	1343	1346	1348	rVV	88228	162013	10.99%	0.902%
69	15.239	1348	1351	1356	rVV2	95901	276780	18.78%	1.541%
70	15.351	1360	1362	1369	rVB2	112366	301160	20.44%	1.677%
71	15.534	1377	1380	1383	rBV4	54920	100831	6.84%	0.562%
72	15.605	1383	1387	1392	rVB6	80118	230328	15.63%	1.283%
73	15.717	1392	1398	1402	rBV4	115487	361267	24.52%	2.012%
74	15.778	1402	1404	1406	rVV2	39814	80798	5.48%	0.450%
75	15.818	1406	1408	1414	rVV2	69003	163431	11.09%	0.910%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM091213.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	15.909	1414	1417	1423	rVV4	125077	279434	18.96%	1.556%
77	16.031	1427	1429	1431	rVV	72243	109535	7.43%	0.610%
78	16.092	1431	1435	1442	rVV2	211398	453244	30.76%	2.524%
79	16.234	1446	1449	1453	rVV2	105253	219828	14.92%	1.224%
80	16.305	1453	1456	1459	rVV	190401	297478	20.19%	1.657%
81	16.356	1459	1461	1466	rVB3	76436	163006	11.06%	0.908%
82	16.448	1466	1470	1476	rBV5	95501	273924	18.59%	1.526%
83	16.569	1476	1482	1483	rBV5	28037	87572	5.94%	0.488%
84	16.610	1484	1486	1491	rVV3	102528	152887	10.37%	0.851%
85	16.691	1491	1494	1498	rVB3	78968	157107	10.66%	0.875%
86	16.762	1498	1501	1506	rBV6	50412	128811	8.74%	0.717%
87	16.843	1506	1509	1512	rBV3	43444	94412	6.41%	0.526%
88	17.209	1541	1545	1552	rVB5	17150	42824	2.91%	0.238%
89	17.402	1559	1564	1569	rVV2	33719	91931	6.24%	0.512%
90	17.493	1570	1573	1580	rVB6	12052	37968	2.58%	0.211%
91	17.666	1585	1590	1592	rBV3	23282	49361	3.35%	0.275%
92	17.717	1593	1595	1598	rVV2	18763	31448	2.13%	0.175%
93	17.808	1599	1604	1615	rVB2	41991	114141	7.75%	0.636%
94	18.001	1618	1623	1635	rVB	52673	144888	9.83%	0.807%
95	18.315	1646	1654	1665	rVB2	15555	78023	5.29%	0.435%
96	18.519	1670	1674	1683	rVB	13486	32944	2.24%	0.183%
97	18.945	1707	1716	1720	rVV5	6690	28332	1.92%	0.158%
98	19.026	1720	1724	1731	rVV	18215	58063	3.94%	0.323%
99	19.371	1747	1758	1762	rVV3	16746	56578	3.84%	0.315%
100	19.452	1762	1766	1777	rVB3	12332	38676	2.62%	0.215%

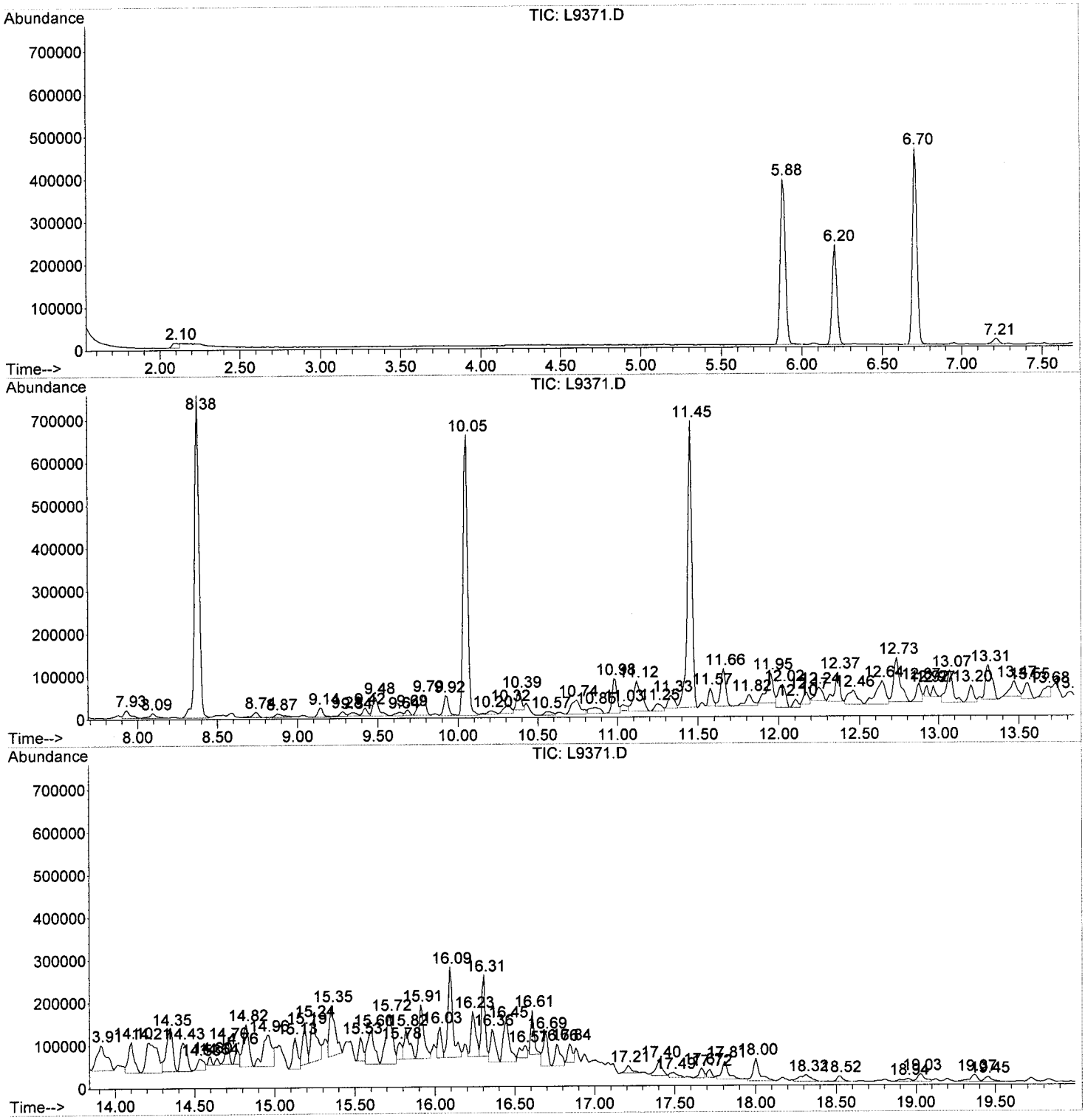
Sum of corrected areas: 17955773

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

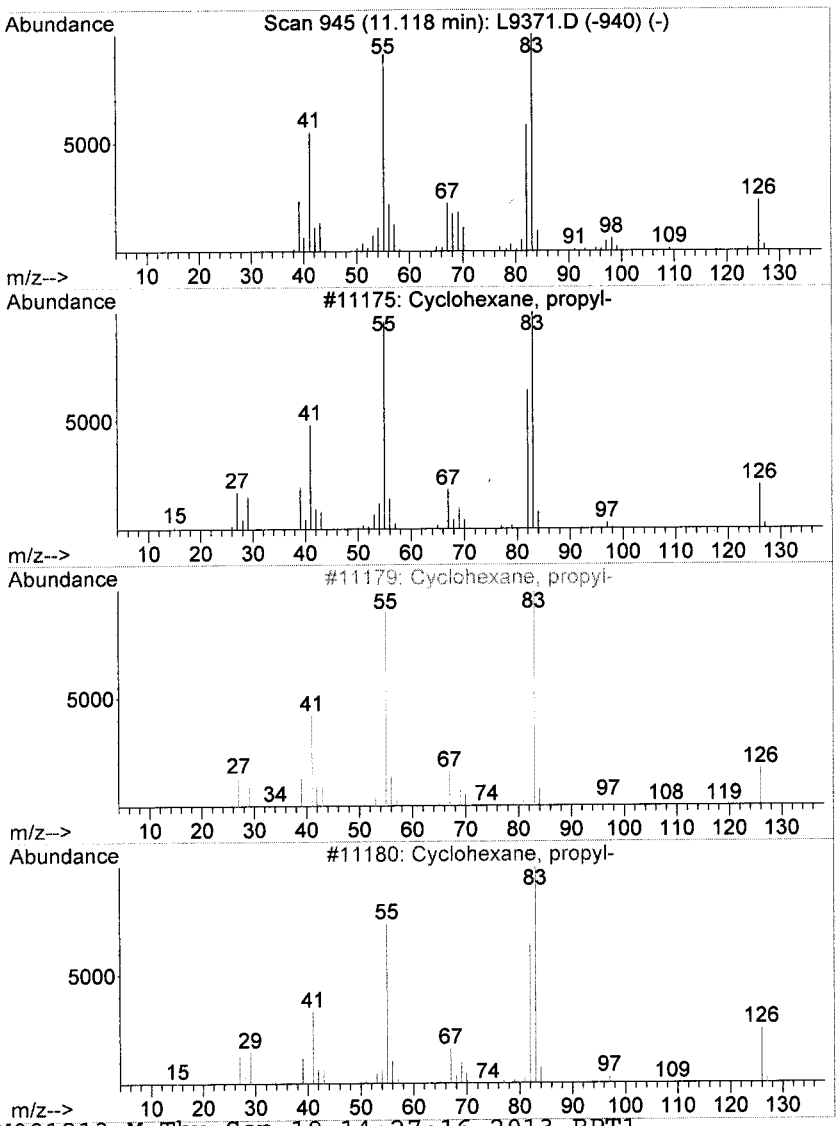
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

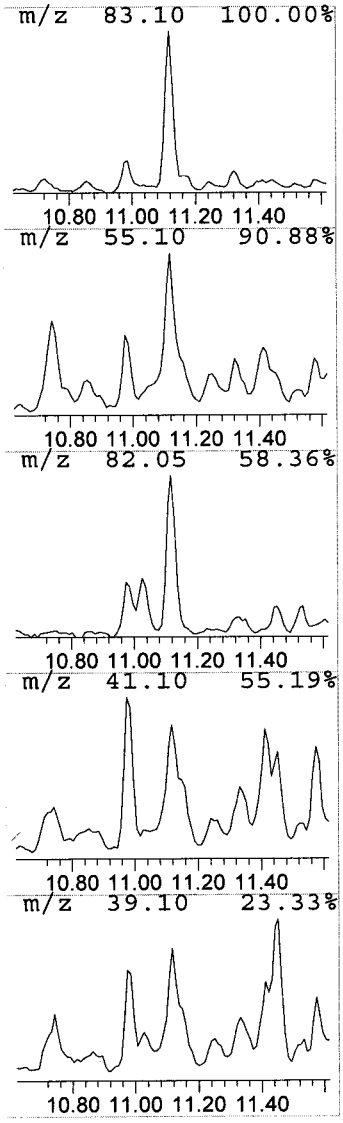
****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.12	9.47 UG	242006	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, propyl-	126	C9H18	001678-92-8	90
2	Cyclohexane, propyl-	126	C9H18	001678-92-8	90
3	Cyclohexane, propyl-	126	C9H18	001678-92-8	87
4	Cyclohexane, propyl-	126	C9H18	001678-92-8	80
5	Cyclohexane, octyl-	196	C14H28	001795-15-9	72





Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

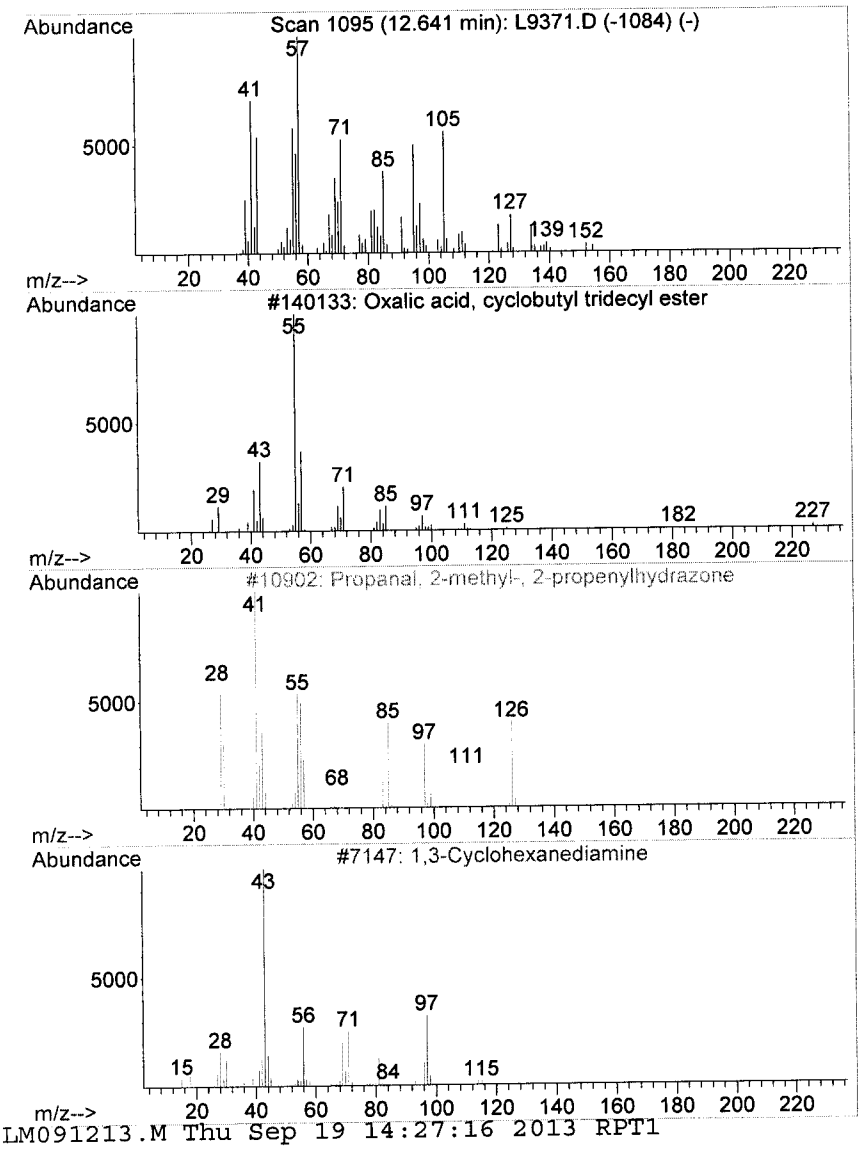
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

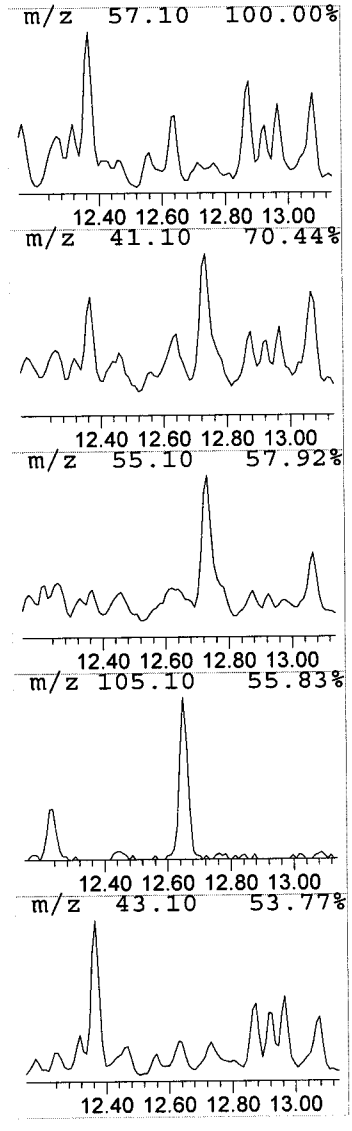
****

Peak Number 2 Unknown VOA Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.64	9.26 UG	236708	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Oxalic acid, cyclobutyl tridecyl...	326	C19H34O4	1000309-70-4	50
2	Propanal, 2-methyl-, 2-propenylh...	126	C7H14N2	066075-08-9	42
3	1,3-Cyclohexanediamine	114	C6H14N2	003385-21-5	38
4	Cyclohexanol, 5-methyl-2-(1-meth...	156	C10H20O	023283-97-8	38
5	Ether, heptyl hexyl	200	C13H28O	007289-40-9	14





Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

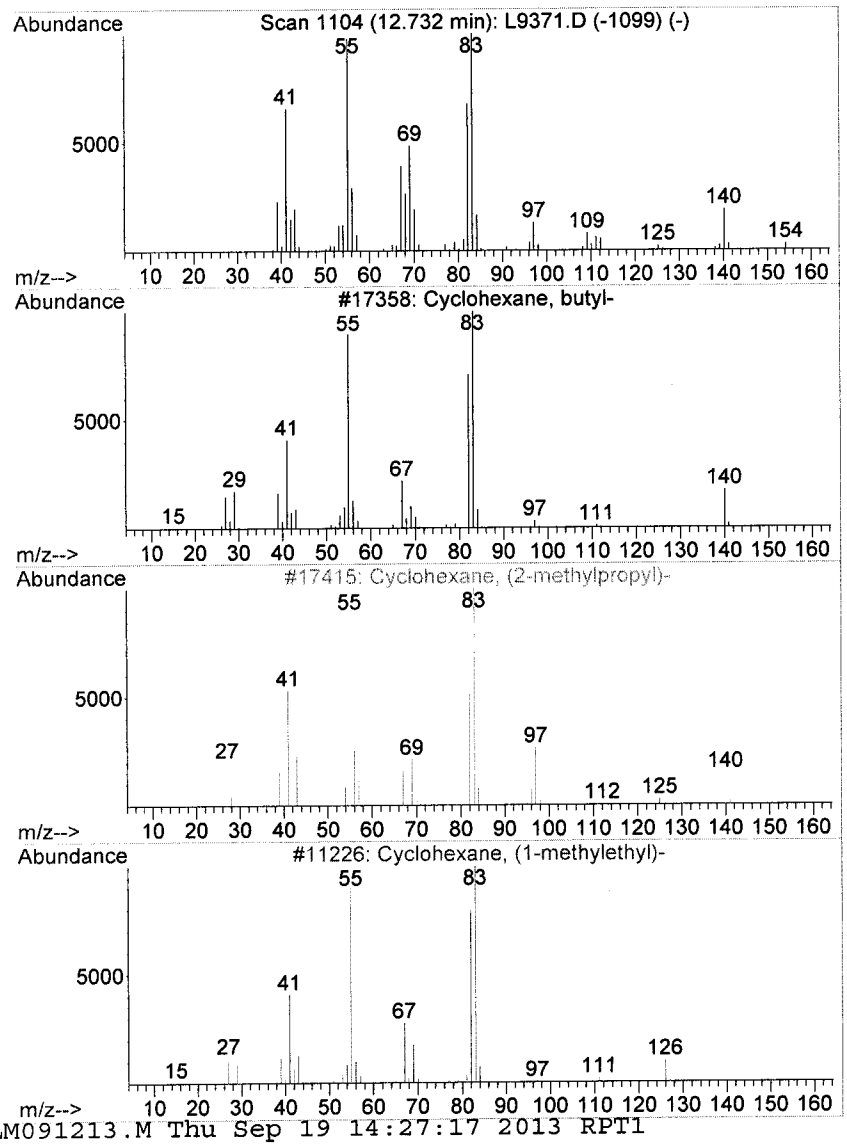
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

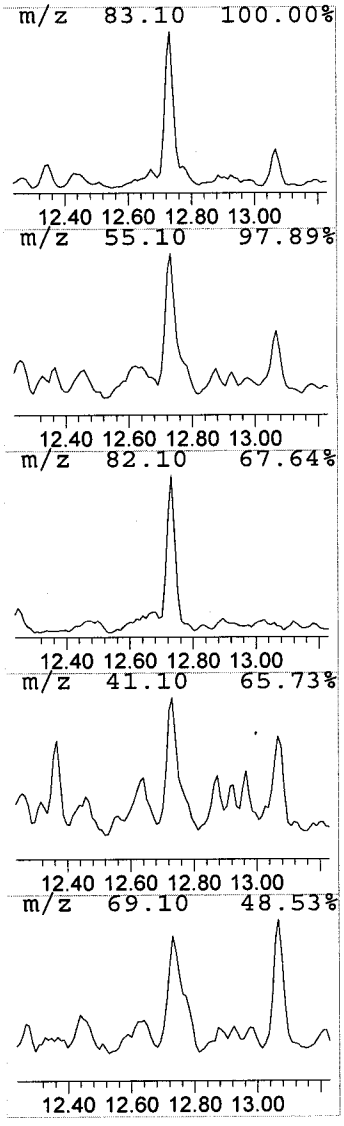
****

Peak Number 3 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.73	11.58 UG	295899	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, butyl-	140	C10H20	001678-93-9	64
2	Cyclohexane, (2-methylpropyl)-	140	C10H20	001678-98-4	62
3	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	58
4	Cyclohexane, (2-methylpropyl)-	140	C10H20	001678-98-4	58
5	Cyclohexane, pentyl-	154	C11H22	004292-92-6	50





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Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

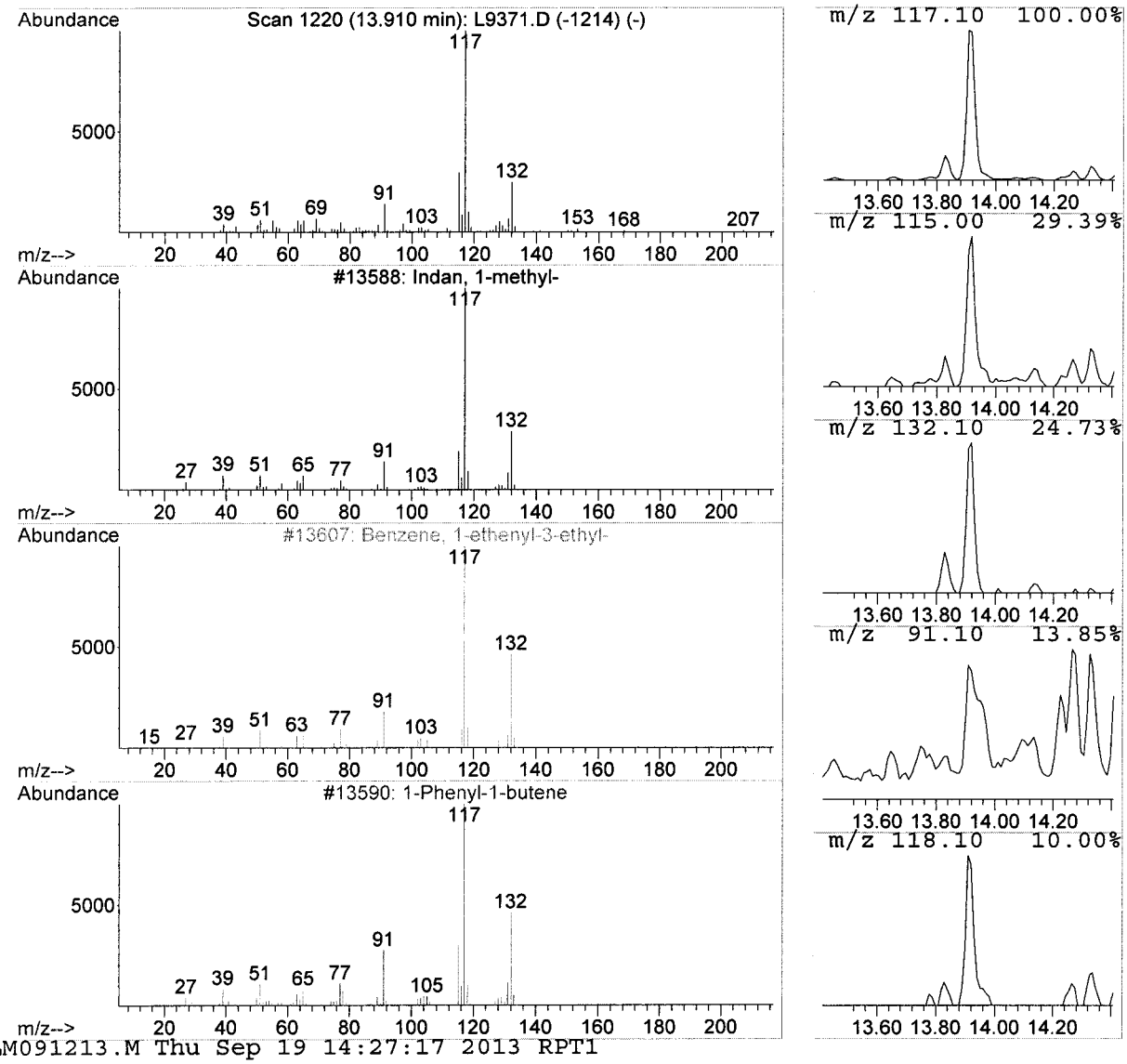
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 Unknown Aromatic Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.91	10.07 UG	257198	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	87
2	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	87
3	1-Phenyl-1-butene	132	C10H12	000824-90-8	87
4	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	86
5	1H-Indene, 2,3-dihydro-2-methyl-	132	C10H12	000824-63-5	83



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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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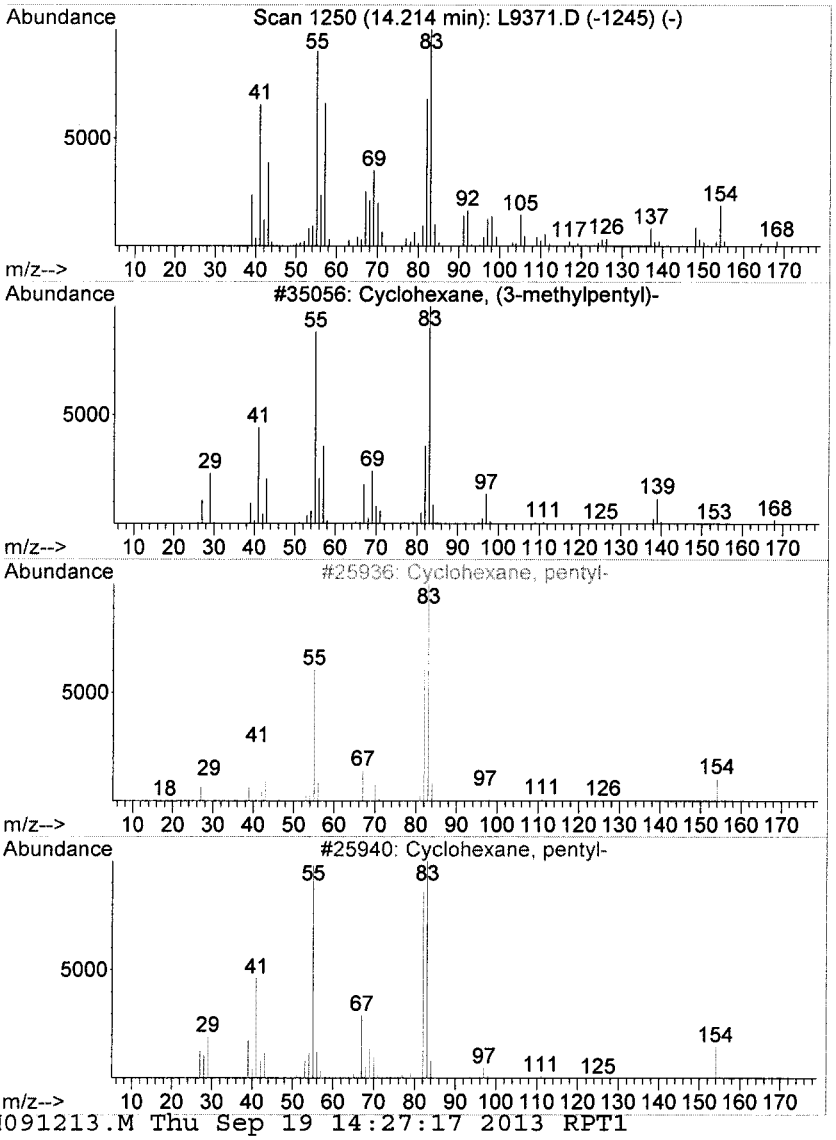
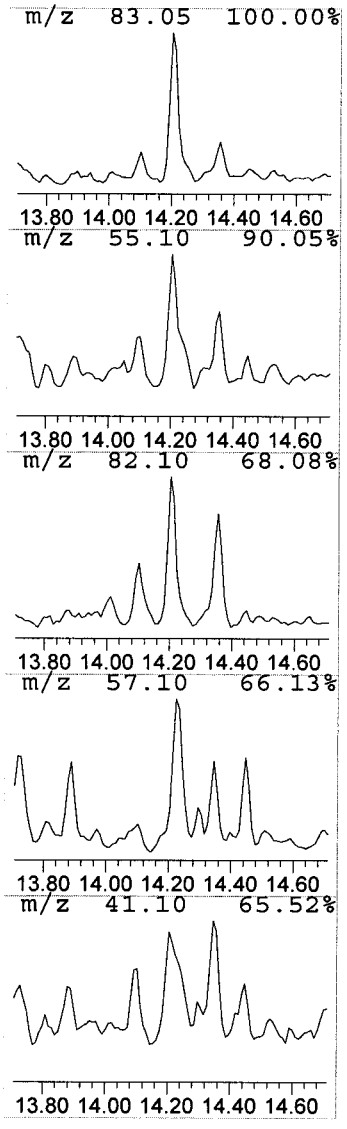
Peak Number 5 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.21	13.99 UG	357355	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, (3-methylpentyl)-	168	C12H24	061142-38-9	60
2	Cyclohexane, pentyl-	154	C11H22	004292-92-6	59
3	Cyclohexane, pentyl-	154	C11H22	004292-92-6	58
4	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	58
5	n-Amylcyclohexane	154	C11H22	029949-27-7	53





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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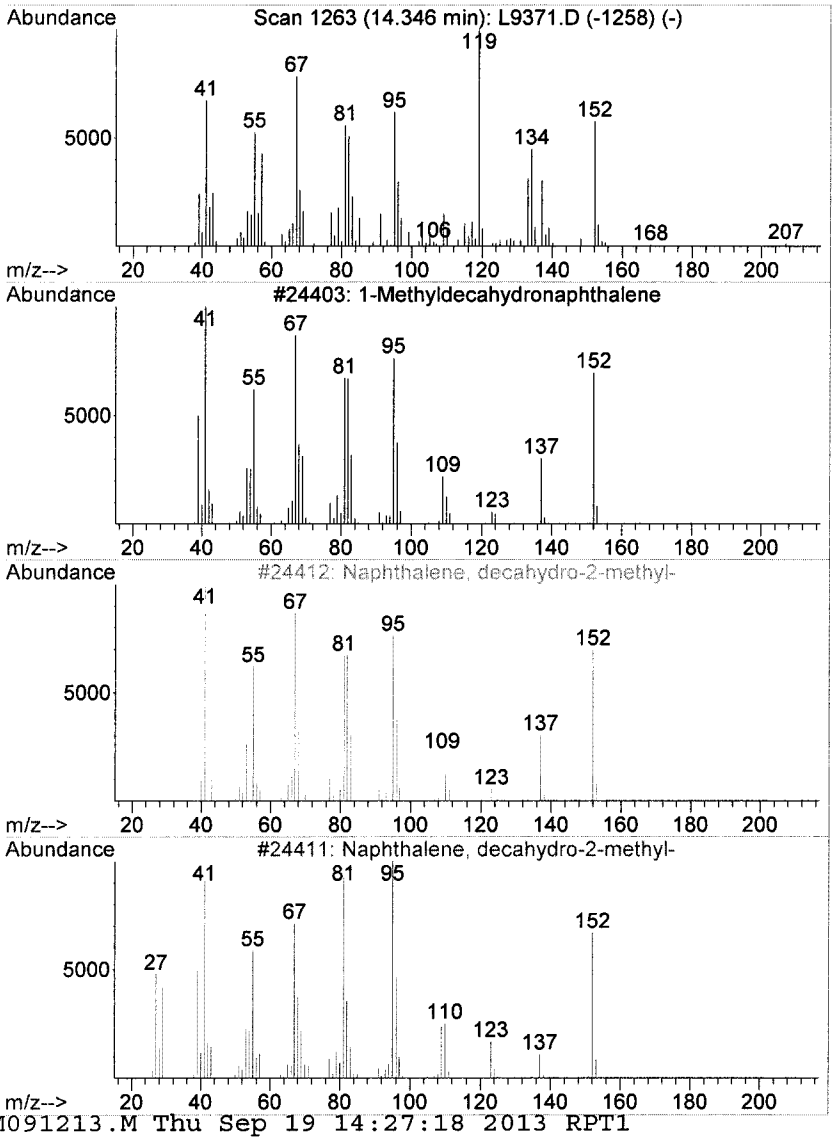
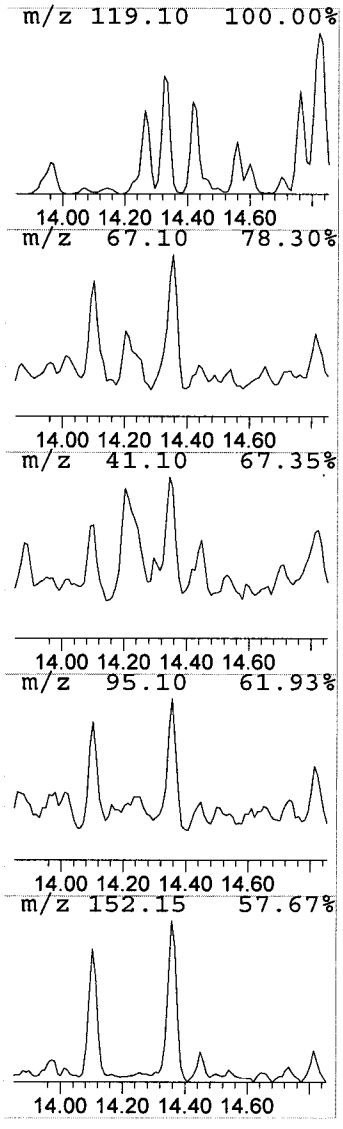
Peak Number 6 Unknown Aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.35	11.03 UG	281788	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Methyldecahydronaphthalene	152	C11H20	002958-75-0	90
2	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	90
3	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	55
4	2-Methyl-3-trans-propenylpyrazine	134	C8H10N2	232255-41-3	49
5	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	47





Library Search Compound Report

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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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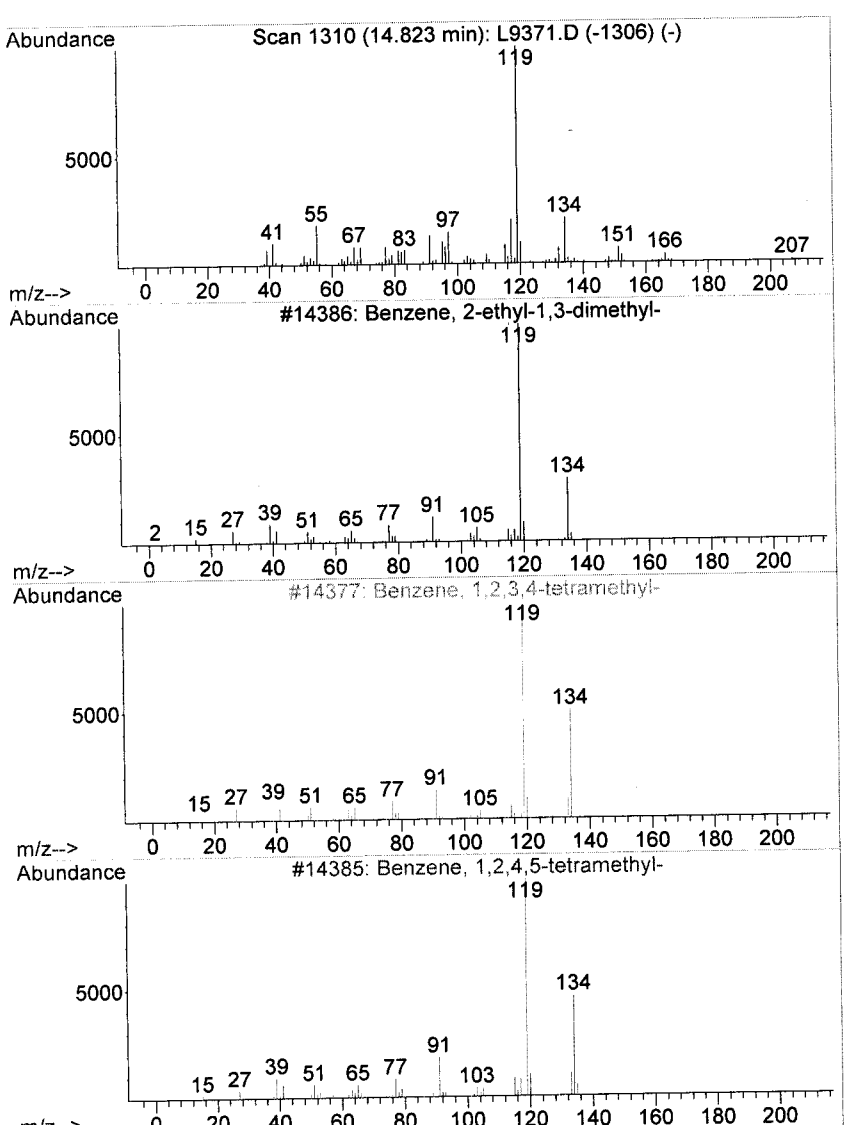
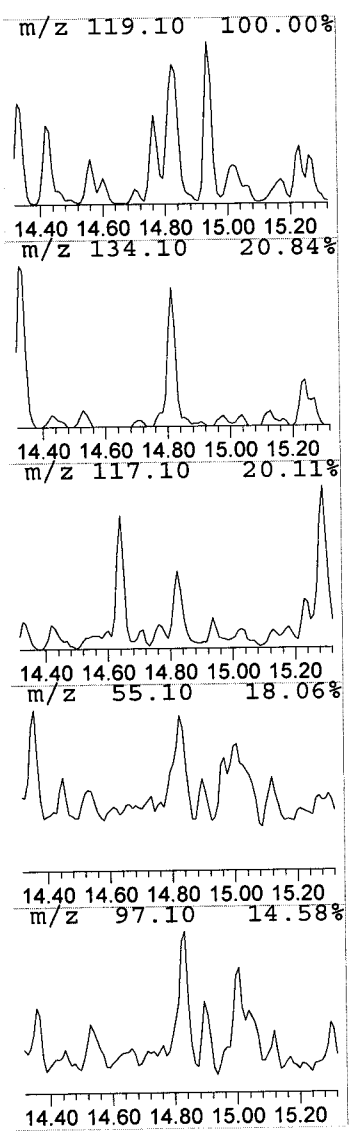
Peak Number 7 Unknown Aromatic Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.82	9.76 UG	249339	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	64
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	64
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	64
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	64
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	64





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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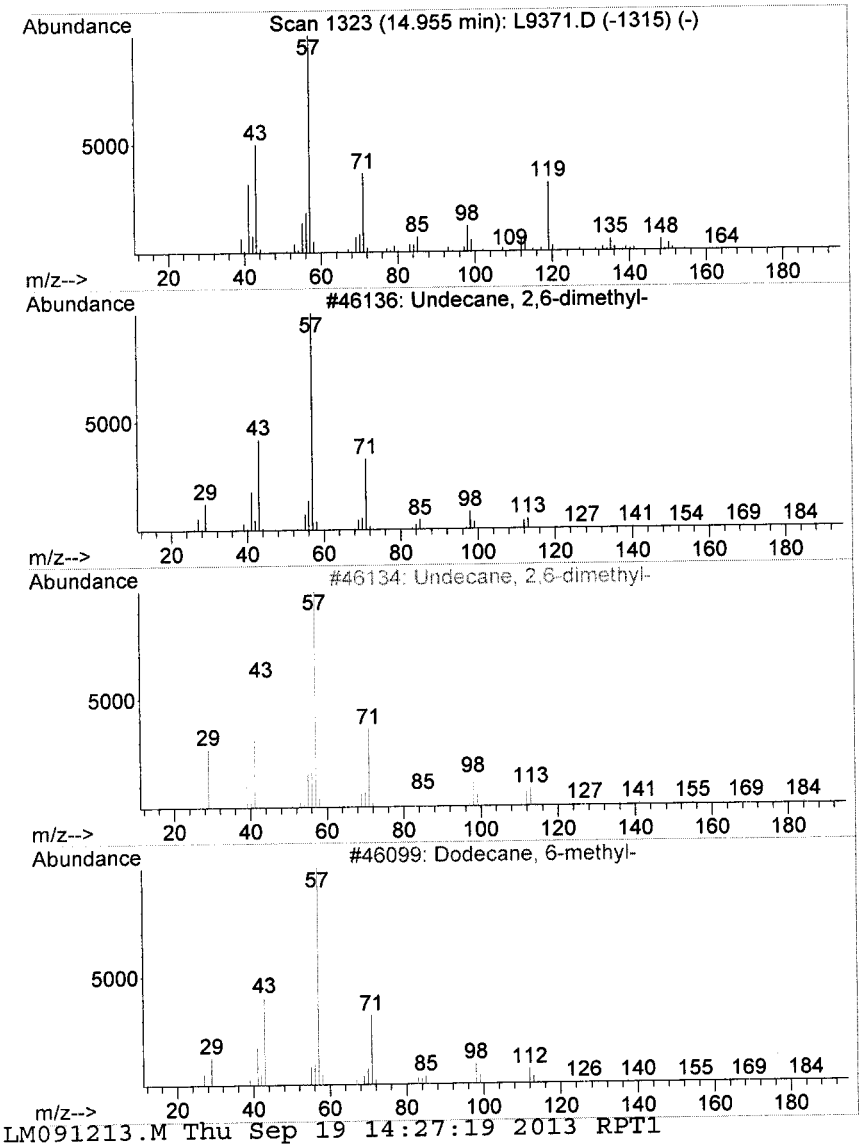
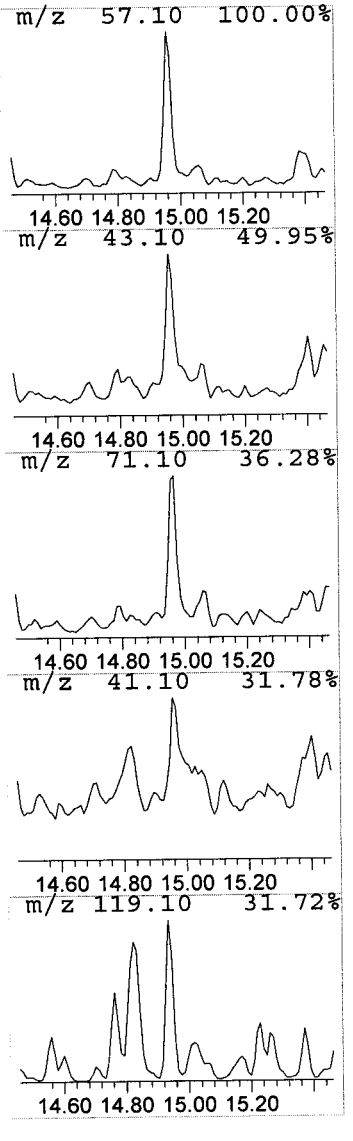
Peak Number 8 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.96	11.72 UG	299390	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	58
2	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	53
3	Dodecane, 6-methyl-	184	C13H28	006044-71-9	50
4	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	49
5	Undecane, 3,6-dimethyl-	184	C13H28	017301-28-9	43





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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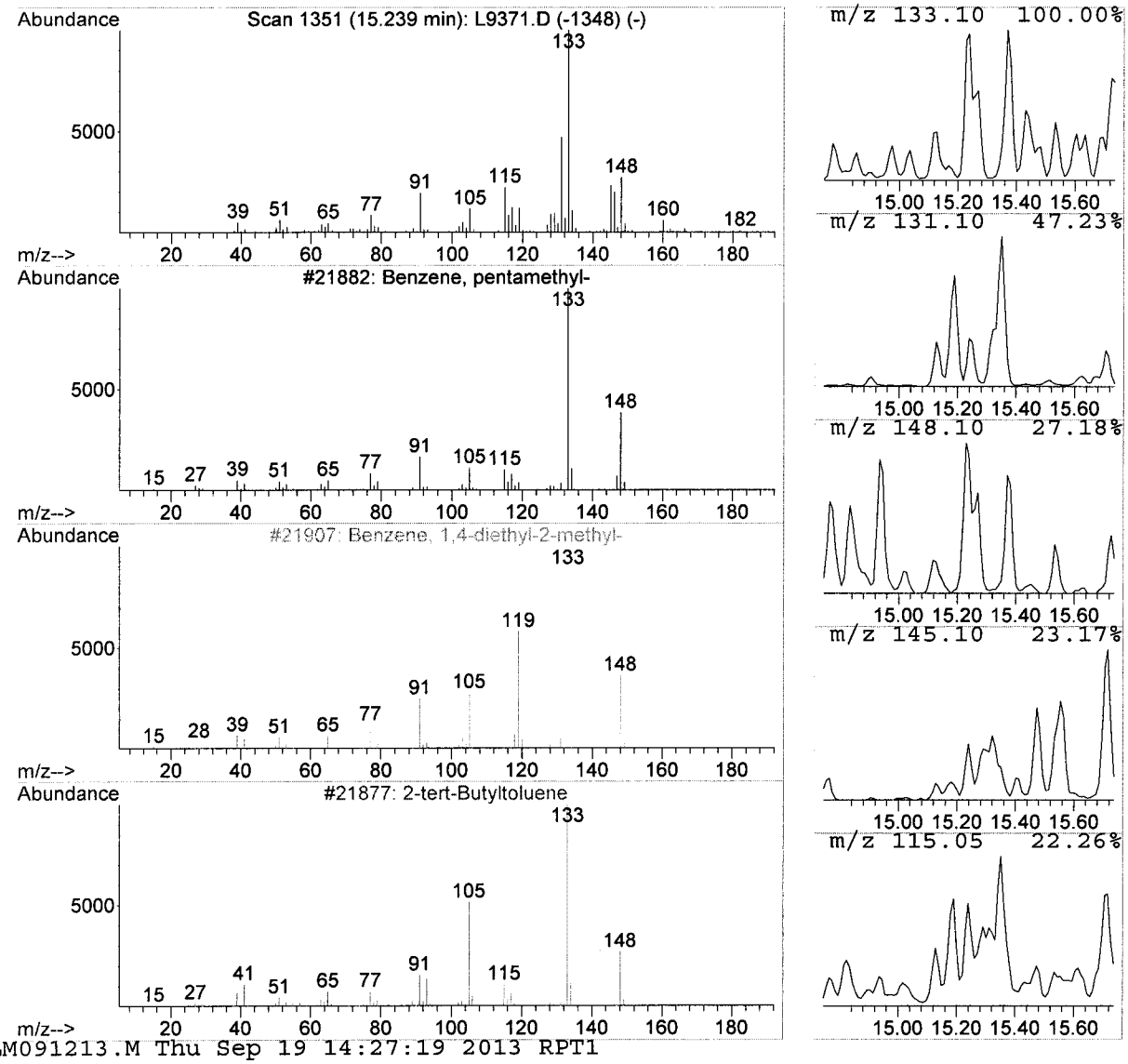
Peak Number 9 Unknown Aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.24	10.83 UG	276780	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	49
2	Benzene, 1,4-diethyl-2-methyl-	148	C11H16	013632-94-5	46
3	2-tert-Butyltoluene	148	C11H16	001074-92-6	46
4	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	46
5	4-tert-Butyltoluene	148	C11H16	000098-51-1	46



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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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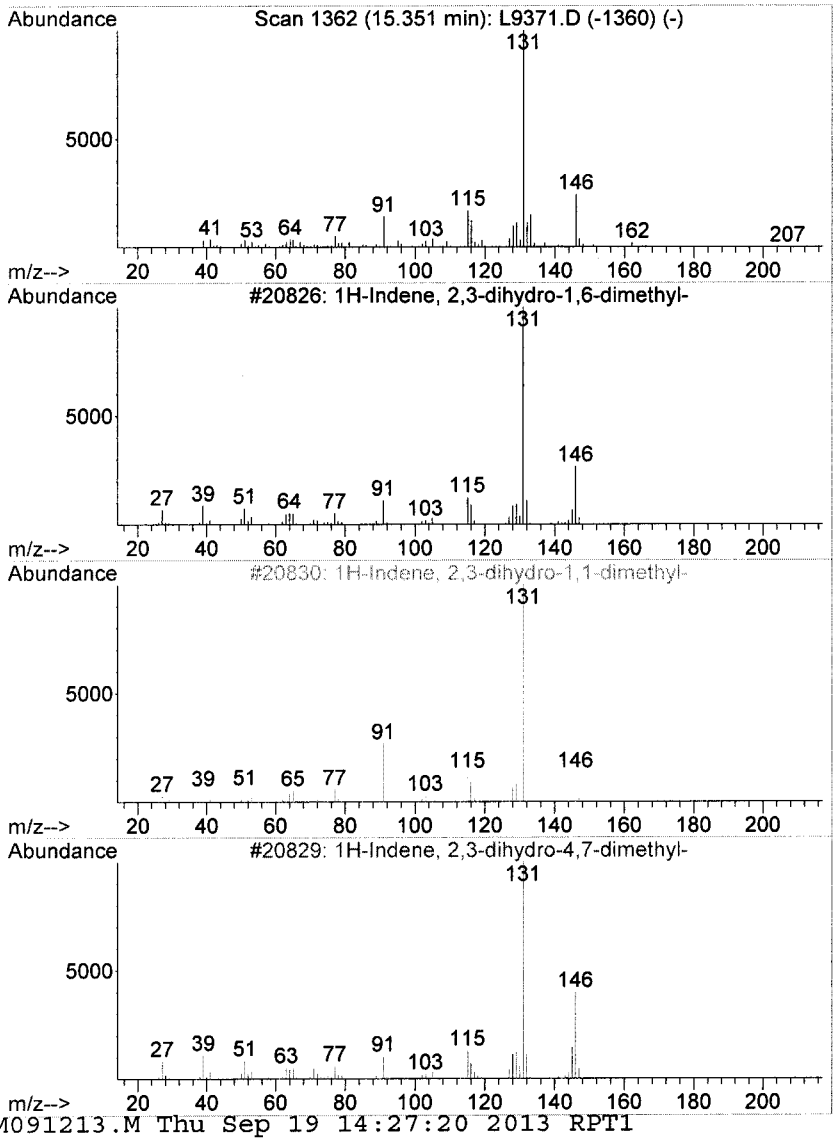
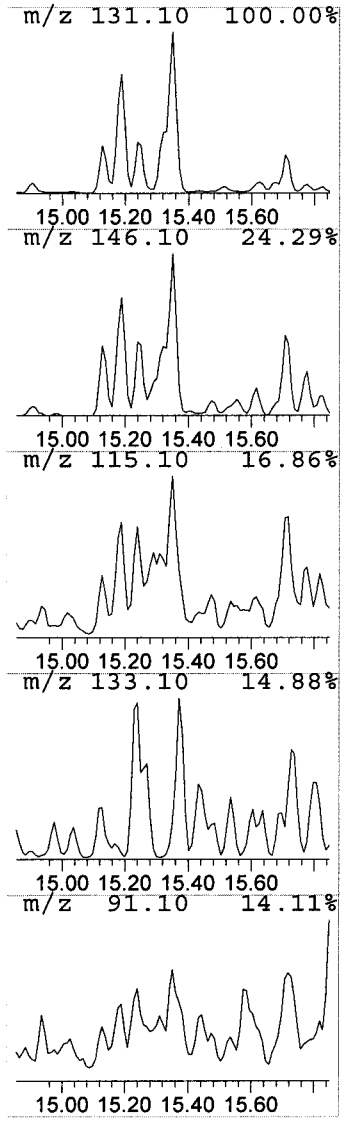
Peak Number 10 Unknown Aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.35	11.79 UG	301160	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	95
2	1H-Indene, 2,3-dihydro-1,1-dimet...	146	C11H14	004912-92-9	91
3	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	91
4	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	91
5	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	91





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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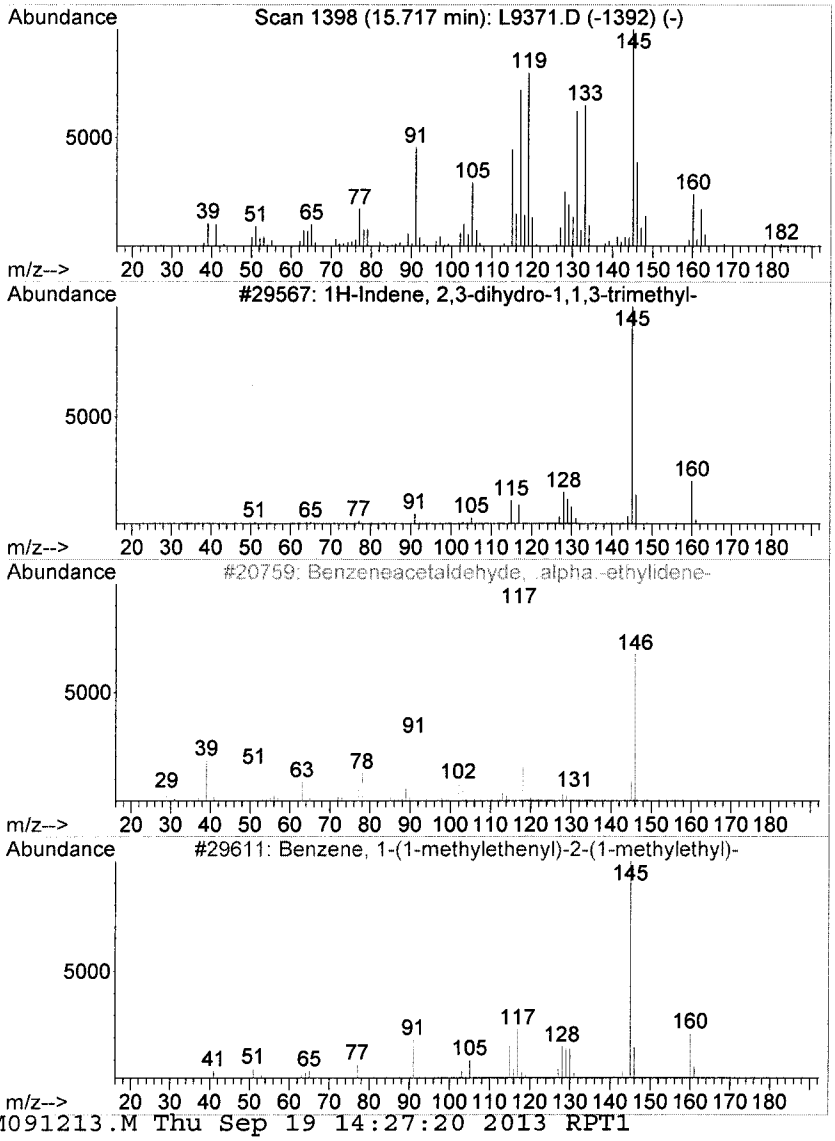
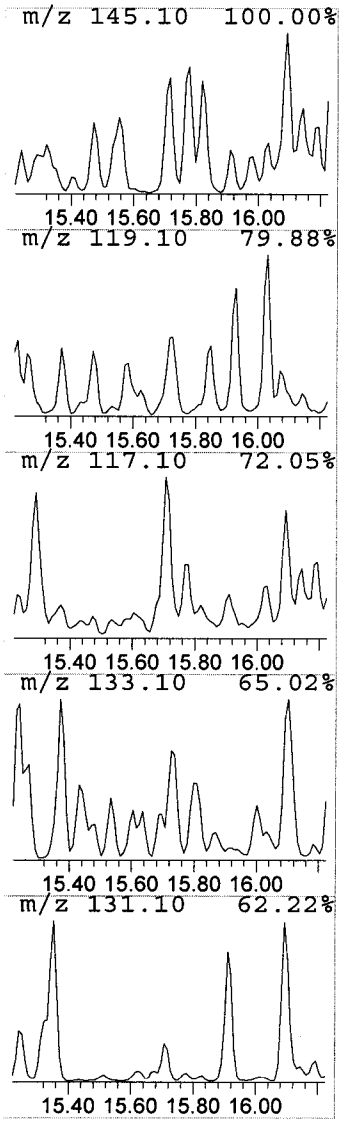
Peak Number 11 Unknown Aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.72	14.14 UG	361267	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	64
2	Benzeneacetaldehyde, .alpha.-eth...	146	C10H10O	004411-89-6	60
3	Benzene, 1-(1-methylethenyl)-2-(...	160	C12H16	005557-93-7	55
4	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	021564-91-0	50
5	1H-Indene, 2,3-dihydro-1,1,6-tri...	160	C12H16	014276-95-0	46





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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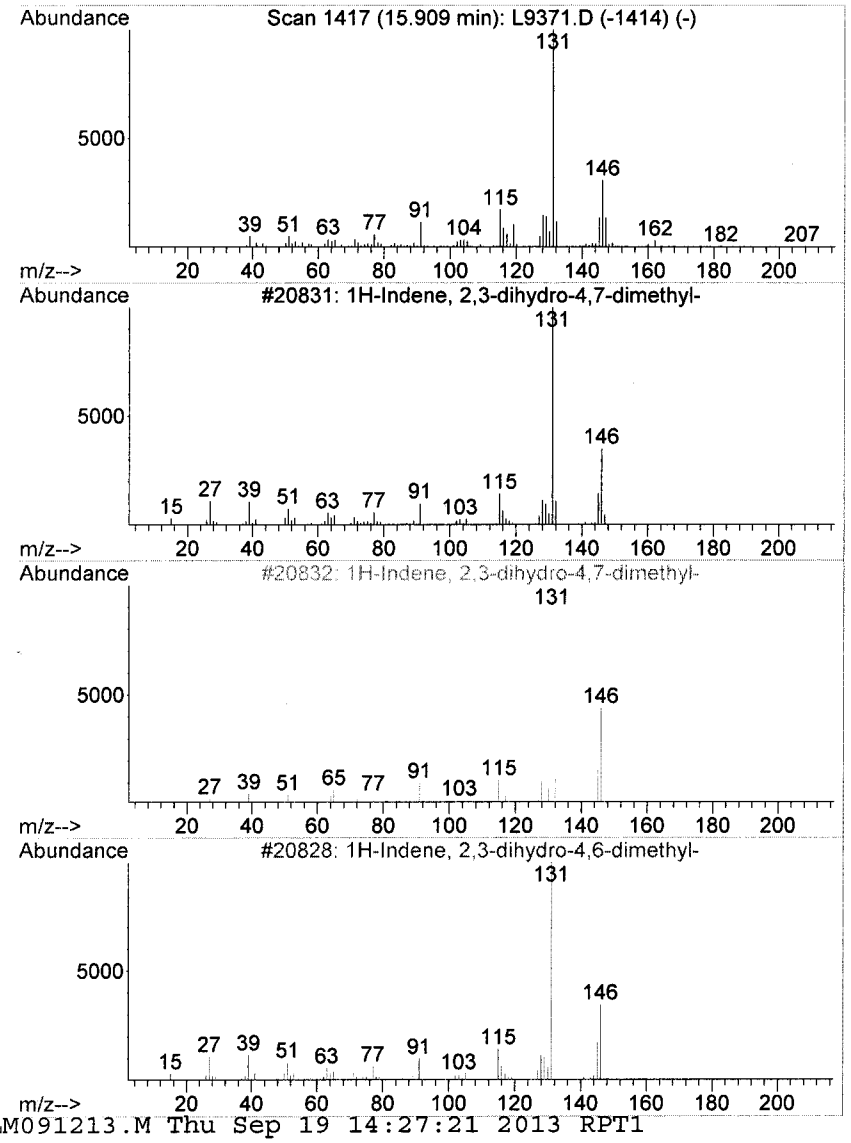
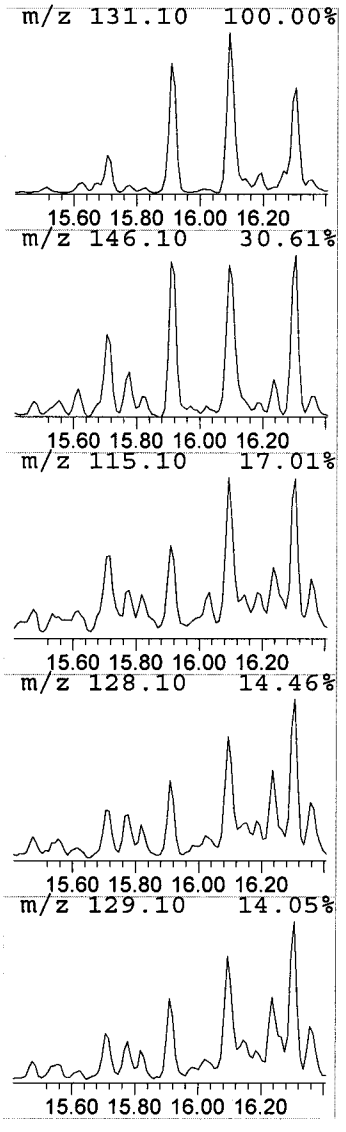
Peak Number 12 Unknown Aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.91	10.94 UG	279434	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	95
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	93
3	1H-Indene, 2,3-dihydro-4,6-dimet...	146	C11H14	001685-82-1	93
4	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90
5	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	90





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Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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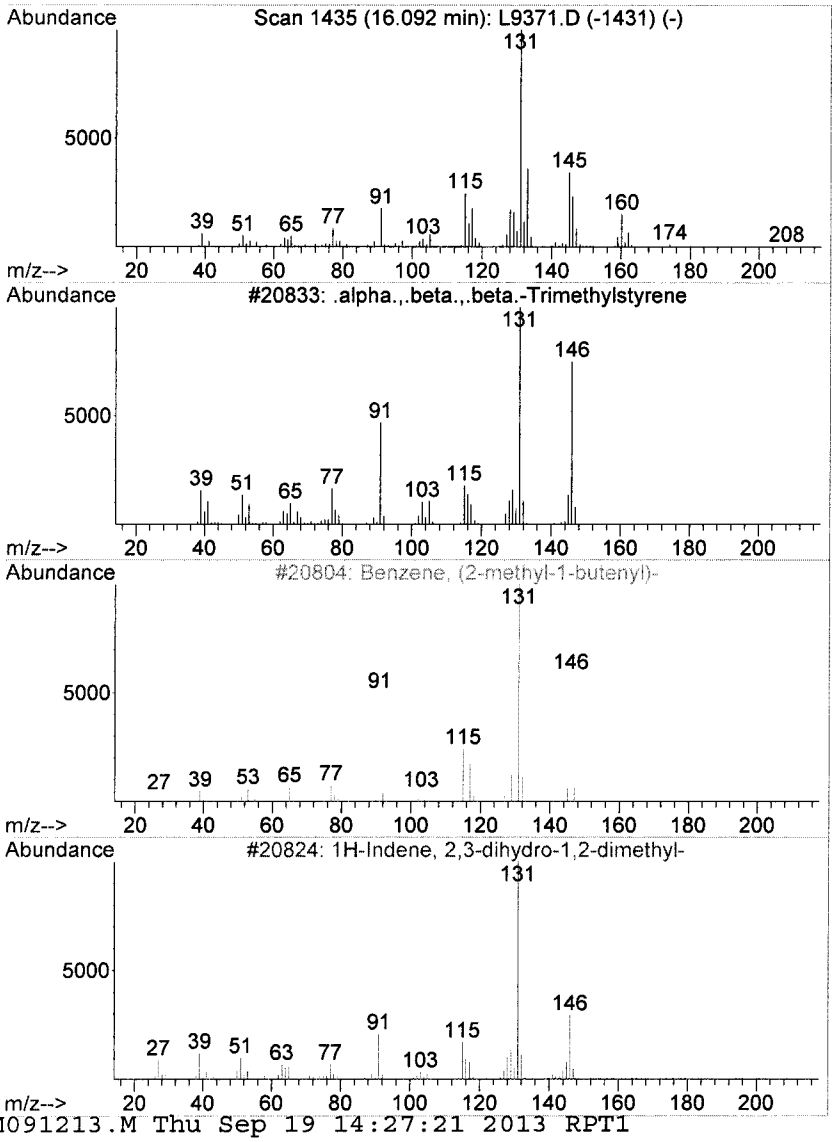
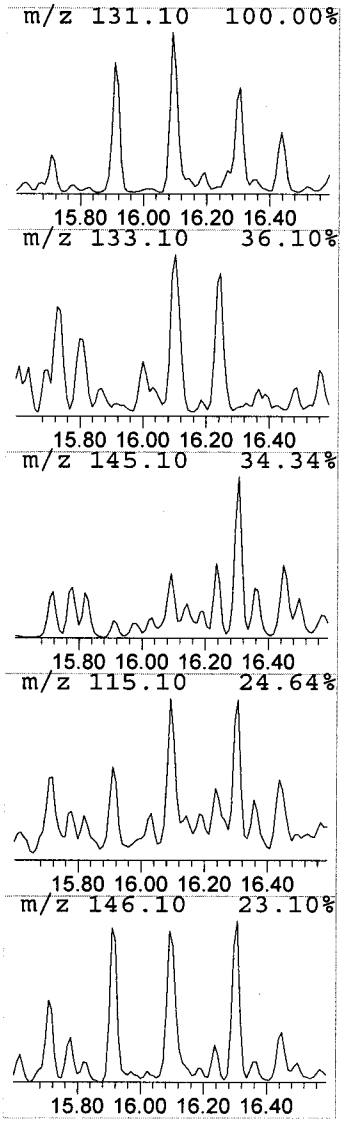
Peak Number 13 Unknown Aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.09	17.74 UG	453244	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.,.beta.,.beta.-Trimethyls...	146	C11H14	000769-57-3	76
2	Benzene, (2-methyl-1-butenyl)-	146	C11H14	056253-64-6	70
3	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	68
4	Naphthalene, 6-ethyl-1,2,3,4-tet...	160	C12H16	022531-20-0	64
5	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	62





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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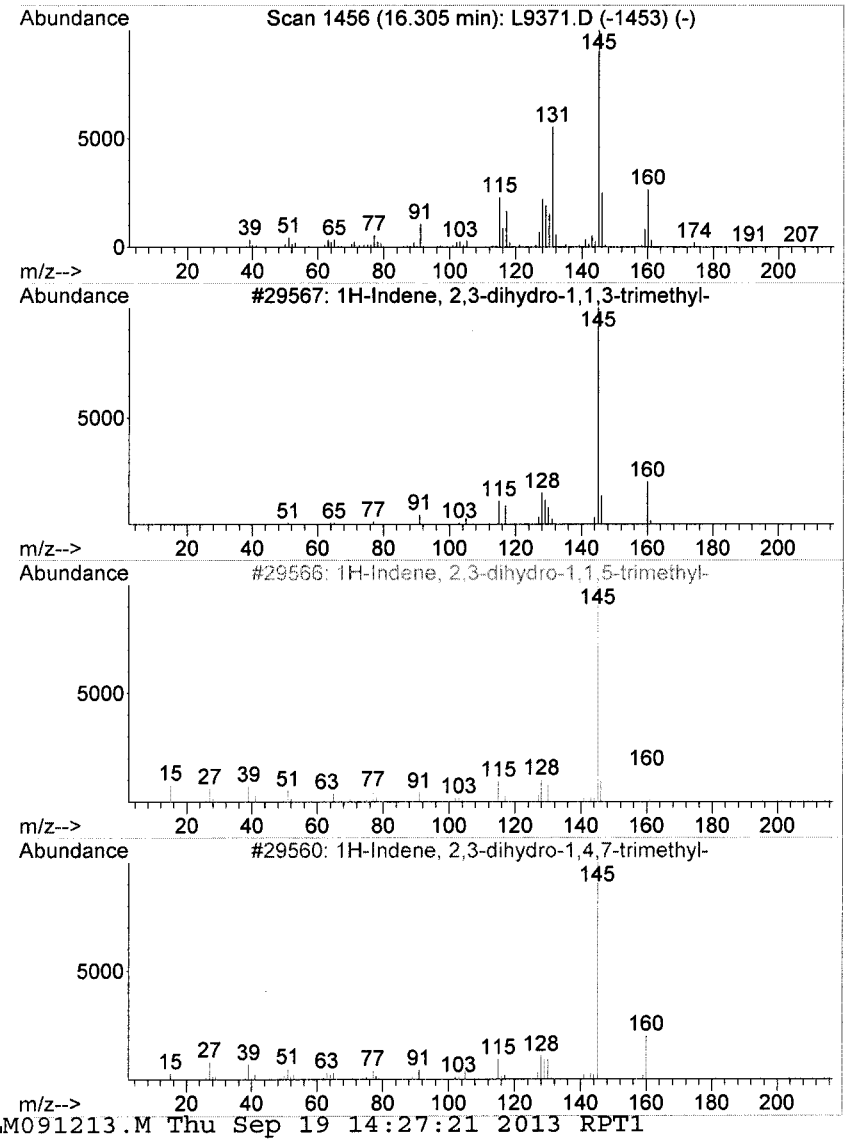
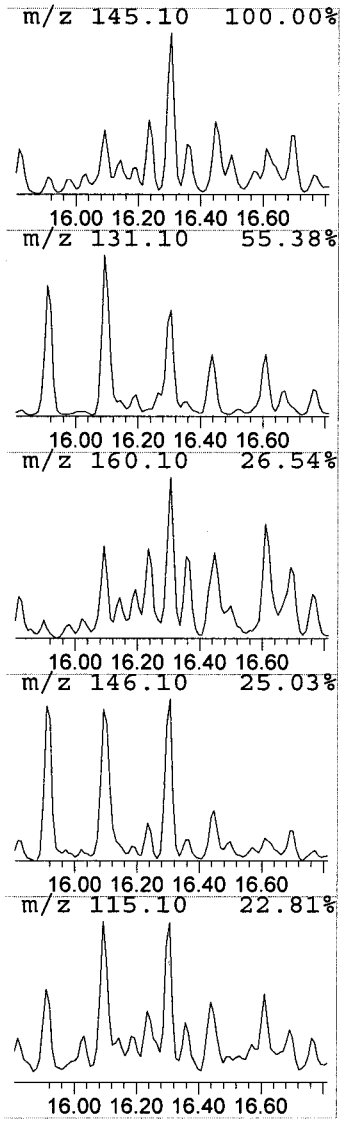
Peak Number 14 Unknown Aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.31	11.64 UG	297478	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	74
2	1H-Indene, 2,3-dihydro-1,1,5-tri...	160	C12H16	040650-41-7	70
3	1H-Indene, 2,3-dihydro-1,4,7-tri...	160	C12H16	054340-87-3	70
4	1H-Indene, 2,3-dihydro-1,5,7-tri...	160	C12H16	054340-88-4	70
5	Benzene, 1-(1-methylethenyl)-2-(...	160	C12H16	005557-93-7	64





Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9371.D
Acq On : 18 Sep 2013 20:41
Operator : MEI
Sample : AOC-2-3/11.5-1,09135-003,M,0.042g,12.6
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

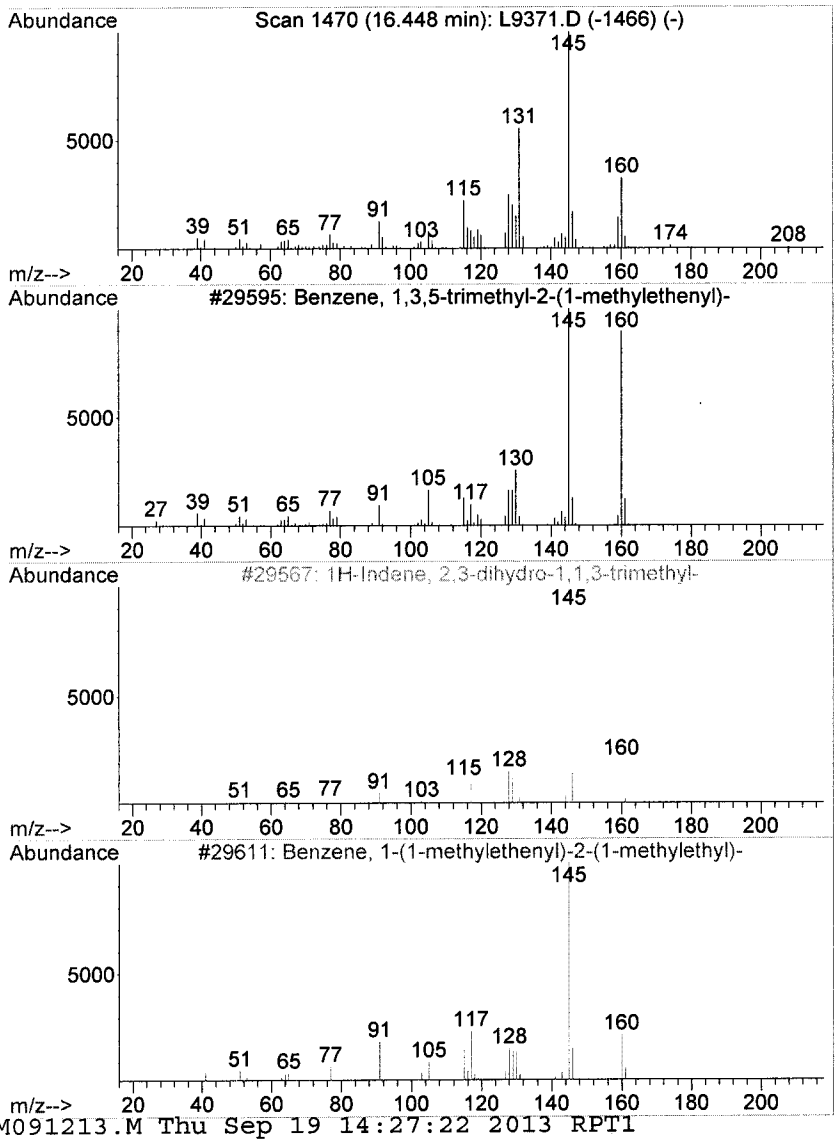
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

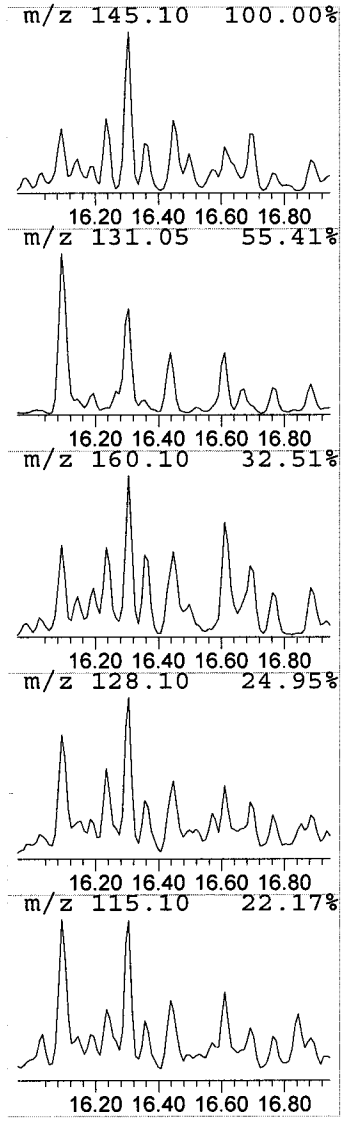
****

Peak Number 15 Unknown Aromatic Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.45	10.72 UG	273924	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-2-(1-me...	160	C12H16	014679-13-1	83
2	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	81
3	Benzene, 1-(1-methylethenyl)-2-(...	160	C12H16	005557-93-7	76
4	1H-Indene, 2,3-dihydro-1,1,5-tri...	160	C12H16	040650-41-7	70
5	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	004175-54-6	64





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 14:29:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 17 10:42:49 2013
Response via : Initial Calibration

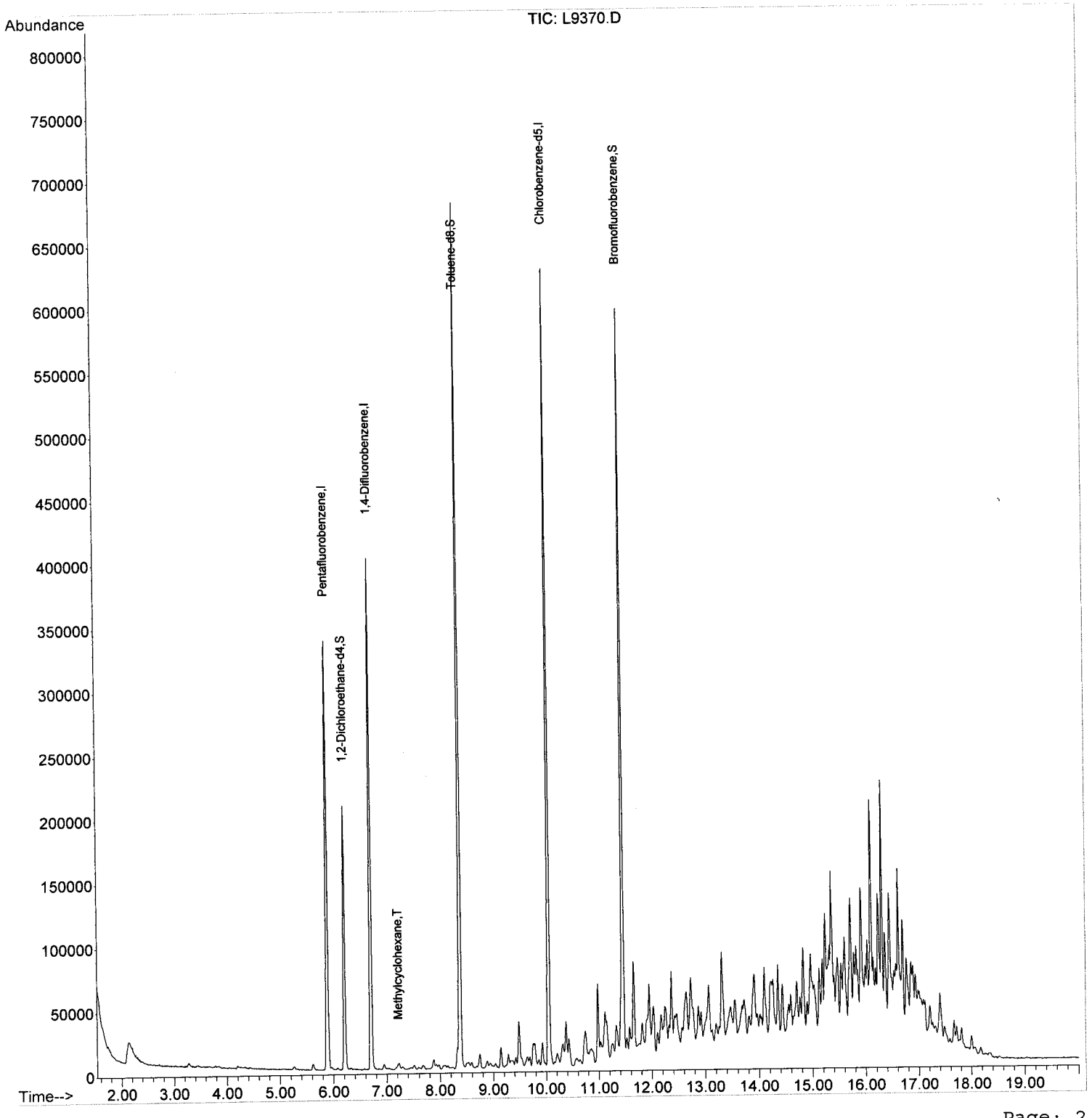
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.89	168	257837	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.71	114	358880	50.00	UG	0.00
50) Chlorobenzene-d5	10.05	117	385566	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.20	65	148666	52.47	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 104.94%			
41) Toluene-d8	8.38	98	462910	51.63	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 103.26%			
59) Bromofluorobenzene	11.45	95	202645	47.94	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 95.88%			
Target Compounds						Qvalue
83) Methylcyclohexane	7.22	55	2680m	1.90	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 14:29:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 17 10:42:49 2013
Response via : Initial Calibration



E13-09135 0095

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM091213.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.134	53	60	83	rBV3	16237	142143	10.72%	1.035%
2	5.890	421	430	436	rBV	336701	724891	54.67%	5.280%
3	6.205	455	461	470	rBV	206627	418690	31.58%	3.049%
4	6.712	505	511	523	rVB	400575	812652	61.29%	5.919%
5	7.230	552	562	566	rBV4	4828	18518	1.40%	0.135%
6	7.880	619	626	629	rBV2	7267	19142	1.44%	0.139%
7	8.377	664	675	684	rBV	679067	1325844	100.00%	9.657%
8	8.529	684	690	693	rVV5	4052	15608	1.18%	0.114%
9	8.742	702	711	717	rVB	11011	28456	2.15%	0.207%
10	8.885	717	725	727	rBV2	5288	13987	1.05%	0.102%
11	9.138	746	750	756	rBV	15957	34393	2.59%	0.250%
12	9.281	756	764	767	rBV2	10317	25883	1.95%	0.189%
13	9.341	767	770	775	rVV6	4676	18555	1.40%	0.135%
14	9.484	780	784	794	rVB	34604	90887	6.86%	0.662%
15	9.646	794	800	802	rBV4	6797	20406	1.54%	0.149%
16	9.758	807	811	818	rBV3	17213	69812	5.27%	0.508%
17	9.930	824	828	835	rVB	17667	41112	3.10%	0.299%
18	10.052	835	840	848	rBV	624760	1157426	87.30%	8.430%
19	10.204	848	855	860	rBV8	8462	27765	2.09%	0.202%
20	10.316	860	866	869	rVV4	14630	49509	3.73%	0.361%
21	10.377	869	872	875	rVV2	31644	67455	5.09%	0.491%
22	10.428	875	877	884	rVB2	20853	47690	3.60%	0.347%
23	10.580	884	892	895	rBV6	5662	21939	1.65%	0.160%
24	10.742	902	908	914	rBV4	25691	105056	7.92%	0.765%
25	10.854	915	919	926	rVB7	10897	47953	3.62%	0.349%
26	10.986	926	932	935	rBV	61160	129967	9.80%	0.947%
27	11.118	940	945	953	rVB6	35582	147606	11.13%	1.075%
28	11.250	953	958	962	rBV4	10782	37103	2.80%	0.270%
29	11.331	962	966	970	rVV5	21471	62197	4.69%	0.453%
30	11.453	970	978	983	rVV	582059	1110821	83.78%	8.090%
31	11.524	983	985	988	rVV3	8941	15310	1.15%	0.112%
32	11.575	988	990	994	rVV2	17357	39258	2.96%	0.286%
33	11.656	994	998	1003	rVB2	66442	146341	11.04%	1.066%
34	11.819	1010	1014	1018	rBV2	16903	38587	2.91%	0.281%
35	11.950	1018	1027	1030	rVV5	46061	147714	11.14%	1.076%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM091213.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	12.032	1031	1035	1039	rVB3	35335	95258	7.18%	0.694%
37	12.103	1039	1042	1045	rBV3	14645	34724	2.62%	0.253%
38	12.174	1045	1049	1052	rBV4	22641	59686	4.50%	0.435%
39	12.245	1054	1056	1061	rVB3	25413	66483	5.01%	0.484%
40	12.367	1061	1068	1071	rBV2	52560	116122	8.76%	0.846%
41	12.458	1071	1077	1084	rVB9	22298	108008	8.15%	0.787%
42	12.651	1084	1096	1099	rBV5	39349	180160	13.59%	1.312%
43	12.732	1099	1104	1112	rVB5	48106	180196	13.59%	1.312%
44	12.874	1113	1118	1121	rBV3	25063	64654	4.88%	0.471%
45	13.067	1127	1137	1146	rVB6	43743	191885	14.47%	1.398%
46	13.199	1146	1150	1154	rBV5	13637	38581	2.91%	0.281%
47	13.311	1154	1161	1167	rVB5	65631	188966	14.25%	1.376%
48	13.473	1170	1177	1181	rVV5	20345	86391	6.52%	0.629%
49	13.554	1181	1185	1189	rVB4	26312	72541	5.47%	0.528%
50	13.727	1193	1202	1207	rVB5	26590	135473	10.22%	0.987%
51	13.818	1207	1211	1214	rBV4	13606	38135	2.88%	0.278%
52	13.910	1214	1220	1228	rVB3	40893	148696	11.22%	1.083%
53	14.021	1229	1231	1235	rVB2	8722	20595	1.55%	0.150%
54	14.103	1235	1239	1245	rVB3	51061	130264	9.82%	0.949%
55	14.265	1245	1255	1260	rBV5	41470	224985	16.97%	1.639%
56	14.356	1260	1264	1267	rVB3	51527	97158	7.33%	0.708%
57	14.438	1268	1272	1276	rVB3	36786	81224	6.13%	0.592%
58	14.559	1278	1284	1285	rBV3	19906	52418	3.95%	0.382%
59	14.702	1294	1298	1302	rVB2	27821	55084	4.15%	0.401%
60	14.763	1302	1304	1307	rBV3	15563	27419	2.07%	0.200%
61	14.823	1307	1310	1315	rVB3	60680	136242	10.28%	0.992%
62	14.905	1315	1318	1319	rBV3	18537	32440	2.45%	0.236%
63	14.966	1320	1324	1336	rVB7	56340	274949	20.74%	2.003%
64	15.128	1336	1340	1343	rBV3	45089	101388	7.65%	0.738%
65	15.189	1343	1346	1348	rBV	35316	58944	4.45%	0.429%
66	15.240	1348	1351	1354	rBV3	67848	139874	10.55%	1.019%
67	15.351	1360	1362	1369	rVB2	102420	232478	17.53%	1.693%
68	15.473	1370	1374	1377	rVB3	43215	113358	8.55%	0.826%
69	15.534	1377	1380	1383	rBV3	38879	83003	6.26%	0.605%
70	15.605	1383	1387	1392	rVB5	61464	164617	12.42%	1.199%
71	15.717	1392	1398	1401	rBV5	92084	253595	19.13%	1.847%
72	15.778	1401	1404	1406	rBV	35847	65334	4.93%	0.476%
73	15.910	1414	1417	1423	rBV3	89360	217247	16.39%	1.582%
74	16.032	1423	1429	1431	rVV3	47218	123293	9.30%	0.898%
75	16.092	1431	1435	1443	rVV2	155727	358377	27.03%	2.610%

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM091213.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	16.235	1447	1449	1453	rVV3	79419	167665	12.65%	1.221%
77	16.306	1453	1456	1459	rVV	167702	254119	19.17%	1.851%
78	16.356	1459	1461	1466	rVB2	59664	128005	9.65%	0.932%
79	16.448	1466	1470	1476	rBV4	90495	256278	19.33%	1.867%
80	16.610	1483	1486	1491	rVB2	88061	137312	10.36%	1.000%
81	16.691	1491	1494	1498	rVB3	74546	148906	11.23%	1.085%
82	16.762	1498	1501	1507	rBV5	44311	125230	9.45%	0.912%
83	16.854	1507	1510	1512	rBV3	34972	76739	5.79%	0.559%
84	16.935	1516	1518	1521	rVB2	19478	30248	2.28%	0.220%
85	17.209	1541	1545	1553	rBV5	18157	46050	3.47%	0.335%
86	17.402	1559	1564	1569	rVB4	34204	98373	7.42%	0.716%
87	17.483	1570	1572	1579	rVB7	12032	36164	2.73%	0.263%
88	17.666	1586	1590	1593	rBV3	17275	39318	2.97%	0.286%
89	17.717	1593	1595	1598	rVV3	14391	25897	1.95%	0.189%
90	17.808	1602	1604	1613	rVB3	15786	38134	2.88%	0.278%
91	18.001	1619	1623	1628	rBV	10723	22280	1.68%	0.162%
92	18.174	1636	1640	1645	rVB7	5497	13618	1.03%	0.099%
93	18.326	1653	1655	1665	rVB7	3718	14734	1.11%	0.107%

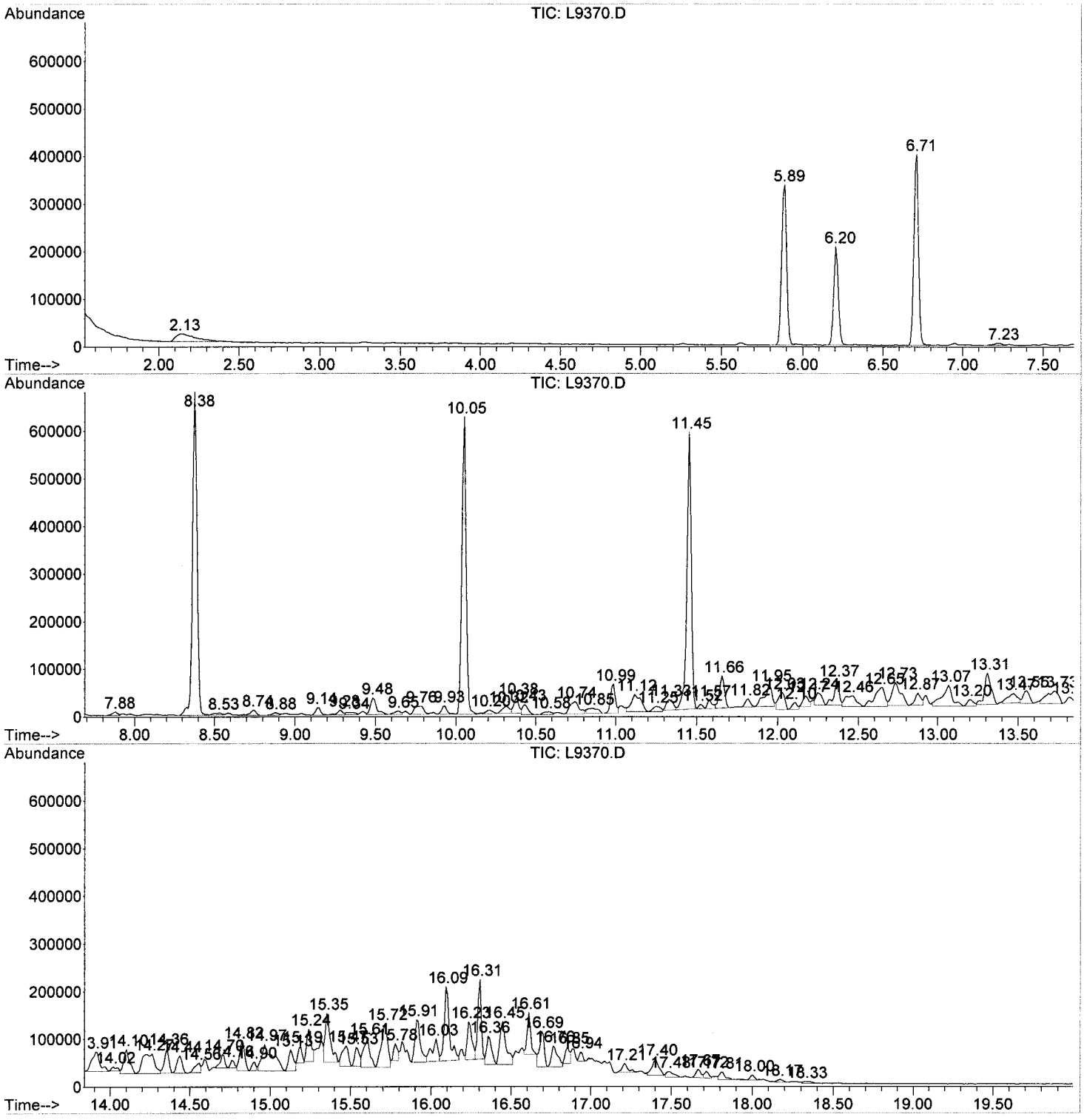
Sum of corrected areas: 13729991

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

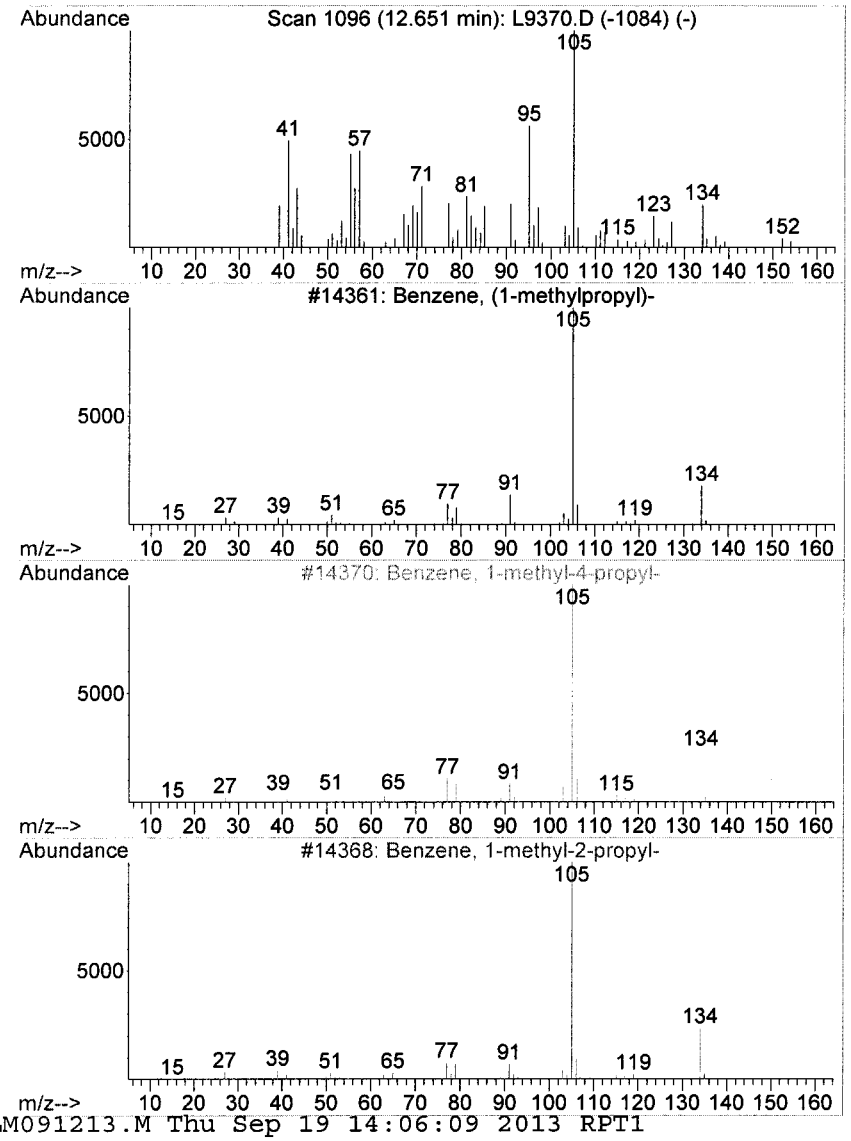
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Unknown Aromatic Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.65	7.78 UG	180160	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	38
2	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	30
3	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	25
4	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	25
5	Cyclopentene, 1-isopropyl-4,5-di...	138	C10H18	007712-74-5	25



Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

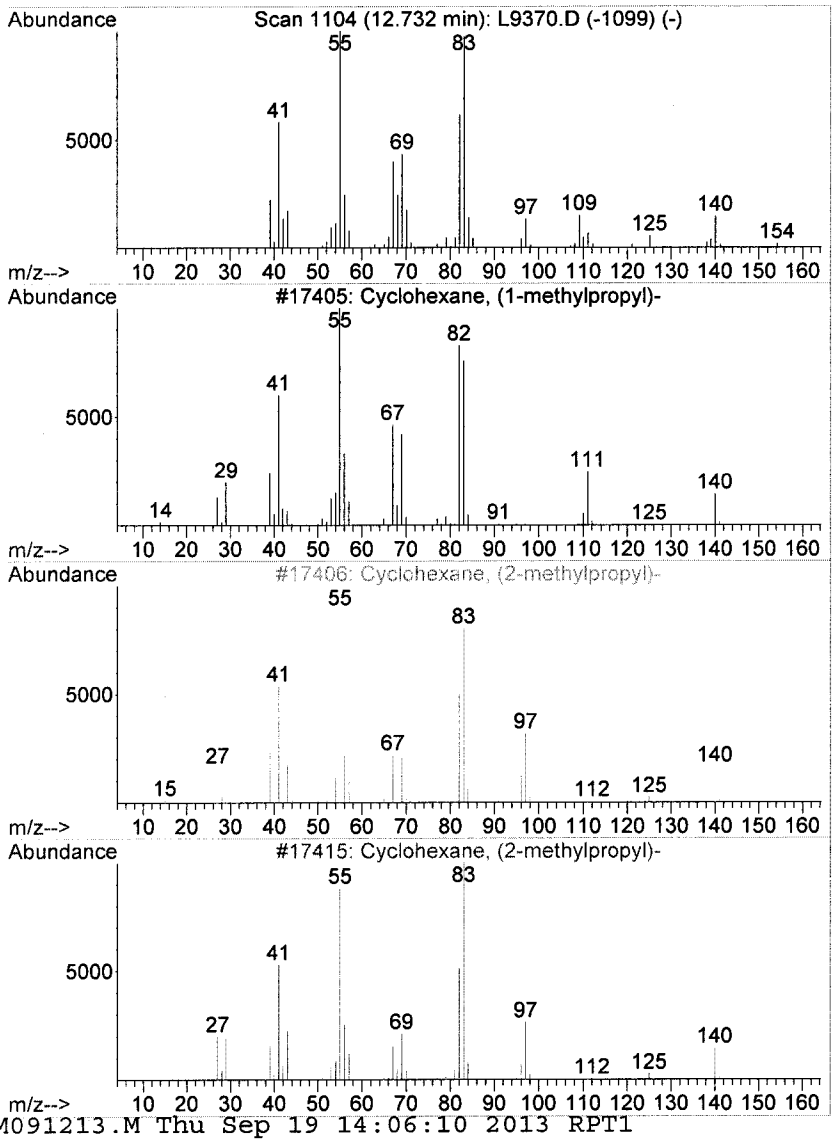
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

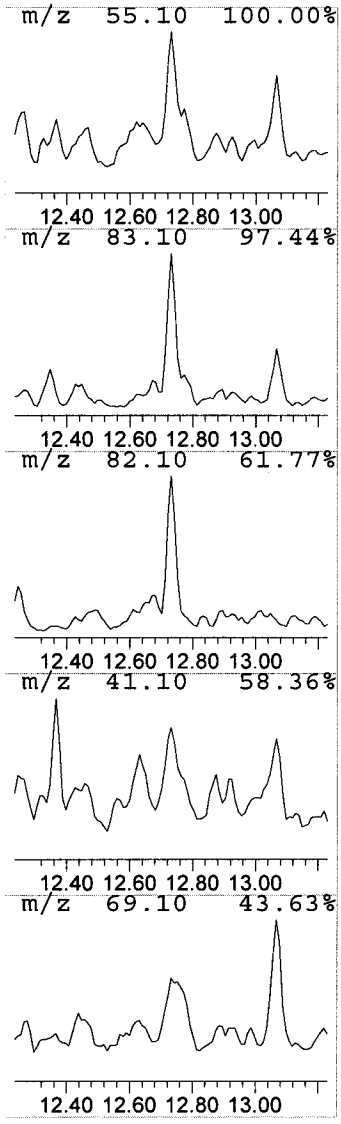
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 Unknown Hydrocarbon Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.73	7.78 UG	180196	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, (1-methylpropyl)-	140	C10H20	007058-01-7	70
2	Cyclohexane, (2-methylpropyl)-	140	C10H20	001678-98-4	62
3	Cyclohexane, (2-methylpropyl)-	140	C10H20	001678-98-4	58
4	Cyclohexane, butyl-	140	C10H20	001678-93-9	58
5	Cyclohexane, butyl-	140	C10H20	001678-93-9	50





Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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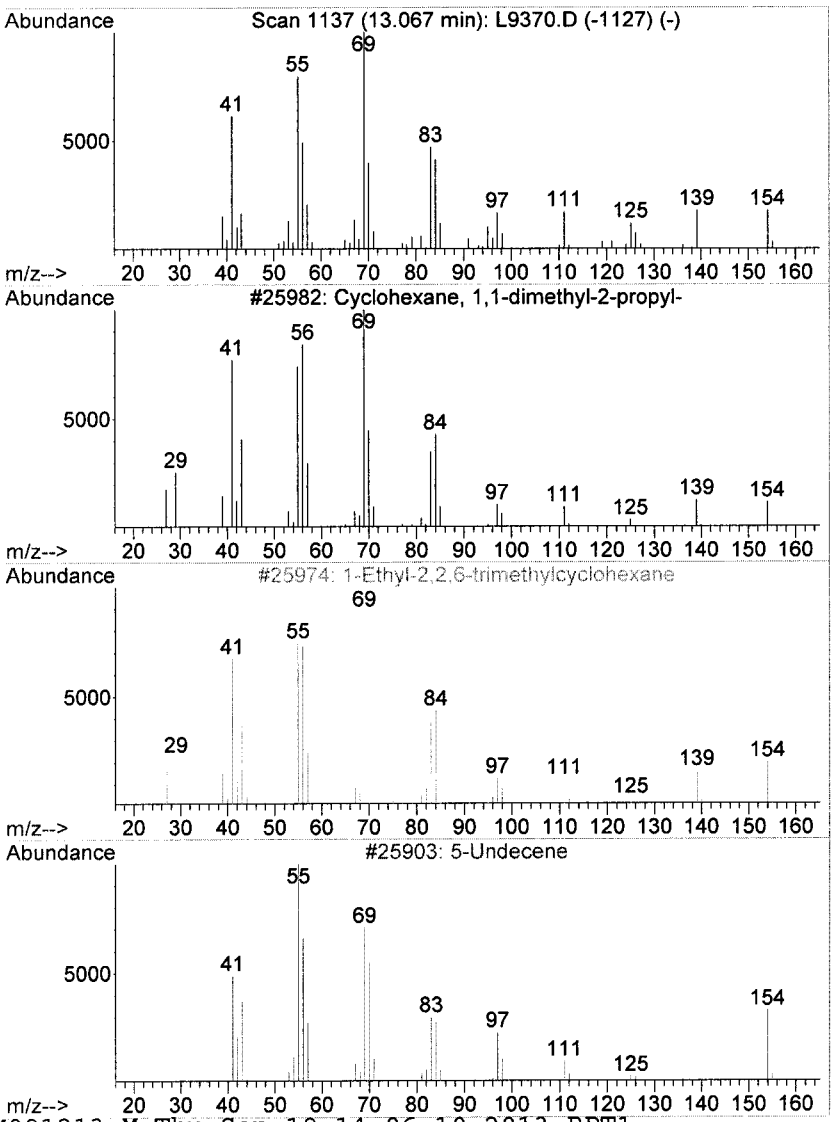
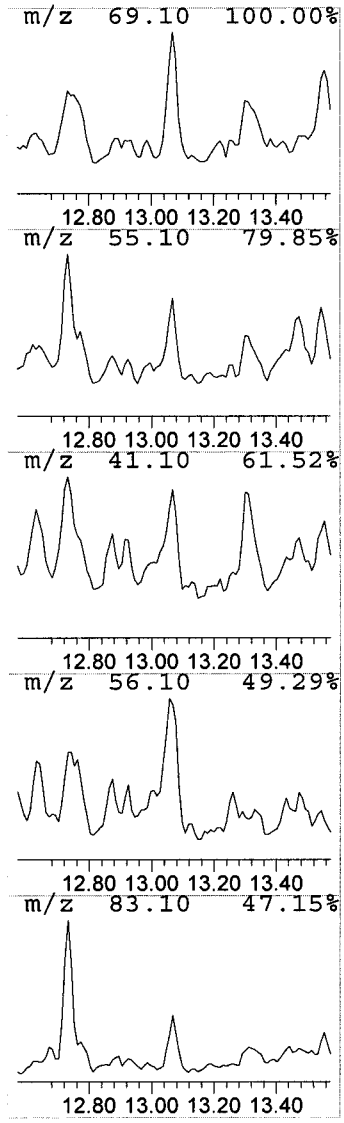
Peak Number 4 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.07	8.29 UG	191885	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,1-dimethyl-2-propyl-	154	C11H22	081983-71-3	90
2	1-Ethyl-2,2,6-trimethylcyclohexane	154	C11H22	071186-27-1	64
3	5-Undecene	154	C11H22	004941-53-1	64
4	Cyclopentane, hexyl-	154	C11H22	004457-00-5	58
5	Cyclohexanone, 4-ethyl-3,4-dimet...	154	C10H18O	017429-42-4	50





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ALS Vial : 24 Sample Multiplier: 1

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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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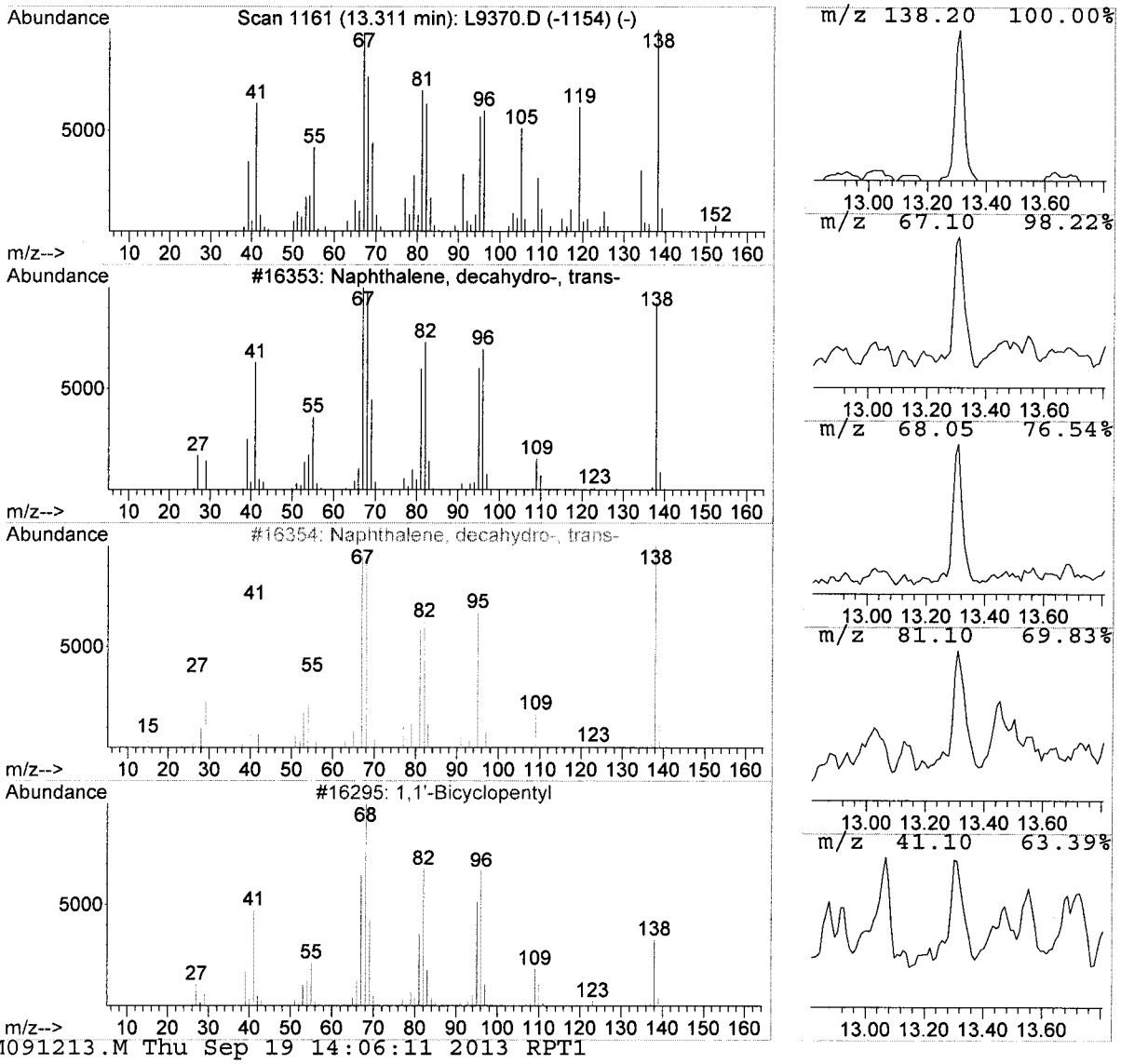
Peak Number 5 Unknown PAH Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	8.16 UG	188966	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	96
2	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	96
3	1,1'-Bicyclopentyl	138	C10H18	001636-39-1	95
4	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	93
5	Naphthalene, decahydro-	138	C10H18	000091-17-8	93



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ALS Vial : 24 Sample Multiplier: 1

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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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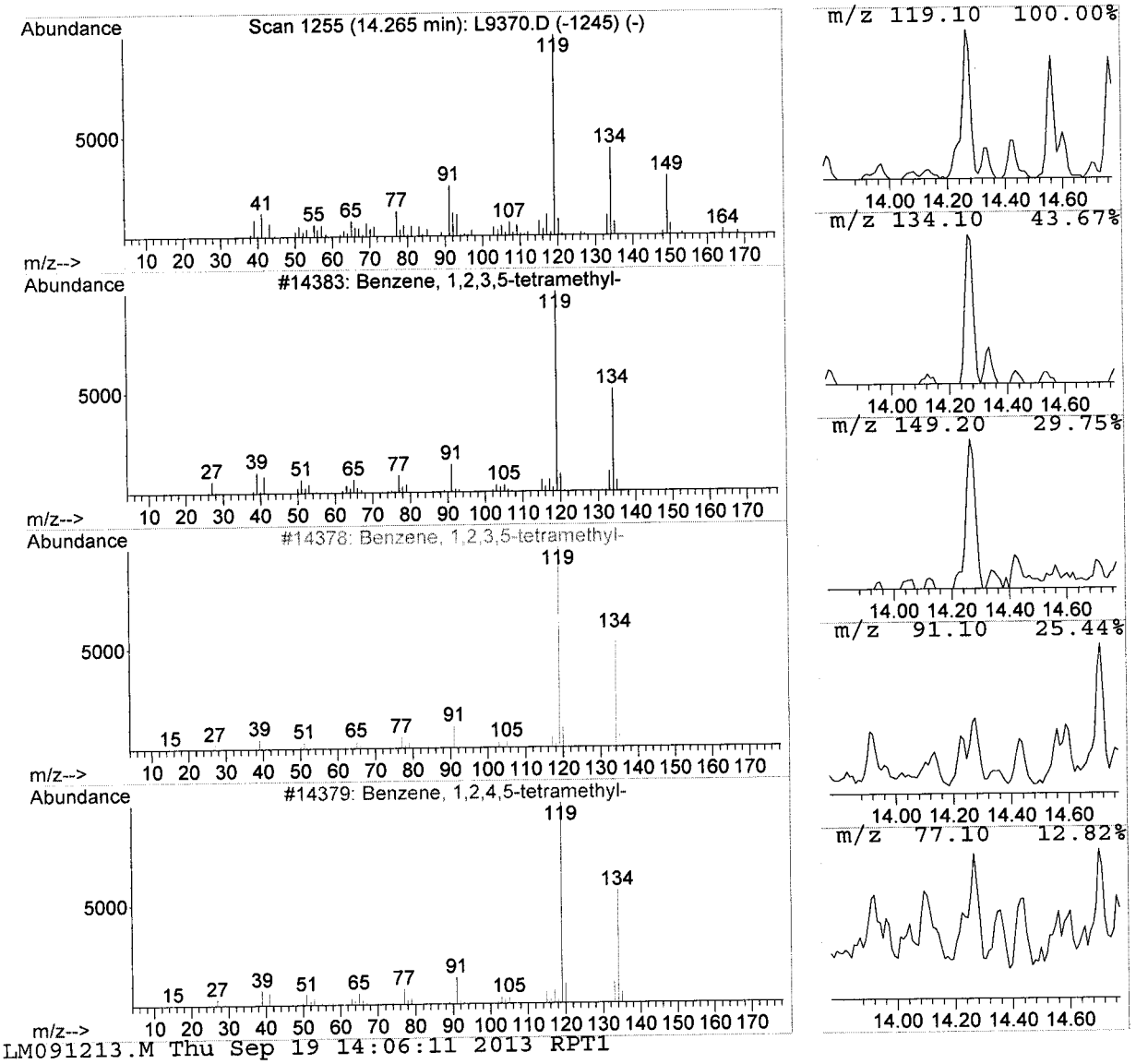
Peak Number 6 Unknown Aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.27	9.72 UG	224985	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	93
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	93
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	90
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	81
5	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	81



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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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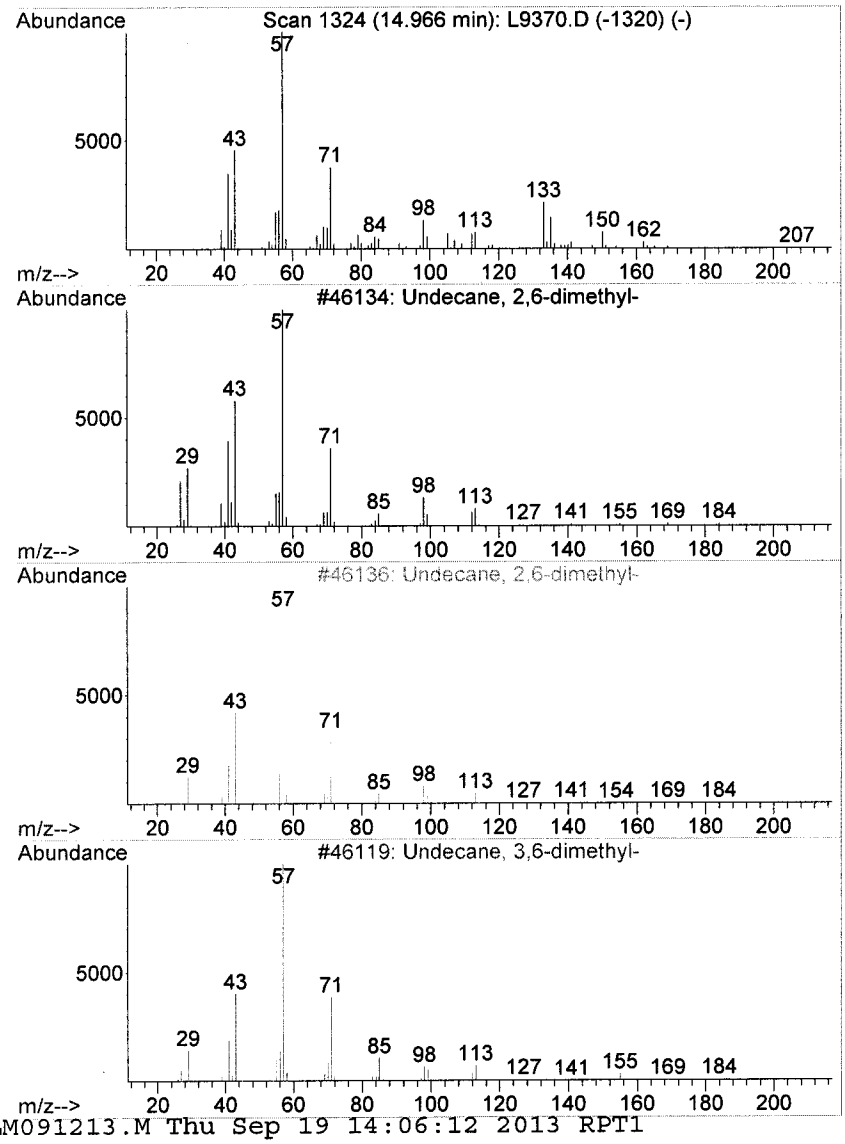
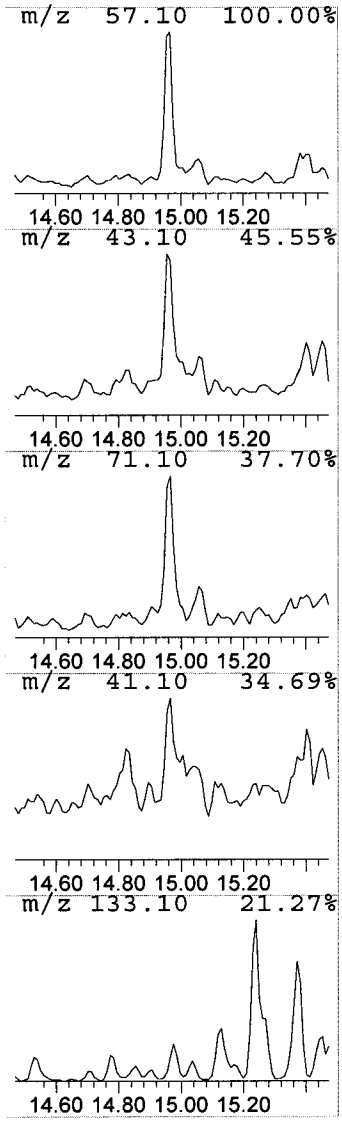
Peak Number 7 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.97	11.88 UG	274949	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	49
2	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	47
3	Undecane, 3,6-dimethyl-	184	C13H28	017301-28-9	47
4	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	38
5	2,2-Dimethyl-3-octanone	156	C10H20O	005340-64-7	35





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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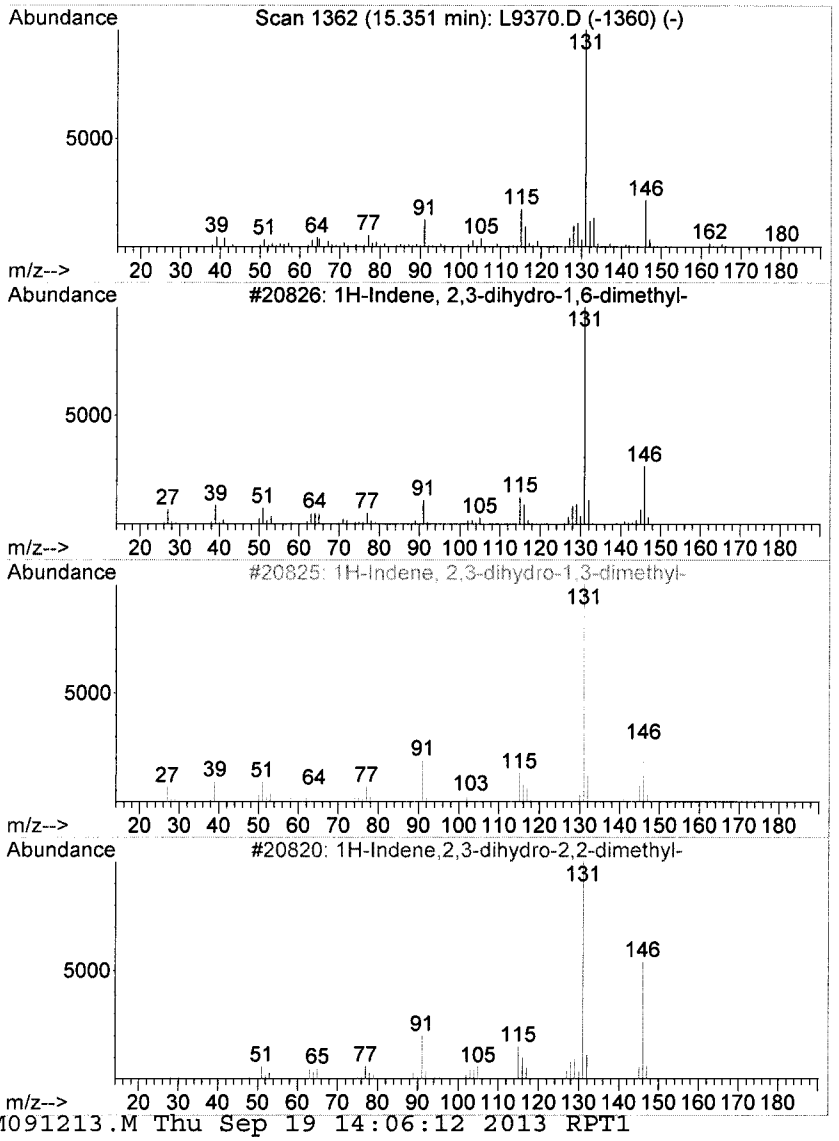
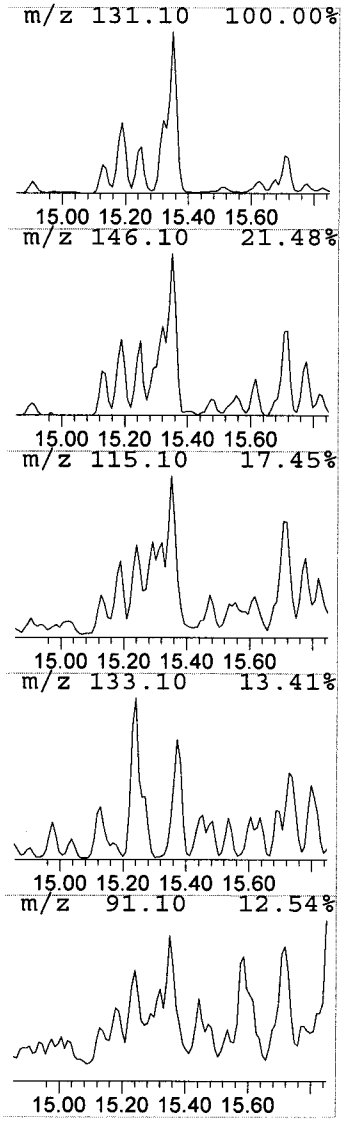
Peak Number 8 Unknown Aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.35	10.04 UG	232478	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	93
2	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	90
3	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	90
4	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90
5	1H-Indene, 2,3-dihydro-1,1-dimet...	146	C11H14	004912-92-9	90





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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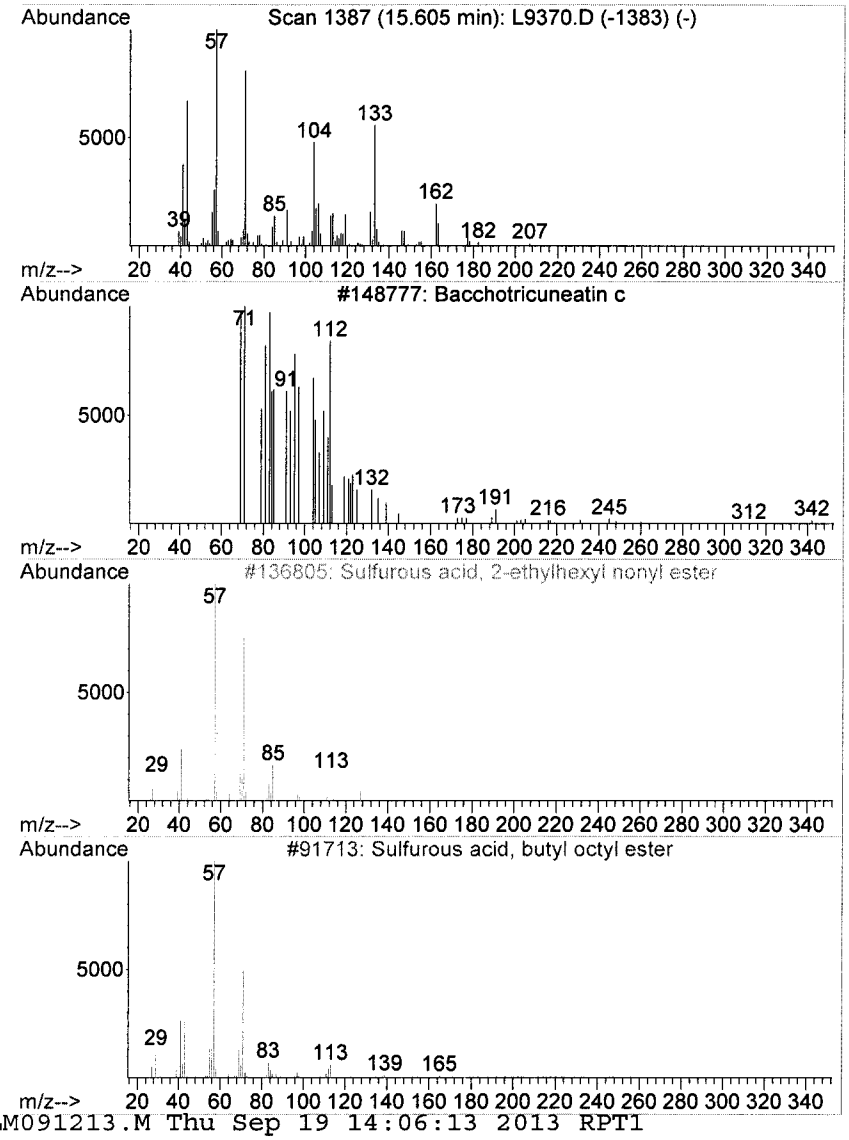
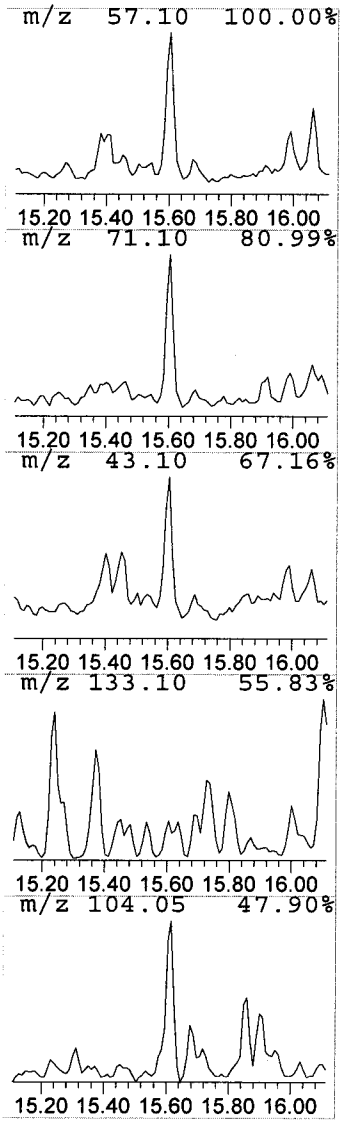
Peak Number 9 Unknown VOA Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.61	7.11 UG	164617	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bacchotricuneatin c	342	C20H22O5	066563-30-2	30
2	Sulfurous acid, 2-ethylhexyl non...	320	C17H36O3S	1000309-19-2	27
3	Sulfurous acid, butyl octyl ester	250	C12H26O3S	1000309-17-5	27
4	Undecane, 5-methyl-	170	C12H26	001632-70-8	27
5	Octane, 3,5-dimethyl-	142	C10H22	015869-93-9	22





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Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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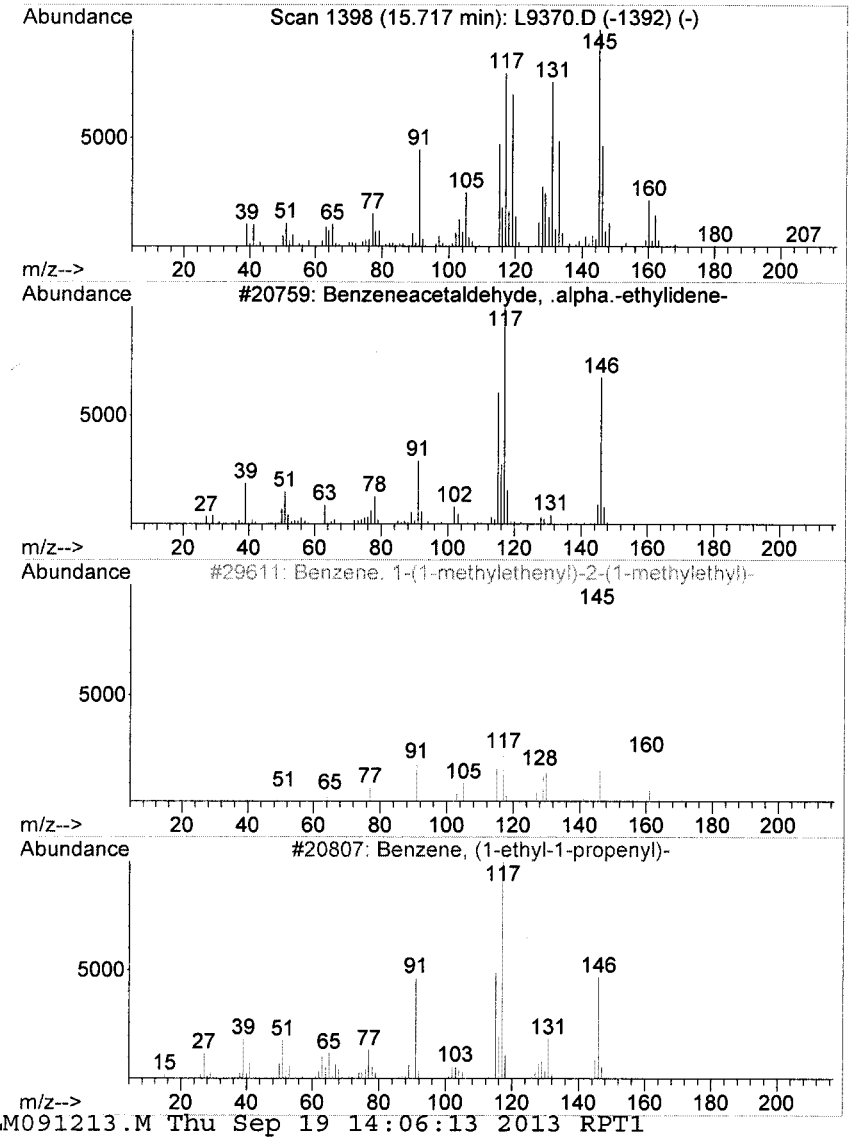
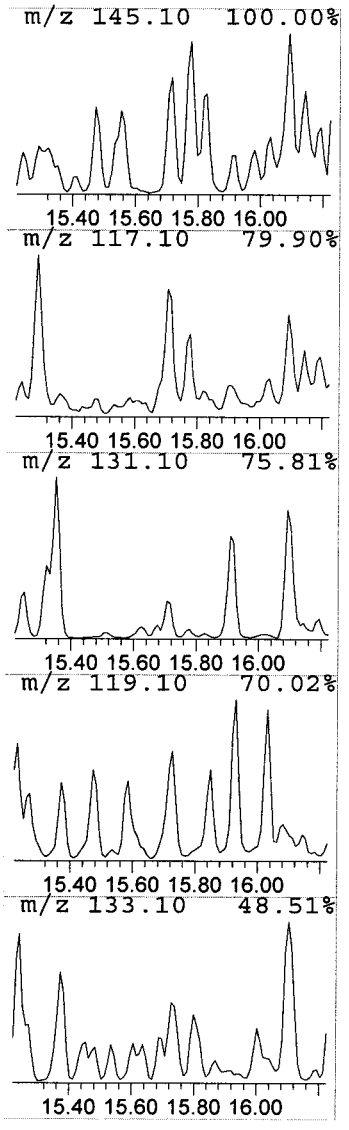
Peak Number 10 Unknown Aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.72	10.96 UG	253595	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneacetaldehyde, .alpha.-eth...	146	C10H10O	004411-89-6	70
2	Benzene, 1-(1-methylethenyl)-2-(...	160	C12H16	005557-93-7	50
3	Benzene, (1-ethyl-1-propenyl)-	146	C11H14	004701-36-4	42
4	Benzene, (1-ethyl-1-propenyl)-	146	C11H14	004701-36-4	42
5	Benzene, 1-(2-butenyl)-2,3-dimet...	160	C12H16	054340-85-1	42





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ALS Vial : 24 Sample Multiplier: 1

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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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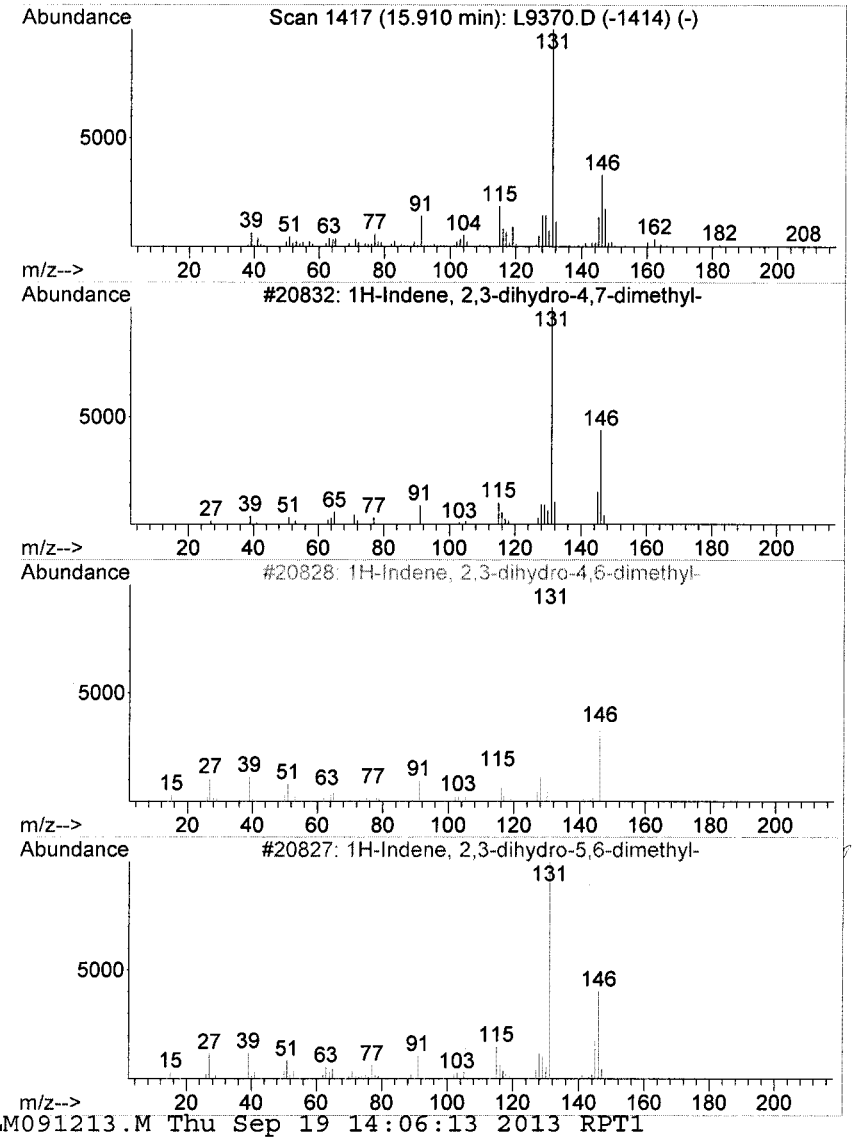
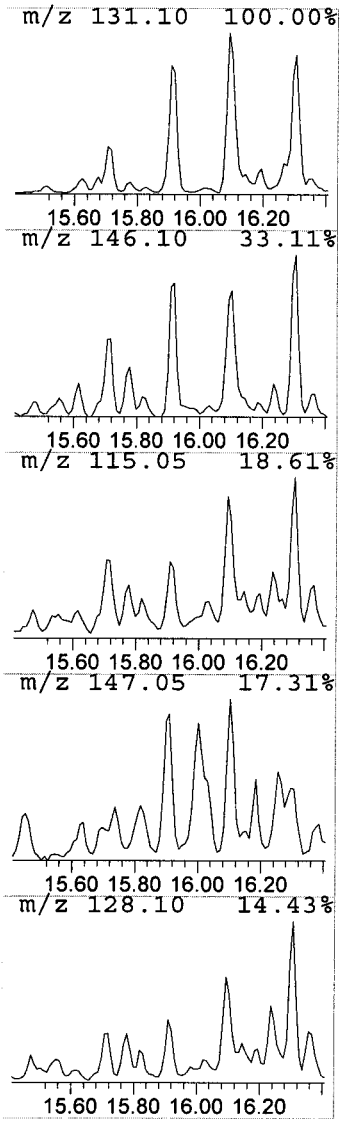
Peak Number 11 Unknown Aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.91	9.38 UG	217247	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	93
2	1H-Indene, 2,3-dihydro-4,6-dimet...	146	C11H14	001685-82-1	93
3	1H-Indene, 2,3-dihydro-5,6-dimet...	146	C11H14	001075-22-5	91
4	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90
5	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	90





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ALS Vial : 24 Sample Multiplier: 1

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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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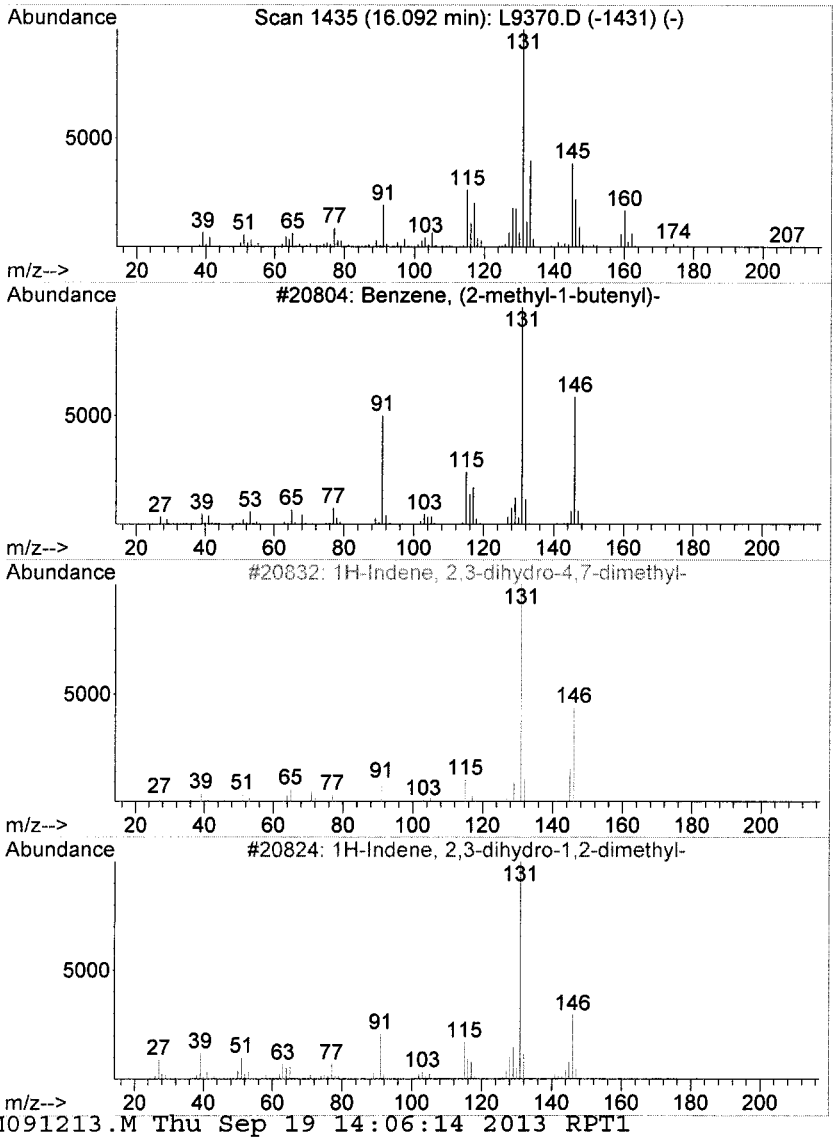
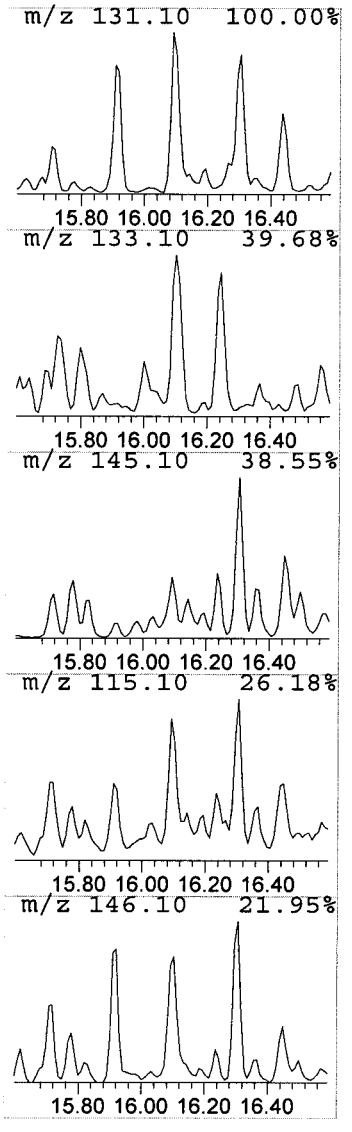
Peak Number 12 Unknown Aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.09	15.48 UG	358377	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (2-methyl-1-butenyl)-	146	C11H14	056253-64-6	60
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	55
3	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	49
4	Naphthalene, 6-ethyl-1,2,3,4-tet...	160	C12H16	022531-20-0	49
5	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	47





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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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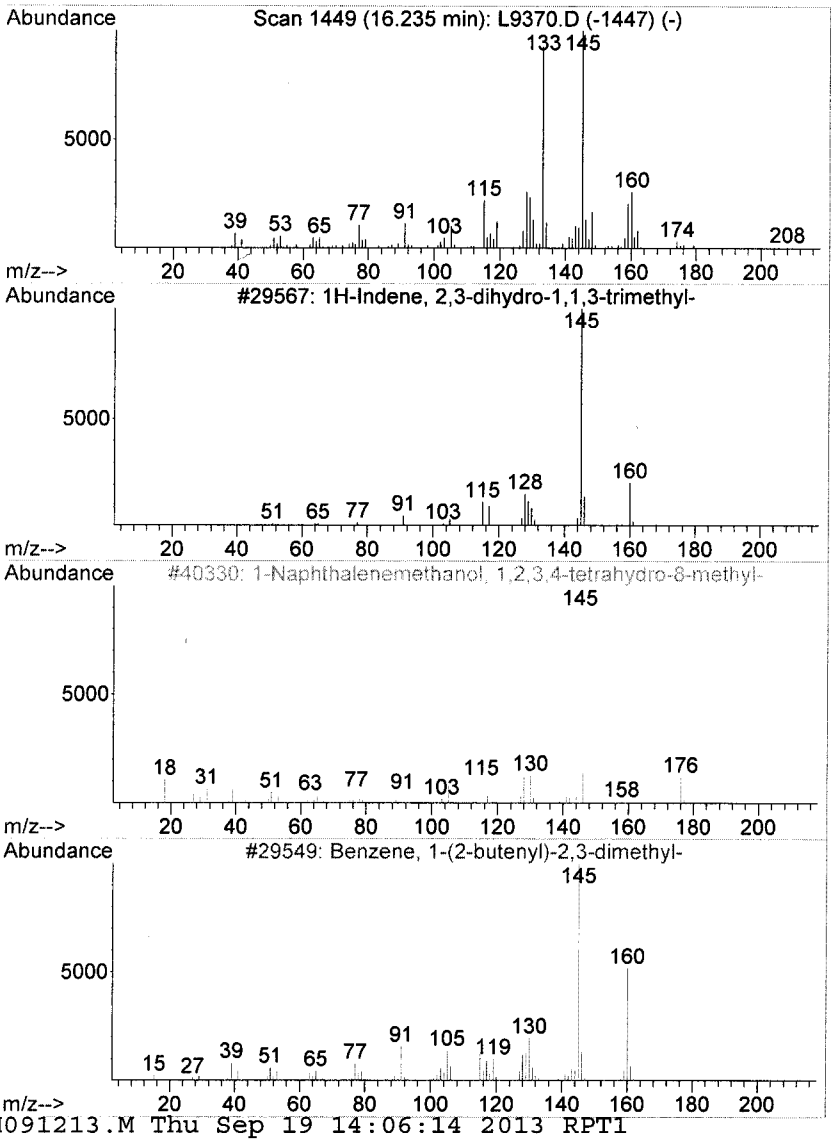
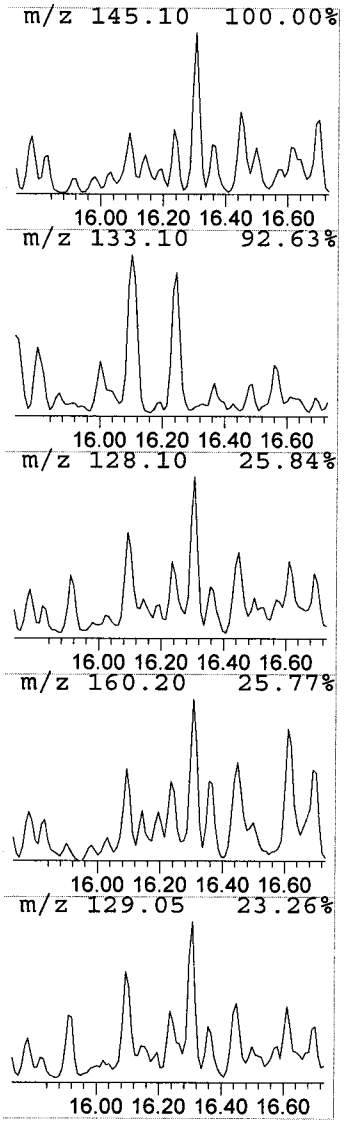
Peak Number 13 Unknown Aromatic Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.23	7.24 UG	167665	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	55
2	1-Naphthalenemethanol, 1,2,3,4-t...	176	C12H16O	036052-28-5	50
3	Benzene, 1-(2-butenyl)-2,3-dimet...	160	C12H16	054340-85-1	49
4	Benzene, 1,3,5-trimethyl-2-(1-me...	160	C12H16	014679-13-1	49
5	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	001076-61-5	43





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ALS Vial : 24 Sample Multiplier: 1

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Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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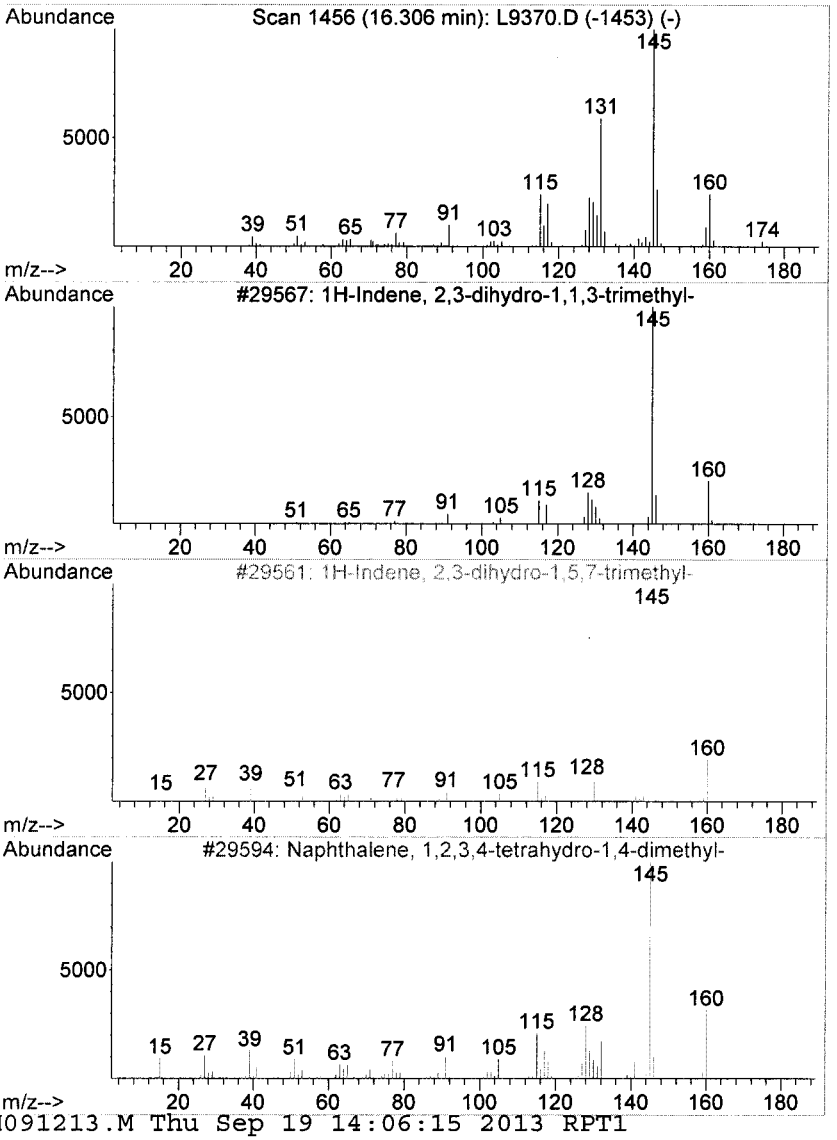
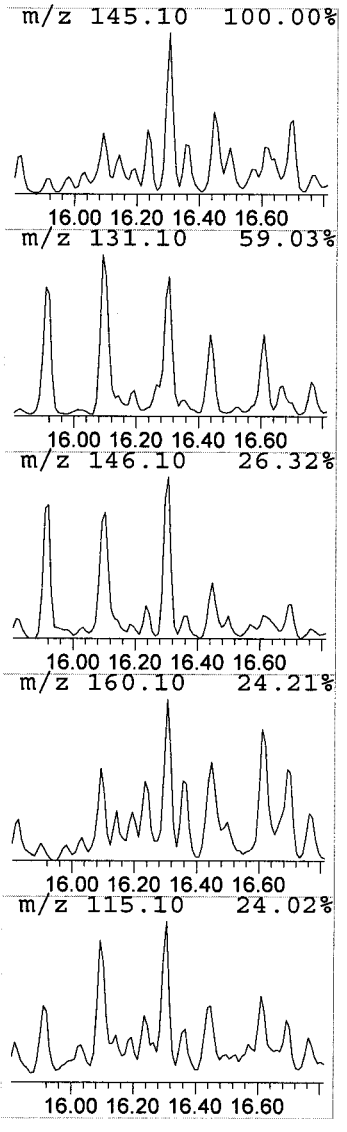
Peak Number 14 Unknown Aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.31	10.98 UG	254119	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	74
2	1H-Indene, 2,3-dihydro-1,5,7-tri...	160	C12H16	054340-88-4	70
3	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	004175-54-6	68
4	1H-Indene, 2,3-dihydro-1,1,5-tri...	160	C12H16	040650-41-7	64
5	1H-Indene, 2,3-dihydro-1,4,7-tri...	160	C12H16	054340-87-3	64





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Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

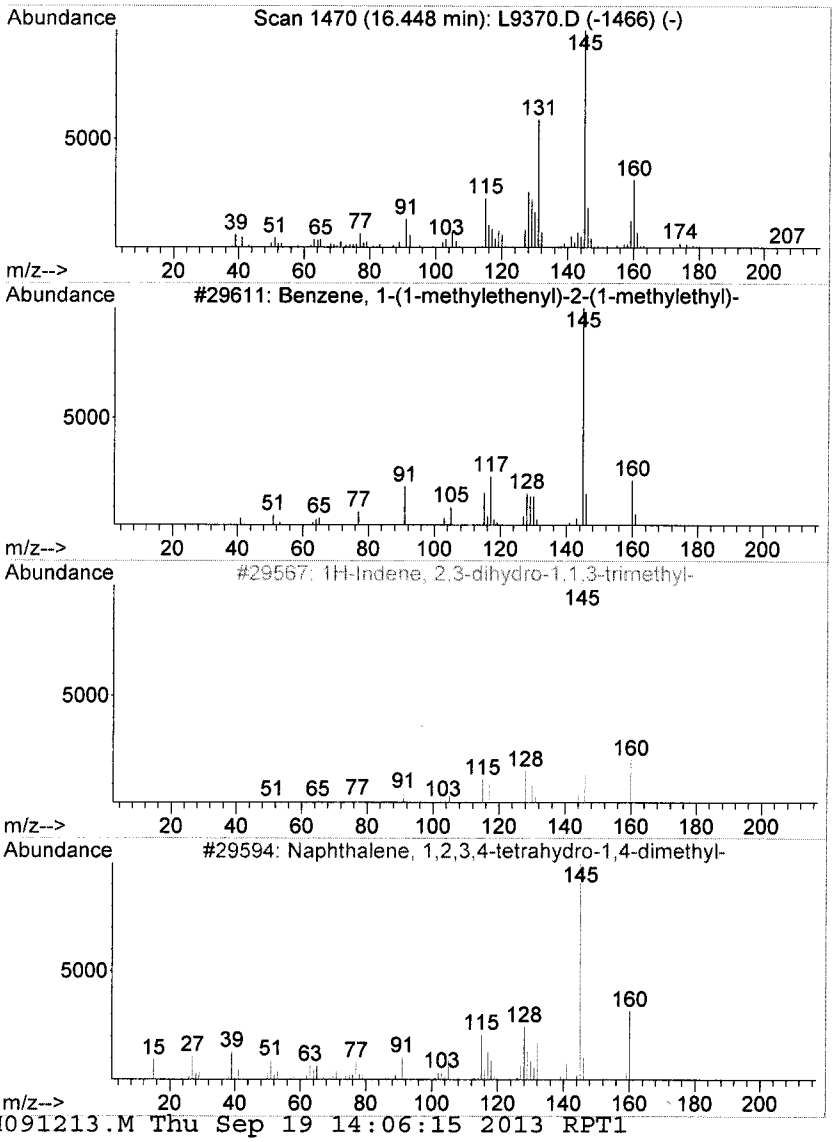
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

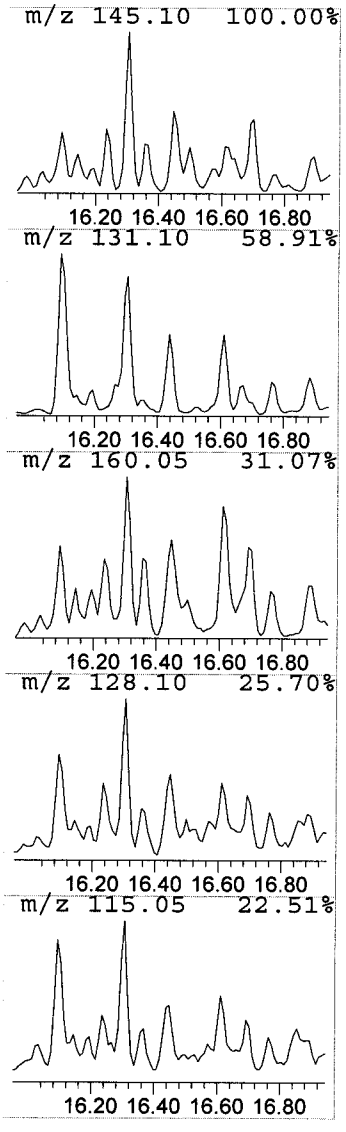
****

Peak Number 15 Unknown Aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.45	11.07 UG	256278	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-(1-methylethenyl)-2-(...	160	C12H16	005557-93-7	89
2	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	81
3	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	004175-54-6	64
4	Benzene, 1,3,5-trimethyl-2-(1-me...	160	C12H16	014679-13-1	64
5	Ethanone, 1-[4-(1-methylethenyl)...	160	C11H12O	005359-04-6	55





Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9370.D
Acq On : 18 Sep 2013 20:15
Operator : MEI
Sample : AOC-2-4/10-10.,09135-004,M,0.022g,20.4
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,2
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

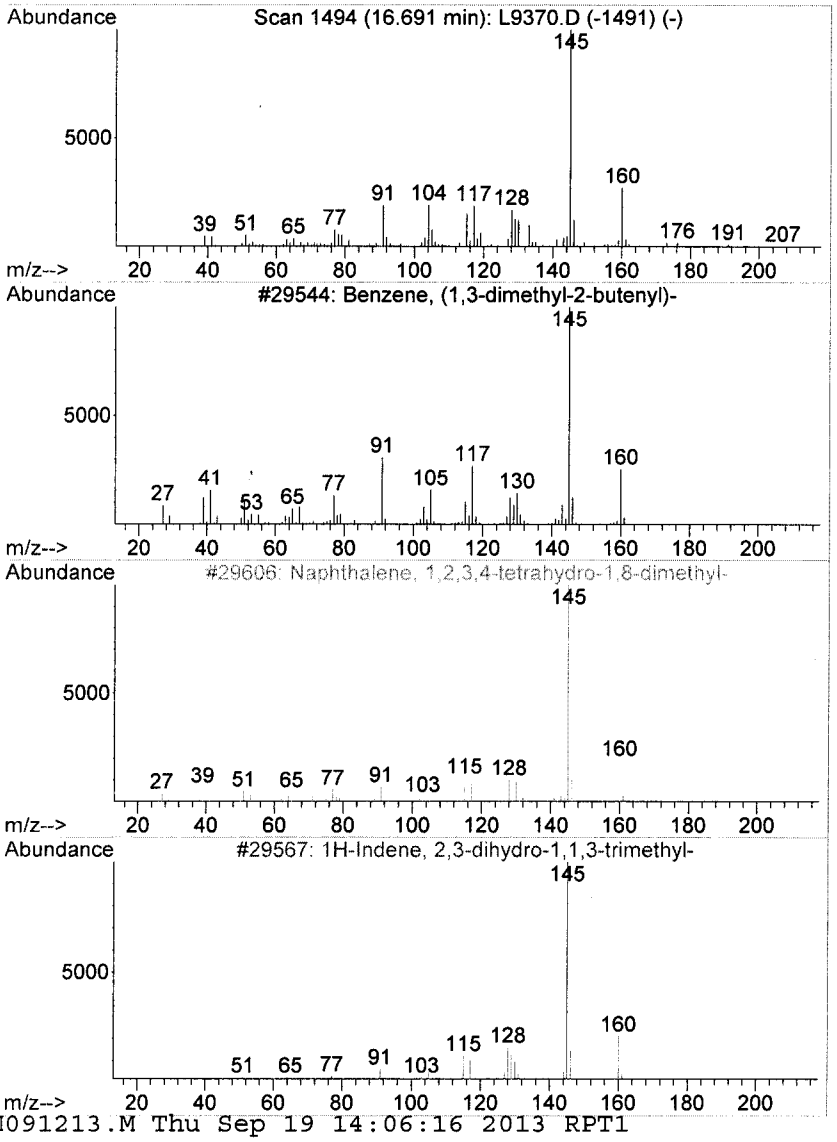
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

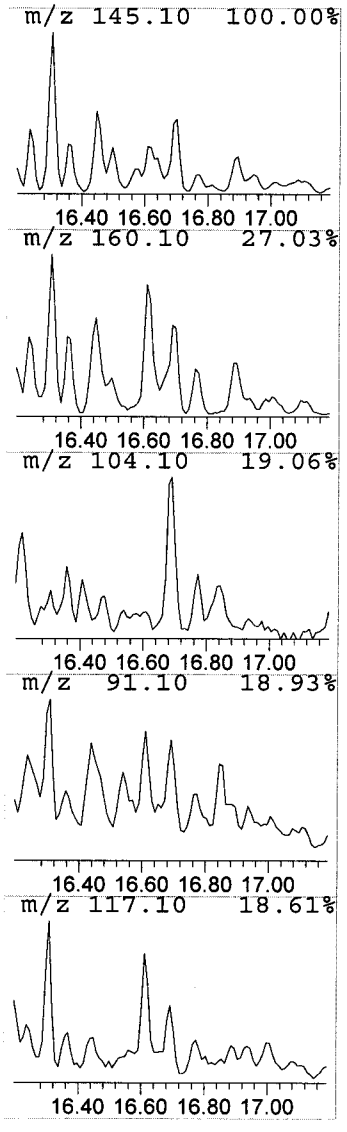
****

Peak Number 16 Unknown Aromatic Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.69	6.43 UG	148906	Chlorobenzene-d5	10.05

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1,3-dimethyl-2-butenyl)-	160	C12H16	050704-01-3	81
2	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	025419-33-4	81
3	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	76
4	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	001985-59-7	74
5	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	72





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7685.D
Acq On : 19 Sep 2013 16:42
Operator : XING
Sample : AOC-4/7.5-8,09135-005,S,3.8g,9.40
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 20 09:05:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	551347	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	715409	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	661566	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	695387	49.04	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 98.08%			
41) Toluene-d8	8.563	98	995669	44.03	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 88.06%			
59) Bromofluorobenzene	11.639	95	522036	42.44	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 84.88%			

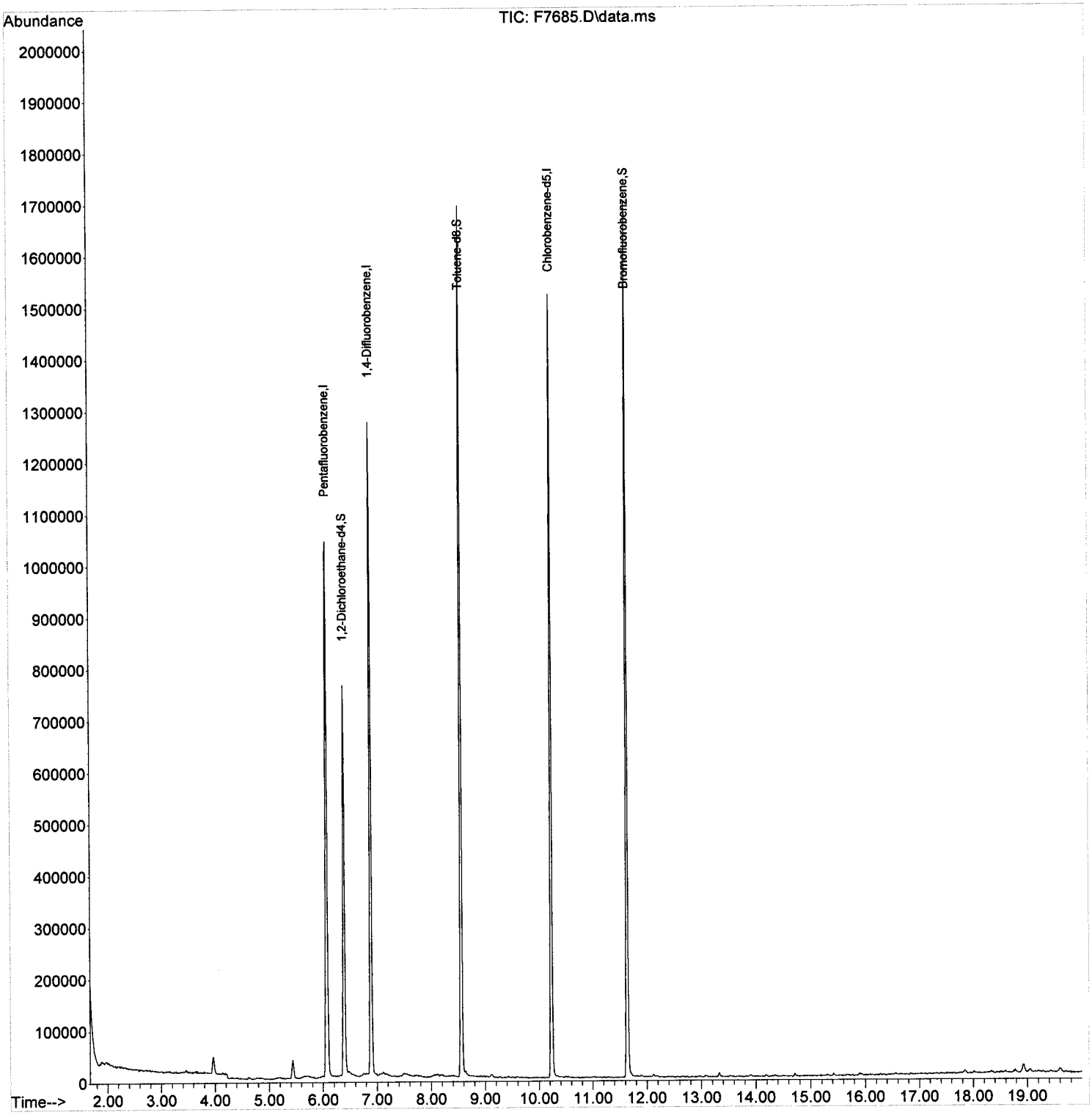
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7685.D
Acq On : 19 Sep 2013 16:42
Operator : XING
Sample : AOC-4/7.5-8,09135-005,S,3.8g,9.40
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 20 09:05:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7685.D
Acq On : 19 Sep 2013 16:42
Operator : XING
Sample : AOC-4/7.5-8,09135-005,S,3.8g,9.40
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7685.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.965	222	227	237	rVB	33246	85075	2.74%	0.559%
2	5.437	367	372	382	rBV	36042	91114	2.94%	0.599%
3	6.076	429	435	448	rVV	1038138	2221819	71.62%	14.603%
4	6.391	456	466	473	rBV	756985	1566923	50.51%	10.298%
5	6.888	509	515	527	rVB	1265580	2370098	76.40%	15.577%
6	8.563	672	680	693	rBV	1686862	3102375	100.00%	20.390%
7	10.228	838	844	853	rBV	1517614	2877624	92.76%	18.913%
8	11.639	974	983	998	rBV	1697014	2851872	91.93%	18.744%
9	18.938	1695	1702	1707	rVB5	15608	48283	1.56%	0.317%

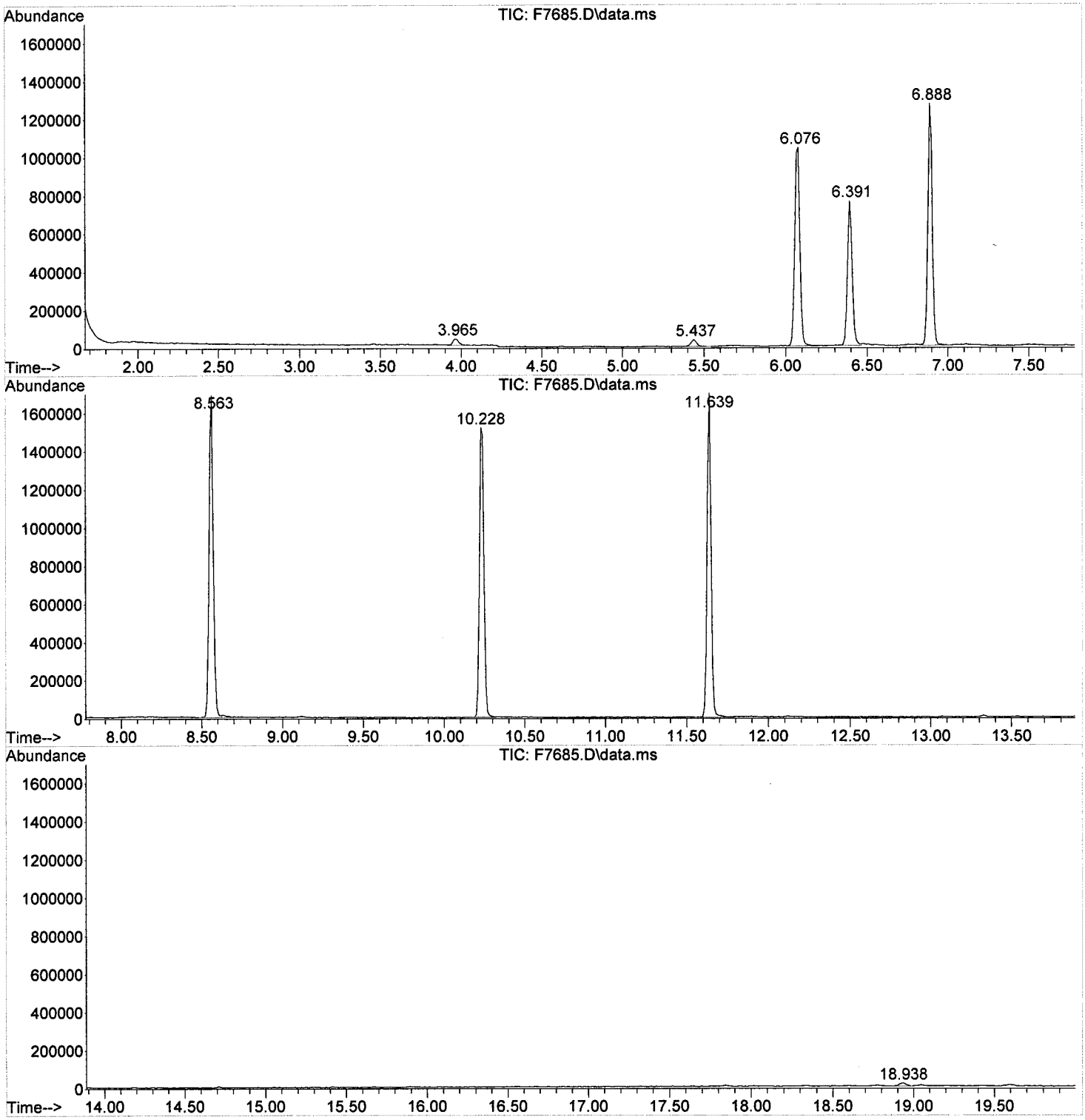
Sum of corrected areas: 15215183

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7685.D
Acq On : 19 Sep 2013 16:42
Operator : XING
Sample : AOC-4/7.5-8,09135-005,S,3.8g,9.40
Misc : EWMA/50_DIVISION_A,09/16/13,09/17/13,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130918
Client ID: BLKS130918
Date Received:
Date Analyzed: 09/18/2013
Data file: L9351.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.032
Chloromethane	ND		0.050	0.020
Vinyl chloride	ND		0.050	0.026
Bromomethane	ND		0.050	0.022
Chloroethane	ND		0.050	0.023
Trichlorofluoromethane	ND		0.050	0.028
1,1-Dichloroethene	ND		0.050	0.020
Acetone	ND		0.100	0.027
Carbon disulfide	ND		0.050	0.023
Methylene chloride	ND		0.100	0.099
trans-1,2-Dichloroethene	ND		0.050	0.019
Methyl tert-butyl ether (MTBE)	ND		0.050	0.036
1,1-Dichloroethane	ND		0.050	0.014
cis-1,2-Dichloroethene	ND		0.050	0.014
2-Butanone (MEK)	ND		0.050	0.028
Bromochloromethane	ND		0.050	0.014
Chloroform	ND		0.050	0.019
1,1,1-Trichloroethane	ND		0.050	0.016
Carbon tetrachloride	ND		0.050	0.018
1,2-Dichloroethane (EDC)	ND		0.050	0.019
Benzene	ND		0.050	0.013
Trichloroethene	ND		0.050	0.011
1,2-Dichloropropane	ND		0.050	0.012
1,4-Dioxane	ND		10.0	0.950
Bromodichloromethane	ND		0.050	0.020
cis-1,3-Dichloropropene	ND		0.050	0.013
4-Methyl-2-pentanone (MIBK)	ND		0.050	0.015

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130918
Client ID: BLKS130918
Date Received:
Date Analyzed: 09/18/2013
Data file: L9351.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.050	0.014
trans-1,3-Dichloropropene	ND		0.050	0.013
1,1,2-Trichloroethane	ND		0.050	0.022
Tetrachloroethene	ND		0.050	0.012
2-Hexanone	ND		0.050	0.013
Dibromochloromethane	ND		0.050	0.012
1,2-Dibromoethane (EDB)	ND		0.050	0.016
Chlorobenzene	ND		0.050	0.014
Ethylbenzene	ND		0.050	0.018
Total Xylenes	ND		0.100	0.033
Styrene	ND		0.050	0.020
Bromoform	ND		0.100	0.012
Isopropylbenzene	ND		0.050	0.016
1,1,2,2-Tetrachloroethane	ND		0.050	0.013
1,3-Dichlorobenzene	ND		0.050	0.014
1,4-Dichlorobenzene	ND		0.050	0.015
1,2-Dichlorobenzene	ND		0.050	0.013
1,2-Dibromo-3-chloropropane	ND		0.100	0.031
1,2,4-Trichlorobenzene	ND		0.050	0.020
1,2,3-Trichlorobenzene	ND		0.050	0.022
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.025
Methyl acetate	ND		0.050	0.030
Cyclohexane	ND		0.100	0.019
Methylcyclohexane	ND		0.050	0.018
1,3-Dichloropropene (cis- and trans-)	ND		0.050	0.013

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130918
Client ID: BLKS130918
Date Received:
Date Analyzed: 09/18/2013
Data file: L9351.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9351.D
Acq On : 18 Sep 2013 11:22
Operator : MEI
Sample : BLKS130918,BLKS130918,S,0.1g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 19 14:11:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 17 10:42:49 2013
Response via : Initial Calibration

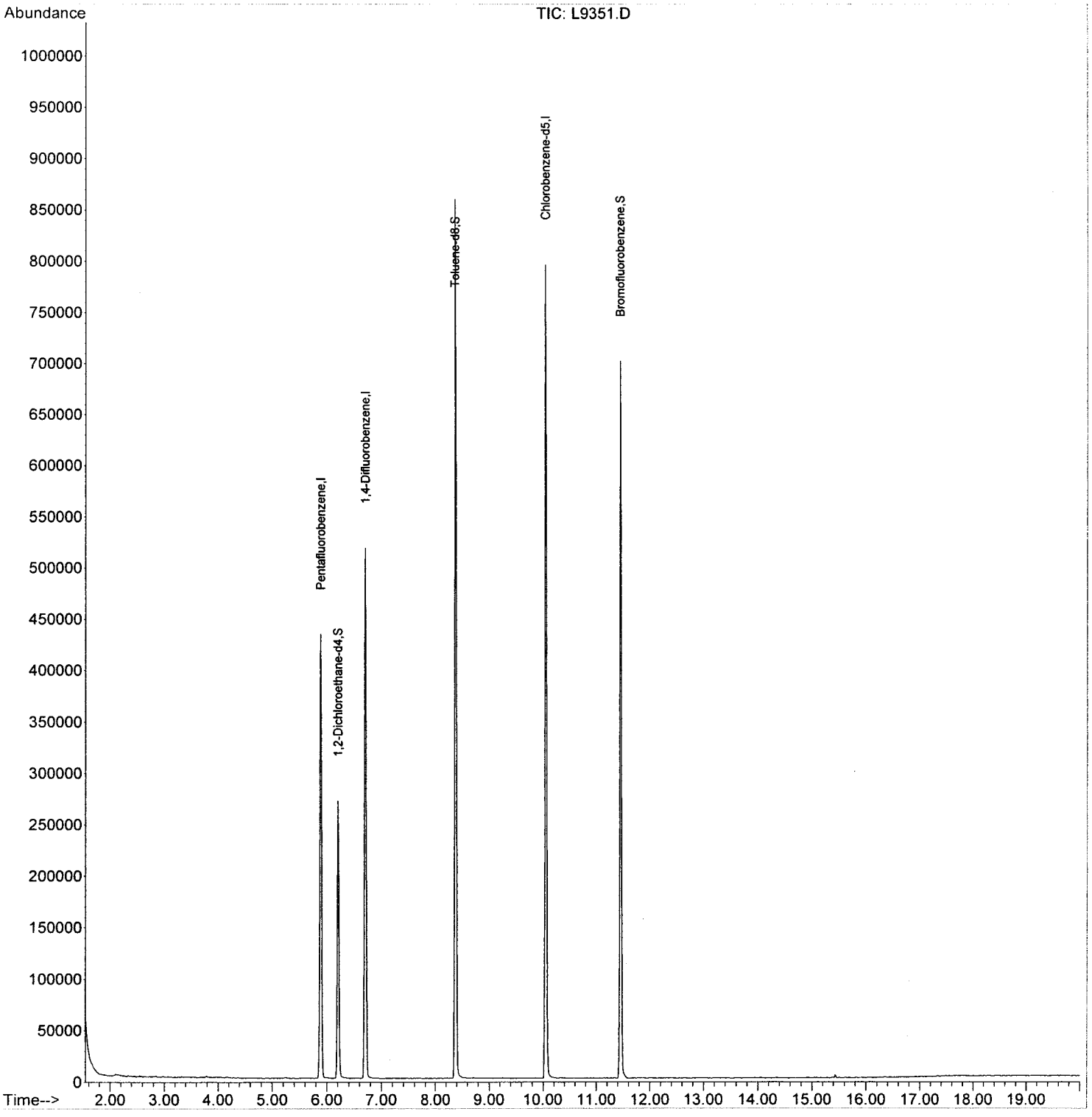
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.89	168	316284	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.71	114	447712	50.00	UG	0.00
50) Chlorobenzene-d5	10.05	117	477716	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.20	65	196112	56.42	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 112.84%			
41) Toluene-d8	8.38	98	581570	51.99	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 103.98%			
59) Bromofluorobenzene	11.45	95	251609	48.05	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 96.10%			

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9351.D
Acq On : 18 Sep 2013 11:22
Operator : MEI
Sample : BLKS130918,BLKS130918,S,0.1g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 19 14:11:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 17 10:42:49 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9351.D
Acq On : 18 Sep 2013 11:22
Operator : MEI
Sample : BLKS130918,BLKS130918,S,0.1g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM091213.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.890	424	430	438	rBV	431705	902260	55.87%	13.200%
2	6.204	452	461	472	rBV	269557	550025	34.06%	8.047%
3	6.712	503	511	526	rBV	515844	1035178	64.10%	15.145%
4	8.377	669	675	691	rBV	856913	1614825	100.00%	23.625%
5	10.052	831	840	862	rVB	793651	1455574	90.14%	21.295%
6	11.453	971	978	992	rVB	698948	1277305	79.10%	18.687%

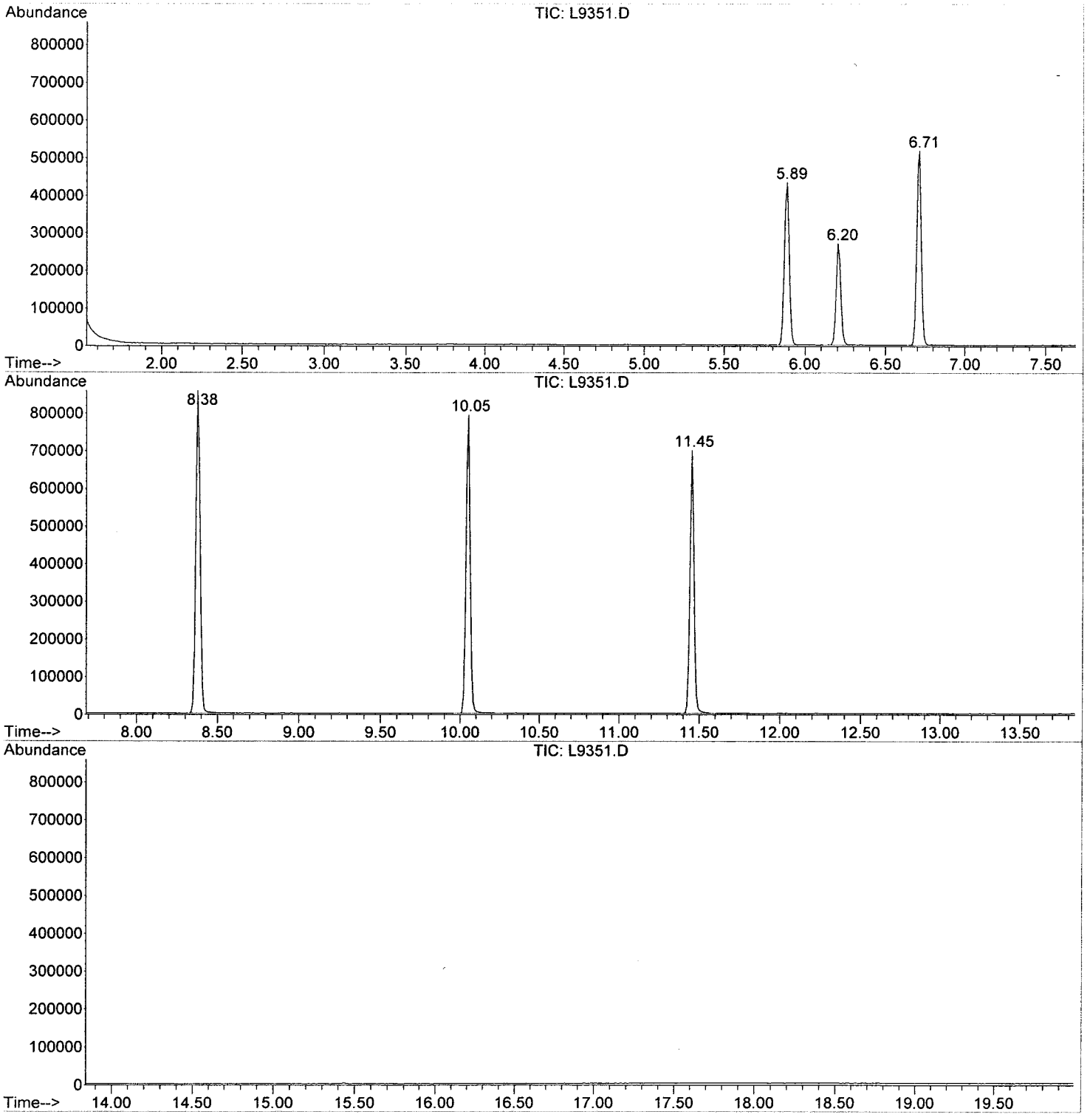
Sum of corrected areas: 6835167

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : L9351.D
Acq On : 18 Sep 2013 11:22
Operator : MEI
Sample : BLKS130918,BLKS130918,S,0.1g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM091213.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130919-01
Client ID: BLKS130919-01
Date Received:
Date Analyzed: 09/19/2013
Data file: F7677.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.00056
Chloromethane	ND		0.001	0.00029
Vinyl chloride	ND		0.001	0.00039
Bromomethane	ND		0.001	0.00048
Chloroethane	ND		0.001	0.00037
Trichlorofluoromethane	ND		0.001	0.0003
1,1-Dichloroethene	ND		0.001	0.00041
Acetone	ND		0.005	0.00055
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00198
trans-1,2-Dichloroethene	ND		0.001	0.00034
Methyl tert-butyl ether (MTBE)	ND		0.001	0.00025
1,1-Dichloroethane	ND		0.001	0.0003
cis-1,2-Dichloroethene	ND		0.001	0.00028
2-Butanone (MEK)	ND		0.002	0.00029
Bromochloromethane	ND		0.001	0.00025
Chloroform	ND		0.001	0.00027
1,1,1-Trichloroethane	ND		0.001	0.00026
Carbon tetrachloride	ND		0.001	0.00025
1,2-Dichloroethane (EDC)	ND		0.001	0.00022
Benzene	ND		0.001	0.00027
Trichloroethene	ND		0.001	0.00034
1,2-Dichloropropane	ND		0.001	0.00026
1,4-Dioxane	ND		0.200	0.011
Bromodichloromethane	ND		0.001	0.00021
cis-1,3-Dichloropropene	ND		0.001	0.00021
4-Methyl-2-pentanone (MIBK)	ND		0.001	0.00021

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130919-01
Client ID: BLKS130919-01
Date Received:
Date Analyzed: 09/19/2013
Data file: F7677.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.00025
trans-1,3-Dichloropropene	ND		0.001	0.00022
1,1,2-Trichloroethane	ND		0.001	0.00021
Tetrachloroethene	ND		0.001	0.00025
2-Hexanone	ND		0.001	0.00027
Dibromochloromethane	ND		0.001	0.00021
1,2-Dibromoethane (EDB)	ND		0.001	0.0002
Chlorobenzene	ND		0.001	0.00028
Ethylbenzene	ND		0.001	0.00028
Total Xylenes	ND		0.002	0.0008
Styrene	ND		0.001	0.00022
Bromoform	ND		0.001	0.00024
Isopropylbenzene	ND		0.001	0.00029
1,1,2,2-Tetrachloroethane	ND		0.001	0.00023
1,3-Dichlorobenzene	ND		0.001	0.00024
1,4-Dichlorobenzene	ND		0.001	0.0002
1,2-Dichlorobenzene	ND		0.001	0.00028
1,2-Dibromo-3-chloropropane	ND		0.001	0.0002
1,2,4-Trichlorobenzene	ND		0.001	0.00026
1,2,3-Trichlorobenzene	ND		0.001	0.00032
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.00037
Methyl acetate	ND		0.001	0.00022
Cyclohexane	ND		0.005	0.00039
Methylcyclohexane	ND		0.005	0.00036
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.00022

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130919-01
Client ID: BLKS130919-01
Date Received:
Date Analyzed: 09/19/2013
Date File: F7677.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7677.D
Acq On : 19 Sep 2013 13:09
Operator : XING
Sample : BLKS130919-01,BLKS130919-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 19 14:13:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	529874	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	666551	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	623987	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	649194	47.64	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 95.28%			
41) Toluene-d8	8.563	98	944274	44.82	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 89.64%			
59) Bromofluorobenzene	11.639	95	493967	42.58	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 85.16%			

Target Compounds	Qvalue

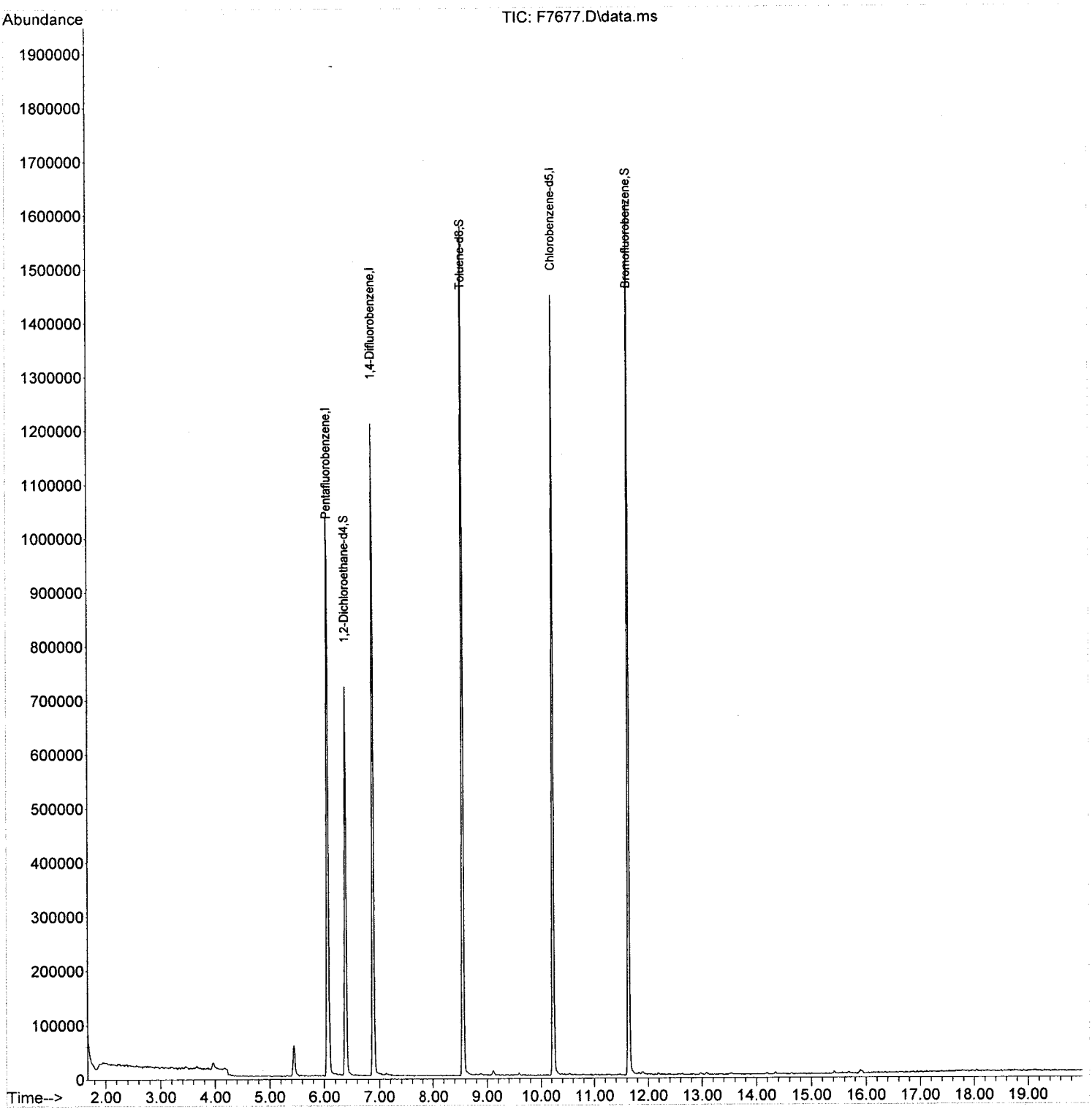
(#) = qualifier out of range (m) = manual integration (+) = signals summed

E13-09135 0129

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7677.D
Acq On : 19 Sep 2013 13:09
Operator : XING
Sample : BLKS130919-01,BLKS130919-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 19 14:13:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7677.D
Acq On : 19 Sep 2013 13:09
Operator : XING
Sample : BLKS130919-01,BLKS130919-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7677.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.893	18	23	25	rBV4	10131	31442	1.07%	0.217%
2	3.964	223	227	237	rVB2	11944	38491	1.30%	0.265%
3	5.447	367	373	382	rBV	56571	156105	5.29%	1.076%
4	6.066	427	434	445	rBV	1032584	2162951	73.29%	14.908%
5	6.391	459	466	480	rBV	718087	1445435	48.98%	9.962%
6	6.888	508	515	534	rBV	1206903	2259121	76.55%	15.571%
7	8.563	674	680	699	rBV	1573597	2951217	100.00%	20.341%
8	10.228	838	844	857	rBV	1444119	2744974	93.01%	18.919%
9	11.639	976	983	998	rBV	1618463	2719140	92.14%	18.741%

Sum of corrected areas: 14508876

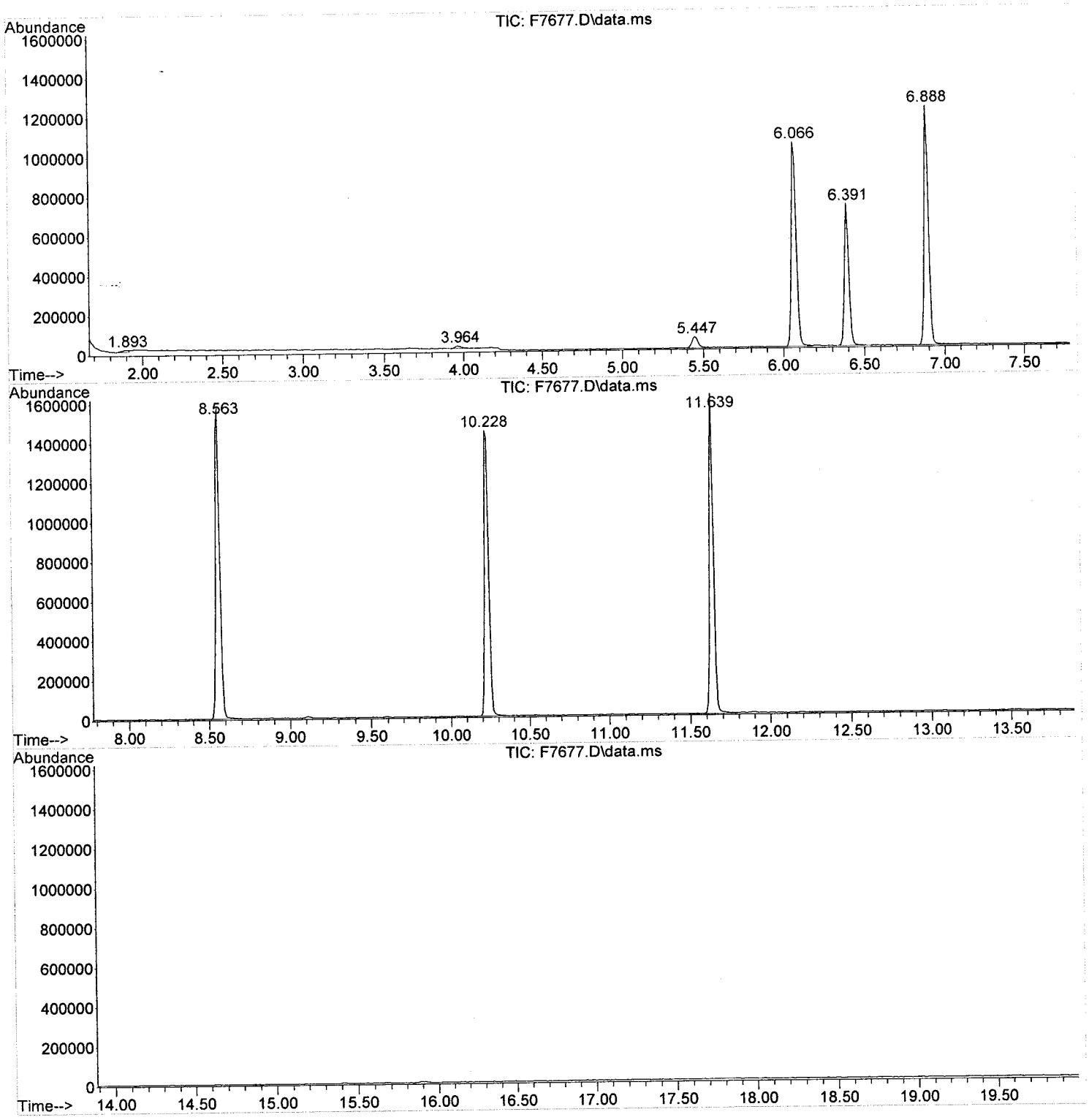
E13-09135 0131

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\09-19-13\
Data File : F7677.D
Acq On : 19 Sep 2013 13:09
Operator : XING
Sample : BLKS130919-01,BLKS130919-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/18/2013

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
BLKS130918-02	SOIL	C0060.D	25	54	60	73	74	117
LCSS130918-02	SOIL	C0061.D	65	73	83	84	84	119
E13-09155-001MS	SOIL	C0062.D	44	54	76	78	68	90
E13-09155-001MSD	SOIL	C0063.D	42	54	70	74	66	84
E13-09155-001	SOIL	C0064.D	N/A	N/A	30	36	N/A	40
E13-09155-002	SOIL	C0065.D	N/A	N/A	69	68	N/A	72
E13-09155-003	SOIL	C0066.D	N/A	N/A	64	84	N/A	89
E13-09155-004	SOIL	C0067.D	N/A	N/A	75	88	N/A	84
E13-09155-005	SOIL	C0068.D	N/A	N/A	35	42	N/A	45
E13-09155-006	SOIL	C0069.D	N/A	N/A	39	42	N/A	45
E13-09155-007	SOIL	C0070.D	N/A	N/A	62	67	N/A	72
E13-09155-008	SOIL	C0071.D	N/A	N/A	76	86	N/A	84
E13-09155-010	SOIL	C0073.D	N/A	N/A	35	42	N/A	42
E13-09155-011	SOIL	C0074.D	N/A	N/A	63	81	N/A	84
E13-09155-012	SOIL	C0075.D	N/A	N/A	58	62	N/A	99
E13-09155-013	SOIL	C0076.D	N/A	N/A	63	75	N/A	78
E13-09155-014	SOIL	C0077.D	N/A	N/A	73	76	N/A	92
E13-09161-001	SOIL	C0079.D	N/A	N/A	59	78	N/A	73
E13-09162-001	SOIL	C0080.D	N/A	N/A	62	83	N/A	93
E13-09135-003	SOIL	C0081.D	N/A	N/A	74	87	N/A	97
E13-09135-004	SOIL	C0082.D	N/A	N/A	61	77	N/A	85
E13-09135-005	SOIL	C0083.D	N/A	N/A	64	65	N/A	98

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130918-02
Date Received: NA
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0061.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	50.0	32.4	65		40 - 140
Pyridine	50.0	27.4	55		20 - 120
Benzaldehyde	50.0	5.8	12		10 - 110
Phenol	50.0	40.2	80		30 - 140
Aniline	50.0	36.8	74		40 - 140
Bis(2-chloroethyl) ether	50.0	39.1	78		40 - 140
2-Chlorophenol	50.0	37.7	75		30 - 140
1,3-Dichlorobenzene	50.0	36.1	72		40 - 140
1,4-Dichlorobenzene	50.0	38.9	78		40 - 140
Benzyl alcohol	50.0	34.1	68		40 - 140
1,2-Dichlorobenzene	50.0	37.4	75		40 - 140
2-Methylphenol	50.0	42.9	86		30 - 140
Bis(2-chloroisopropyl) ether	50.0	41.6	83		40 - 140
4-Methylphenol	50.0	39.2	78		30 - 140
N-Nitrosodi-n-propylamine	50.0	39.7	79		40 - 140
Acetophenone	50.0	40.5	81		40 - 140
3-Methylphenol	50.0	39.2	78		30 - 140
Hexachloroethane	50.0	36.2	72		40 - 140
Nitrobenzene	50.0	42.0	84		40 - 140
Isophorone	50.0	37.1	74		40 - 140
2-Nitrophenol	50.0	41.3	83		30 - 140
2,4-Dimethylphenol	50.0	41.7	83		30 - 140
Bis(2-chloroethoxy) methane	50.0	42.1	84		40 - 140
Benzoic acid	50.0	41.8	84		30 - 140
2,4-Dimethylaniline	50.0	35.3	71		40 - 140
2,4-Dichlorophenol	50.0	41.8	84		30 - 140
1,2,4-Trichlorobenzene	50.0	39.3	79		40 - 140
Naphthalene	50.0	37.9	76		40 - 140
4-Chloroaniline	50.0	38.2	76		40 - 140
Hexachlorobutadiene	50.0	39.6	79		40 - 140
Caprolactam	50.0	46.1	92		40 - 140
4-Chloro-3-methylphenol	50.0	41.5	83		30 - 140
2-Methylnaphthalene	50.0	39.7	79		40 - 140
Hexachlorocyclopentadiene	50.0	25.5	51		5 - 105
2,4,6-Trichlorophenol	50.0	42.9	86		30 - 140
2,4,5-Trichlorophenol	50.0	39.0	78		30 - 140
1,1'-Biphenyl	50.0	44.1	88		40 - 140
2-Chloronaphthalene	50.0	42.0	84		40 - 140
2-Nitroaniline	50.0	46.1	92		40 - 140
Dimethyl phthalate	50.0	45.1	90		40 - 140
2,6-Dinitrotoluene	50.0	43.3	87		40 - 140
Acenaphthylene	50.0	41.1	82		40 - 140
3-Nitroaniline	50.0	40.5	81		40 - 140
Acenaphthene	50.0	41.7	83		40 - 140
2,4-Dinitrophenol	50.0	48.5	97		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130918-02
Date Received: NA
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0061.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	50.0	42.0	84		30 - 140
2,4-Dinitrotoluene	50.0	47.7	95		40 - 140
Dibenzofuran	50.0	41.8	84		40 - 140
Diethyl phthalate	50.0	45.2	90		40 - 140
Fluorene	50.0	45.2	90		40 - 140
4-Chlorophenyl phenyl ether	50.0	46.1	92		40 - 140
4-Nitroaniline	50.0	42.2	84		40 - 140
1,2,4,5-Tetrachlorobenzene	50.0	41.2	82		40 - 140
2,3,4,6-Tetrachlorophenol	50.0	44.4	89		40 - 140
4,6-Dinitro-2-methylphenol	50.0	48.3	97		10 - 110
N-Nitrosodiphenylamine	50.0	48.9	98		40 - 140
1,2-Diphenylhydrazine	50.0	38.1	76		40 - 140
4-Bromophenyl phenyl ether	50.0	46.5	93		40 - 140
Hexachlorobenzene	50.0	47.4	95		40 - 140
Atrazine	50.0	34.0	68		20 - 120
Pentachlorophenol	50.0	36.2	72		30 - 140
Phenanthrene	50.0	45.9	92		40 - 140
Anthracene	50.0	45.7	91		40 - 140
Carbazole	50.0	42.8	86		40 - 140
Di-n-butyl phthalate	50.0	46.2	92		40 - 140
Fluoranthene	50.0	41.4	83		40 - 140
Benzidine	50.0	3.8	8		5 - 105
Pyrene	50.0	59.4	119		40 - 140
3,3'-Dimethylbenzidine	50.0	9.9	20		5 - 105
Butyl benzyl phthalate	50.0	60.3	121		40 - 140
3,3'-Dichlorobenzidine	50.0	57.3	115		40 - 140
Benzo[a]anthracene	50.0	56.3	113		40 - 140
Chrysene	50.0	38.5	77		40 - 140
Bis(2-ethylhexyl) phthalate	50.0	62.5	125		40 - 140
Di-n-octyl phthalate	50.0	69.9	140		40 - 140
Benzo[b]fluoranthene	50.0	57.5	115		40 - 140
Benzo[k]fluoranthene	50.0	69.6	139		40 - 140
Benzo[a]pyrene	50.0	63.7	127		40 - 140
Indeno[1,2,3-cd]pyrene	50.0	65.0	130		40 - 140
Dibenz[a,h]anthracene	50.0	63.3	127		40 - 140
Benzo[g,h,i]perylene	50.0	63.3	127		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

E13-09135 0137

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09155-001
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
MS Data file: C0062.D
MSD Data file: C0063.D

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 12.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	25.0	0.00	11.90	48		12.20	49		2		40-140/30
Pyridine	25.0	0.00	9.00	36		9.20	37		2		20-120/30
Benzaldehyde	25.0	0.00	4.20	17		4.60	18		9		10-110/30
Phenol	25.0	0.00	17.80	71		16.80	67		6		30-140/30
Aniline	25.0	0.00	11.50	46		11.30	45		2		40-140/30
Bis(2-chloroethyl) ether	25.0	0.00	16.60	66		15.20	61		9		40-140/30
2-Chlorophenol	25.0	0.00	15.30	61		14.50	58		5		30-140/30
1,3-Dichlorobenzene	25.0	0.00	13.90	56		13.00	52		7		40-140/30
1,4-Dichlorobenzene	25.0	0.00	15.30	61		14.40	58		6		40-140/30
Benzyl alcohol	25.0	0.00	13.40	54		12.70	51		5		40-140/30
1,2-Dichlorobenzene	25.0	0.00	15.10	60		13.90	56		8		40-140/30
2-Methylphenol	25.0	0.00	18.50	74		17.90	72		3		30-140/30
Bis(2-chloroisopropyl) ether	25.0	0.00	18.70	75		16.90	68		10		40-140/30
4-Methylphenol	25.0	0.00	15.70	63		15.30	61		3		30-140/30
N-Nitrosodi-n-propylamine	25.0	0.00	17.50	70		16.60	66		5		40-140/30
Acetophenone	25.0	0.00	18.10	72		17.50	70		3		40-140/30
3-Methylphenol	25.0	0.00	15.70	63		15.30	61		3		30-140/30
Hexachloroethane	25.0	0.00	14.00	56		13.10	52		7		40-140/30
Nitrobenzene	25.0	0.00	18.80	75		18.00	72		4		40-140/30
Isophorone	25.0	0.00	17.50	70		16.70	67		5		40-140/30
2-Nitrophenol	25.0	0.00	18.90	76		17.40	70		8		30-140/30
2,4-Dimethylphenol	25.0	0.00	17.10	68		15.90	64		7		30-140/30
Bis(2-chloroethoxy) methane	25.0	0.00	19.30	77		18.40	74		5		40-140/30
Benzoic acid	25.0	0.00	11.70	47		13.00	52		11		30-140/30
2,4-Dimethylaniline	25.0	0.00	10.00	40		9.90	40		1		40-140/30
2,4-Dichlorophenol	25.0	0.00	18.60	74		17.60	70		6		30-140/30
1,2,4-Trichlorobenzene	25.0	0.00	17.60	70		16.90	68		4		40-140/30
Naphthalene	25.0	0.00	17.70	71		17.00	68		4		40-140/30
4-Chloroaniline	25.0	0.00	13.10	52		11.70	47		11		40-140/30
Hexachlorobutadiene	25.0	0.00	17.80	71		16.50	66		8		40-140/30
Caprolactam	25.0	0.00	19.40	78		20.80	83		7		40-140/30
4-Chloro-3-methylphenol	25.0	0.00	17.10	68		17.20	69		1		30-140/30
2-Methylnaphthalene	25.0	0.00	17.30	69		16.60	66		4		40-140/30
Hexachlorocyclopentadiene	25.0	0.00	4.50	18		3.80	15		17		5-105/30
2,4,6-Trichlorophenol	25.0	0.00	19.80	79		19.50	78		2		30-140/30
2,4,5-Trichlorophenol	25.0	0.00	18.00	72		17.70	71		2		30-140/30
1,1'-Biphenyl	25.0	0.00	21.50	86		21.00	84		2		40-140/30
2-Chloronaphthalene	25.0	0.00	20.10	80		19.10	76		5		40-140/30
2-Nitroaniline	25.0	0.00	21.50	86		20.50	82		5		40-140/30
Dimethyl phthalate	25.0	0.00	20.70	83		20.90	84		1		40-140/30
2,6-Dinitrotoluene	25.0	0.00	19.20	77		18.20	73		5		40-140/30
Acenaphthylene	25.0	0.00	18.80	75		17.60	70		7		40-140/30
3-Nitroaniline	25.0	0.00	14.70	59		13.30	53		10		40-140/30
Acenaphthene	25.0	0.00	19.70	79		18.70	75		5		40-140/30
2,4-Dinitrophenol	25.0	0.00	5.60	22		4.90	20		13		5-105/30

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09155-001
Date Received: 09/17/2013
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
MS Data file: C0062.D
MSD Data file: C0063.D

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 12.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	25.0	0.00	16.40	66		16.50	66		1		30-140/30
2,4-Dinitrotoluene	25.0	0.00	19.40	78		17.80	71		9		40-140/30
Dibenzofuran	25.0	0.00	18.90	76		18.00	72		5		40-140/30
Diethyl phthalate	25.0	0.00	20.50	82		19.90	80		3		40-140/30
Fluorene	25.0	0.00	19.00	76		18.20	73		4		40-140/30
4-Chlorophenyl phenyl ether	25.0	0.00	20.50	82		18.80	75		9		40-140/30
4-Nitroaniline	25.0	0.00	11.20	45		11.40	46		2		40-140/30
1,2,4,5-Tetrachlorobenzene	25.0	0.00	19.80	79		18.70	75		6		40-140/30
2,3,4,6-Tetrachlorophenol	25.0	0.00	17.40	70		16.70	67		4		40-140/30
4,6-Dinitro-2-methylphenol	25.0	0.00	7.90	32		7.00	28		12		10-110/30
N-Nitrosodiphenylamine	25.0	0.00	24.60	98		23.00	92		7		40-140/30
1,2-Diphenylhydrazine	25.0	0.00	21.60	86		20.60	82		5		40-140/30
4-Bromophenyl phenyl ether	25.0	0.00	23.10	92		21.80	87		6		40-140/30
Hexachlorobenzene	25.0	0.00	21.50	86		20.20	81		6		40-140/30
Atrazine	25.0	0.00	13.50	54		13.00	52		4		20-120/30
Pentachlorophenol	25.0	0.00	15.80	63		15.50	62		2		30-140/30
Phenanthrene	25.0	0.00	21.10	84		20.20	81		4		40-140/30
Anthracene	25.0	0.00	20.80	83		20.20	81		3		40-140/30
Carbazole	25.0	0.00	18.10	72		17.80	71		2		40-140/30
Di-n-butyl phthalate	25.0	0.00	22.60	90		22.10	88		2		40-140/30
Fluoranthene	25.0	0.00	17.50	70		17.60	70		1		40-140/30
Benzidine	25.0	0.00	1.30	5		1.70	7		27		5-105/30
Pyrene	25.0	0.00	25.40	102		24.00	96		6		40-140/30
3,3'-Dimethylbenzidine	25.0	0.00	1.40	6		1.90	8		30		5-105/30
Butyl benzyl phthalate	25.0	0.00	29.80	119		30.20	121		1		40-140/30
3,3'-Dichlorobenzidine	25.0	0.00	17.20	69		14.40	58		18		40-140/30
Benzo[a]anthracene	25.0	0.00	26.60	106		25.30	101		5		40-140/30
Chrysene	25.0	0.00	17.90	72		17.90	72		0		40-140/30
Bis(2-ethylhexyl) phthalate	25.0	7.70	38.80	124		42.50	139		9		40-140/30
Di-n-octyl phthalate	25.0	0.00	30.50	122		31.80	127		4		40-140/30
Benzo[b]fluoranthene	25.0	0.00	27.40	110		29.00	116		6		40-140/30
Benzo[k]fluoranthene	25.0	0.00	33.90	136		31.50	126		7		40-140/30
Benzo[a]pyrene	25.0	0.00	30.30	121		29.90	120		1		40-140/30
Indeno[1,2,3-cd]pyrene	25.0	0.00	30.00	120		26.40	106		13		40-140/30
Dibenz[a,h]anthracene	25.0	0.00	28.70	115		26.20	105		9		40-140/30
Benzo[g,h,i]perylene	25.0	0.00	29.90	120		24.80	99		19		40-140/30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C0060.D Instrument ID: MSDC

Date Extracted: 09/18/13 Matrix: SOIL

Date Analyzed: 09/18/2013 Time Analyzed: 15:35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS130918-02	09/18/2013	15:51
.	E13-09155-001MS	09/18/2013	16:08
.	E13-09155-001MSD	09/18/2013	16:24
TP-101A/	E13-09155-001	09/18/2013	16:40
TP-101A/	E13-09155-002	09/18/2013	16:56
TP-102A/	E13-09155-003	09/18/2013	17:13
TP-102A/	E13-09155-004	09/18/2013	17:29
TP-103/1	E13-09155-005	09/18/2013	17:45
TP-103/4	E13-09155-006	09/18/2013	18:01
TP-104A/	E13-09155-007	09/18/2013	18:18
TP-104A/	E13-09155-008	09/18/2013	18:34
TP-105A/	E13-09155-009	09/18/2013	18:50
TP-105A/	E13-09155-010	09/18/2013	19:06
TP-106/0	E13-09155-011	09/18/2013	19:22
TP-106/2	E13-09155-012	09/18/2013	19:38
TP-107/0	E13-09155-013	09/18/2013	19:54
TP-107/2	E13-09155-014	09/18/2013	20:11
TP-108/2	E13-09155-015	09/18/2013	20:27
BG-1	E13-09161-001	09/18/2013	20:43
BG-1	E13-09162-001	09/18/2013	20:59
AOC-2-3/	E13-09135-003	09/18/2013	21:15
AOC-2-4/	E13-09135-004	09/18/2013	21:31
AOC-4/7.	E13-09135-005	09/18/2013	21:47

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C9788.D

DFTPP Injection Date : 09/10/2013

Inst ID: MSDC

DFTPP Injection Time: 16:04

m/z	Ion Abudance Criteria	%Relative Abundance		
51	30.0 - 60.0% of mass 198	33.4		
68	Less than 2.0% of mass 69	0.0	(0.0	)1
69	Mass 69 relative abundance	38.5		
70	Less than 2.0% of mass 69	0.1	(0.2	)1
127	40.0 - 60.0% of mass 198	53.8		
197	Less than 1.0% of mass 198	0.0		
198	Base peak, 100% relative abundance	100.0		
199	5.0 - 9.0% of mass 198	6.5		
275	10.0 - 30.0% of mass 198	23.2		
365	Greater than 1.0% of mass 198	1.9		
441	Present, but less than mass 443	11.74	(71.8	)3
442	40.0 - 100.0% of mass 198	75.7		
443	17.0 - 23.0% of mass 442	16.4	(21.6	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN022.13	ICC001BNA1	C9789.D	09/10/2013	16:15
ABN024.13	ICC010BNA1	C9790.D	09/10/2013	16:31
ABN025.13	ICC020BNA1	C9791.D	09/10/2013	16:48
ABN026.13	ICC040BNA1	C9792.D	09/10/2013	17:04
ABN027.13	ICC080BNA1	C9793.D	09/10/2013	17:21
ABN028.13	ICC120BNA1	C9794.D	09/10/2013	17:37
ABN036.13	ICV040BNA1	C9795.D	09/10/2013	17:53
ABN035.13	ICC120BNA2	C9796.D	09/10/2013	18:10
ABN034.13	ICC080BNA2	C9797.D	09/10/2013	18:26
ABN033.13	ICC040BNA2	C9798.D	09/10/2013	18:42
ABN032.13	ICC020BNA2	C9799.D	09/10/2013	18:59
ABN031.13	ICC010BNA2	C9800.D	09/10/2013	19:15
ABN029.13	ICC001BNA2	C9801.D	09/10/2013	19:32
ABN037.13	ICV040BNA2	C9802.D	09/10/2013	19:48

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0041.D

DFTPP Injection Date : 09/18/2013

Inst ID: MSDC

DFTPP Injection Time: 10:35

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	32.7			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	38.0			
70	Less than 2.0% of mass 69	0.4	(	1.0	)1
127	40.0 - 60.0% of mass 198	51.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	22.9			
365	Greater than 1.0% of mass 198	1.6			
441	Present, but less than mass 443	10.47	(	71.6	)3
442	40.0 - 100.0% of mass 198	70.3			
443	17.0 - 23.0% of mass 442	14.6	(	20.8	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN036.13	CCV040BNA1	C0042.D	09/18/2013	10:46
ABN037.13	CCV040BNA2	C0043.D	09/18/2013	11:02
.	BLKS130917-03	C0044.D	09/18/2013	11:18
.	LCSS130917-03	C0045.D	09/18/2013	11:34
.	E13-09139-002MS	C0046.D	09/18/2013	11:50
.	E13-09139-002MSD	C0047.D	09/18/2013	12:06
COMP	E13-09139-002	C0048.D	09/18/2013	12:22
13-149-T	E13-09105-001	C0049.D	09/18/2013	12:38
13-149-T	E13-09105-002	C0050.D	09/18/2013	12:54
13-149-T	E13-09105-003	C0051.D	09/18/2013	13:10
09162013	E13-09104-001	C0052.D	09/18/2013	13:26
IPE-5	E13-08945-005	C0053.D	09/18/2013	13:43
BES-AST-	E13-08859-023	C0054.D	09/18/2013	13:59
BES-AST-	E13-08859-025	C0055.D	09/18/2013	14:15
BS-8	E13-08627-001	C0056.D	09/18/2013	14:31
BS-12	E13-08627-005	C0057.D	09/18/2013	14:47
U3NAPL-3	E13-08771-003	C0058.D	09/18/2013	15:03
U3NAPL-5	E13-08771-005	C0059.D	09/18/2013	15:19
.	BLKS130918-02	C0060.D	09/18/2013	15:35
.	LCSS130918-02	C0061.D	09/18/2013	15:51
.	E13-09155-001MS	C0062.D	09/18/2013	16:08
.	E13-09155-001MSD	C0063.D	09/18/2013	16:24
TP-101A/	E13-09155-001	C0064.D	09/18/2013	16:40

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0041.D

DFTPP Injection Date : 09/18/2013

Inst ID: MSDC

DFTPP Injection Time: 10:35

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	32.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	38.0	
70	Less than 2.0% of mass 69	0.4	(1.0)1
127	40.0 - 60.0% of mass 198	51.6	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.8	
275	10.0 - 30.0% of mass 198	22.9	
365	Greater than 1.0% of mass 198	1.6	
441	Present, but less than mass 443	10.47	(71.6)3
442	40.0 - 100.0% of mass 198	70.3	
443	17.0 - 23.0% of mass 442	14.6	(20.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
TP-101A/	E13-09155-002	C0065.D	09/18/2013	16:56
TP-102A/	E13-09155-003	C0066.D	09/18/2013	17:13
TP-102A/	E13-09155-004	C0067.D	09/18/2013	17:29
TP-103/1	E13-09155-005	C0068.D	09/18/2013	17:45
TP-103/4	E13-09155-006	C0069.D	09/18/2013	18:01
TP-104A/	E13-09155-007	C0070.D	09/18/2013	18:18
TP-104A/	E13-09155-008	C0071.D	09/18/2013	18:34
TP-105A/	E13-09155-009	C0072.D	09/18/2013	18:50
TP-105A/	E13-09155-010	C0073.D	09/18/2013	19:06
TP-106/0	E13-09155-011	C0074.D	09/18/2013	19:22
TP-106/2	E13-09155-012	C0075.D	09/18/2013	19:38
TP-107/0	E13-09155-013	C0076.D	09/18/2013	19:54
TP-107/2	E13-09155-014	C0077.D	09/18/2013	20:11
TP-108/2	E13-09155-015	C0078.D	09/18/2013	20:27
BG-1	E13-09161-001	C0079.D	09/18/2013	20:43
BG-1	E13-09162-001	C0080.D	09/18/2013	20:59
AOC-2-3/	E13-09135-003	C0081.D	09/18/2013	21:15
AOC-2-4/	E13-09135-004	C0082.D	09/18/2013	21:31
AOC-4/7.	E13-09135-005	C0083.D	09/18/2013	21:47

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS2213.M
Title : BNA CALIBRATION METHOD
Last Update : Wed Sep 11 11:43:42 2013
Response Via : Initial Calibration

Calibration Files
1 =C9789.D 10 =C9790.D 20 =C9791.D
40 =C9792.D 80 =C9793.D 120 =C9794.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)	T	N-Nitrosodimethyl	0.871	0.866	0.794	0.781	0.783	0.772	0.811	5.55
3)	T	Pyridine	0.899	1.051	1.030	0.950	0.932	0.884	0.957	7.15
4)	S	2-Fluorophenol	1.322	1.439	1.410	1.397	1.407	1.379	1.392	2.85
5)	T	Benzaldehyde	1.082	0.856	1.077	0.861	0.939	1.066	0.980	11.03
6)	S	Phenol-d5	1.532	1.660	1.729	1.689	1.648	1.616	1.646	4.11
7)	MC	Phenol	1.634	1.727	1.626	1.739	1.628	1.710	1.677	3.19
8)	T	Aniline	0.787	0.728	0.692	0.682	0.649	0.625	0.694	8.37
9)	T	Bis(2-chloroethyl	1.033	0.923	0.862	0.899	0.872	0.827	0.903	7.94
10)	M	2-Chlorophenol	1.773	1.523	1.473	1.496	1.505	1.537	1.551	7.14
11)	T	1,3-Dichlorobenze	1.775	1.641	1.550	1.585	1.509	1.707	1.628	6.16
12)	MC	1,4-Dichlorobenze	1.699	1.641	1.574	1.656	1.582	1.429	1.597	5.93
13)	T	Benzyl alcohol	1.090	0.977	0.964	0.989	0.927	0.988	0.989	5.52
14)	T	1,2-Dichlorobenze	1.643	1.527	1.488	1.520	1.433	1.444	1.509	5.04
15)	T	2-Methylphenol	1.052	1.297	1.259	1.250	1.206	1.194	1.210	7.09
16)	T	Bis(2-chloroisopr	1.562	1.660	1.609	1.573	1.473	1.430	1.551	5.52
17)	T	4-Methylphenol	1.537	1.390	1.337	1.431	1.284	1.344	1.387	6.40
18)	MP	N-Nitrosodi-n-pro	1.129	0.980	0.983	0.960	0.923	0.877	0.975	8.73
19)	T	Acetophenone	2.157	1.887	1.809	1.920	1.743	1.818	1.889	7.70
20)	T	3-Methylphenol	1.542	1.396	1.333	1.431	1.285	1.343	1.388	6.56
21)	T	Hexachloroethane	0.586	0.550	0.515	0.523	0.507	0.513	0.533	5.66
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	ISTD							
24)	S	Nitrobenzene-d5	0.301	0.318	0.330	0.323	0.329	0.342	0.324	4.27
25)	T	Nitrobenzene	0.331	0.317	0.299	0.292	0.292	0.288	0.303	5.67
26)	T	Isophorone	0.719	0.650	0.630	0.645	0.589	0.611	0.641	6.97
27)	TC	2-Nitrophenol	0.195	0.182	0.180	0.191	0.173	0.193	0.186	4.65
28)	T	2,4-Dimethylpheno	0.365	0.328	0.323	0.324	0.315	0.321	0.329	5.44
29)	T	Bis(2-chloroethox	0.459	0.382	0.368	0.368	0.362	0.366	0.384	9.73
30)	T	Benzoic acid	0.099	0.094	0.092	0.093	0.115	0.094	0.098	8.92
31)	T	2,4-Dimethylanili	0.477	0.419	0.399	0.426	0.393	0.411	0.421	7.11
32)	TC	2,4-Dichloropheno	0.310	0.266	0.267	0.273	0.261	0.288	0.278	6.68
33)	M	1,2,4-Trichlorobe	0.328	0.299	0.300	0.306	0.283	0.305	0.304	4.78
34)	T	Naphthalene	1.236	1.142	1.079	1.068	1.015	0.994	1.089	8.16
35)	T	4-Chloroaniline	0.629	0.587	0.565	0.575	0.525	0.552	0.572	6.08
36)	T	4-Aminotoluene							0.000	-1.00
37)	TC	Hexachlorobutadie	0.173	0.154	0.149	0.154	0.147	0.155	0.155	6.15
38)	T	Caprolactam	0.110	0.130	0.125	0.121	0.110	0.117	0.119	6.75
39)	T	2-Aminotoluene							0.000	-1.00
40)	MC	4-Chloro-3-methyl	0.347	0.281	0.282	0.278	0.265	0.292	0.291	9.93
41)	T	2-Methylnaphthale	0.813	0.760	0.668	0.686	0.665	0.708	0.717	8.19
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	ISTD							
44)	TP	Hexachlorocyclope	0.136	0.148	0.148	0.157	0.163	0.177	0.155	9.13
45)	TC	2,4,6-Trichloroph	0.372	0.317	0.316	0.326	0.321	0.348	0.333	6.68
46)	T	2,4,5-Trichloroph	0.405	0.342	0.350	0.366	0.354	0.385	0.367	6.56
47)	S	2-Fluorobiphenyl	1.328	1.335	1.376	1.344	1.316	1.414	1.352	2.69
48)	T	1,1'-Biphenyl	1.596	1.358	1.397	1.413	1.314	1.462	1.423	6.91
49)	T	2-Chloronaphthale	1.210	1.035	1.060	1.070	1.008	1.126	1.085	6.70
50)	T	2-Nitroaniline	0.272	0.239	0.238	0.238	0.237	0.253	0.246	5.64
51)	T	Dimethyl phthalat	1.287	1.133	1.141	1.172	1.071	1.213	1.169	6.34

52)	T	2,6-Dinitrotoluen	0.271	0.255	0.252	0.260	0.263	0.284		0.264	4.44
53)	T	Acenaphthylene	1.908	1.673	1.684	1.691	1.571	1.636		1.694	6.73
54)	T	3-Nitroaniline	0.369	0.304	0.288	0.295	0.276	0.326		0.310	10.88
55)	MC	Acenaphthene	1.329	1.125	1.099	1.112	1.094	1.090		1.141	8.13
56)	TP	2,4-Dinitrophenol	0.054	0.051	0.050	0.062	0.068	0.057		0.057	11.95
57)	MP	4-Nitrophenol	0.155	0.160	0.155	0.162	0.159	0.152		0.157	2.38
58)	M	2,4-Dinitrotoluen	0.306	0.285	0.296	0.321	0.328	0.346		0.314	7.08
59)	T	Dibenzofuran	1.703	1.485	1.490	1.506	1.451	1.585		1.537	6.03
60)	T	Diethyl phthalate	1.310	1.090	1.087	1.121	1.038	1.189		1.139	8.54
61)	T	Fluorene	1.418	1.230	1.224	1.232	1.172	1.307		1.264	6.87
62)	T	4-Chlorophenyl ph	0.662	0.556	0.562	0.560	0.560	0.605		0.584	7.23
63)	T	4-Nitroaniline	0.319	0.294	0.304	0.312	0.318	0.323		0.311	3.47
64)		1,2,4,5-Tetrachlo	0.630	0.512	0.515	0.538	0.512	0.564		0.545	8.46
65)	T	2,3,4,6-Tetrachlo	0.256	0.252	0.266	0.260	0.274	0.284		0.265	4.54
66)	I	Phenanthrene-d10	----------ISTD----------								
67)	T	4,6-Dinitro-2-met	0.064	0.060	0.070	0.066	0.074	0.085		0.070	12.79
68)	TC	N-Nitrosodiphenyl	0.605	0.544	0.537	0.564	0.578	0.563		0.565	4.35
69)	T	1,2-Diphenylhydra	0.874	0.804	0.771	0.815	0.792	0.802		0.810	4.30
70)	S	2,4,6-Tribromophe	0.129	0.128	0.126	0.127	0.125	0.132		0.128	2.11
71)	T	4-Bromophenyl phe	0.241	0.211	0.202	0.210	0.211	0.222		0.216	6.32
72)	T	Hexachlorobenzene	0.272	0.228	0.220	0.232	0.234	0.252		0.240	7.99
73)	T	Atrazine	0.216	0.206	0.199	0.206	0.205	0.211		0.207	2.83
74)	MC	Pentachlorophenol	0.113	0.134	0.133	0.140	0.143	0.154		0.136	10.10
75)	T	Phenanthrene	1.287	1.056	1.013	1.040	1.042	1.057		1.083	9.38
76)	T	Anthracene	1.223	1.072	1.020	1.072	1.052	1.097		1.089	6.47
77)	T	Carbazole	1.195	1.042	0.993	1.001	0.982	1.006		1.037	7.75
78)	T	Di-n-butyl phthal	1.328	1.193	1.135	1.191	1.178	1.194		1.203	5.42
79)	TC	Fluoranthene	1.347	1.146	1.091	1.112	1.071	1.097		1.144	8.97
80)	T	Benzidine	0.636	0.662	0.812	0.715	0.831	0.697		0.725	10.98
81)		4-Aminoaniline								0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------								
83)	M	Pyrene	1.487	1.237	1.230	1.292	1.308	1.540		1.349	9.80
84)	S	Terphenyl-d14	0.963	0.997	1.018	1.050	1.076	1.257		1.060	9.83
85)	T	3,3'-Dimethylbenz	1.110	0.829	1.062	0.952	1.083	1.063		1.016	10.47
86)	T	Butyl benzyl phth	0.588	0.517	0.512	0.548	0.545	0.606		0.553	6.78
87)	T	3,3'-Dichlorobenz	0.354	0.386	0.369	0.364	0.328	0.277		0.346	11.22
88)	T	Benzo[a]anthracen	1.262	1.044	1.008	1.048	1.013	1.105		1.080	8.85
89)	T	Chrysene	1.194	1.008	0.985	1.014	0.990	1.029		1.037	7.61
90)	T	Bis(2-ethylhexyl)	0.722	0.673	0.667	0.724	0.735	0.842		0.727	8.64
91)	T	3,3'-Dimethoxyben								0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------								
93)	TC	Di-n-octyl phthal	1.768	1.763	1.825	1.835	1.633	1.990		1.802	6.48
94)	T	Benzo[b]fluoranth	1.639	1.539	1.587	1.597	1.581	1.753		1.616	4.59
95)	T	Benzo[k]fluoranth	1.475	1.546	1.507	1.421	1.483	1.522		1.492	2.90
96)	TC	Benzo[a]pyrene	1.616	1.432	1.371	1.442	1.414	1.489		1.461	5.83
97)	T	Indeno[1,2,3-cd]p	1.695	1.492	1.647	1.816	1.795	1.878		1.720	8.13
98)	T	Dibenz[a,h]anthra	1.346	1.226	1.315	1.488	1.486	1.574		1.406	9.31
99)	T	Benzo[g,h,i]peryl	1.424	1.300	1.374	1.514	1.507	1.578		1.449	7.08

(#) = Out of Range

CS2213.M Wed Sep 11 11:45:13 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-10-13\
Data File : C9795.D
Acq On : 10 Sep 2013 17:53
Operator : EDM
Sample : ABN036.13,ICV040BNA1,S,30.0g,0.0.5
Misc : NA,09/10/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 10 18:10:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Sep 10 18:08:15 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
2	T	N-Nitrosodimethylamine	0.811	0.774	4.6	107	-0.01
3	T	Pyridine	0.957	0.977	-2.1	111	0.00
4	S	2-Fluorophenol	1.392	1.393	-0.1	108	0.00
5	T	Benzaldehyde	0.980	0.866	11.6	113	0.00
6	S	Phenol-d5	1.646	1.634	0.7	105	0.00
7	MC	Phenol	1.677	1.614	3.8	100	0.00
8	T	Aniline	0.694	0.623	10.2	99	0.00
9	T	Bis(2-chloroethyl) ether	0.903	0.817	9.5	98	0.00
10	M	2-Chlorophenol	1.551	1.469	5.3	106	0.00
11	T	1,3-Dichlorobenzene	1.628	1.596	2.0	109	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.582	0.9	103	0.00
13	T	Benzyl alcohol	0.989	0.946	4.3	103	0.00
14	T	1,2-Dichlorobenzene	1.509	1.503	0.4	107	0.00
15	T	2-Methylphenol	1.210	1.199	0.9	104	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.456	6.1	100	0.00
17	T	4-Methylphenol	1.387	1.364	1.7	103	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	0.893	8.4	101	-0.01
19	T	Acetophenone	1.889	1.841	2.5	104	0.00
20	T	3-Methylphenol	1.388	1.362	1.9	103	0.00
21	T	Hexachloroethane	0.533	0.508	4.7	105	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	109	0.00
24	S	Nitrobenzene-d5	0.324	0.302	6.8	102	0.00
25	T	Nitrobenzene	0.303	0.283	6.6	105	0.00
26	T	Isophorone	0.641	0.596	7.0	100	-0.01
27	TC	2-Nitrophenol	0.186	0.185	0.5	105	0.00
28	T	2,4-Dimethylphenol	0.329	0.314	4.6	105	0.00
29	T	Bis(2-chloroethoxy) methane	0.384	0.363	5.5	107	0.00
30	T	Benzoic acid	0.098	0.088	10.2	102	-0.02
31	T	2,4-Dimethylaniline	0.421	0.350	16.9	89	0.00
32	TC	2,4-Dichlorophenol	0.278	0.268	3.6	107	-0.01
33	M	1,2,4-Trichlorobenzene	0.304	0.305	-0.3	108	0.00
34	T	Naphthalene	1.089	1.042	4.3	106	0.00
35	T	4-Chloroaniline	0.572	0.530	7.3	100	0.00
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.161	-3.9	113	0.00
38	T	Caprolactam	0.119	0.117	1.7	104	-0.02
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.273	6.2	107	-0.01
41	T	2-Methylnaphthalene	0.717	0.678	5.4	108	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00
44	TP	Hexachlorocyclopentadiene	0.155	0.139	10.3	96	0.00
45	TC	2,4,6-Trichlorophenol	0.333	0.367	-10.2	122	0.02

46	T	2,4,5-Trichlorophenol	0.367	0.370	-0.8	109	0.00
47	S	2-Fluorobiphenyl	1.352	1.335	1.3	108	0.00
48	T	1,1'-Biphenyl	1.423	1.415	0.6	108	0.00
49	T	2-Chloronaphthalene	1.085	1.069	1.5	108	0.00
50	T	2-Nitroaniline	0.246	0.238	3.3	108	0.00
51	T	Dimethyl phthalate	1.169	1.182	-1.1	109	0.00
52	T	2,6-Dinitrotoluene	0.264	0.280	-6.1	116	0.00
53	T	Acenaphthylene	1.694	1.681	0.8	108	0.00
54	T	3-Nitroaniline	0.310	0.295	4.8	108	-0.01
55	MC	Acenaphthene	1.141	1.110	2.7	108	0.00
56	TP	2,4-Dinitrophenol	0.057	0.061	-7.0	106	0.00
57	MP	4-Nitrophenol	0.157	0.161	-2.5	107	0.00
58	M	2,4-Dinitrotoluene	0.314	0.331	-5.4	112	0.00
59	T	Dibenzofuran	1.537	1.528	0.6	110	0.00
60	T	Diethyl phthalate	1.139	1.127	1.1	109	0.00
61	T	Fluorene	1.264	1.275	-0.9	112	0.00
62	T	4-Chlorophenyl phenyl ether	0.584	0.589	-0.9	114	0.00
63	T	4-Nitroaniline	0.311	0.319	-2.6	111	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.545	0.530	2.8	107	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.282	-6.4	117	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00
67	T	4,6-Dinitro-2-methylphenol	0.070	0.076	-8.6	127	-0.01
68	TC	N-Nitrosodiphenylamine	0.565	0.565	0.0	111	0.00
69	T	1,2-Diphenylhydrazine	0.810	0.775	4.3	106	0.00
70	S	2,4,6-Tribromophenol	0.128	0.130	-1.6	114	0.00
71	T	4-Bromophenyl phenyl ether	0.216	0.215	0.5	114	0.00
72	T	Hexachlorobenzene	0.240	0.237	1.3	114	0.00
73	T	Atrazine	0.207	0.183	11.6	99	-0.01
74	MC	Pentachlorophenol	0.136	0.145	-6.6	116	0.00
75	T	Phenanthrene	1.083	1.057	2.4	113	0.00
76	T	Anthracene	1.089	1.064	2.3	110	0.00
77	T	Carbazole	1.037	1.054	-1.6	117	0.00
78	T	Di-n-butyl phthalate	1.203	1.219	-1.3	114	0.00
79	TC	Fluoranthene	1.144	1.162	-1.6	116	0.00
80	T	Benzidine	0.725	0.625	13.8	108	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	123	0.00
83	M	Pyrene	1.349	1.271	5.8	121	0.00
84	S	Terphenyl-d14	1.060	1.040	1.9	122	0.00
85	T	3,3'-Dimethylbenzidine	1.016	0.818	19.5	121	0.02
86	T	Butyl benzyl phthalate	0.553	0.530	4.2	119	0.01
87	T	3,3'-Dichlorobenzidine	0.346	0.363	-4.9	123	0.00
88	T	Benzo[a]anthracene	1.080	1.088	-0.7	128	0.00
89	T	Chrysene	1.037	1.006	3.0	122	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.726	0.1	124	0.00
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	119	0.00
93	TC	Di-n-octyl phthalate	1.802	1.962	-8.9	128	0.00
94	T	Benzo[b]fluoranthene	1.616	1.595	1.3	119	-0.01
95	T	Benzo[k]fluoranthene	1.492	1.634	-9.5	137	-0.01
96	TC	Benzo[a]pyrene	1.461	1.422	2.7	118	-0.02
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.712	0.5	113	-0.05
98	T	Dibenz[a,h]anthracene	1.406	1.453	-3.3	117	-0.04
99	T	Benzo[g,h,i]perylene	1.449	1.437	0.8	113	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Wed Sep 11 11:40:33 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0042.D
Acq On : 18 Sep 2013 10:46
Operator : EDM
Sample : ABN036.13,CCV040BNA1
Misc : NA,09/18/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 18 11:01:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00
2	T	N-Nitrosodimethylamine	0.811	0.662	18.4	97	-0.01
3	T	Pyridine	0.957	0.800	16.4	97	0.00
4	S	2-Fluorophenol	1.392	1.219	12.4	100	0.00
5	T	Benzaldehyde	0.980	0.869	11.3	107	0.00
6	S	Phenol-d5	1.646	1.618	1.7	110	-0.01
7	MC	Phenol	1.677	1.557	7.2	103	-0.01
8	T	Aniline	0.694	0.652	6.1	110	0.00
9	T	Bis(2-chloroethyl) ether	0.903	0.859	4.9	110	0.00
10	M	2-Chlorophenol	1.551	1.506	2.9	115	0.00
11	T	1,3-Dichlorobenzene	1.628	1.507	7.4	109	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.599	-0.1	111	0.00
13	T	Benzyl alcohol	0.989	0.927	6.3	108	0.00
14	T	1,2-Dichlorobenzene	1.509	1.466	2.8	111	0.00
15	T	2-Methylphenol	1.210	1.339	-10.7	123	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.422	8.3	104	-0.01
17	T	4-Methylphenol	1.387	1.303	6.1	104	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	0.895	8.2	107	-0.01
19	T	Acetophenone	1.889	1.752	7.3	105	-0.01
20	T	3-Methylphenol	1.388	1.312	5.5	105	0.00
21	T	Hexachloroethane	0.533	0.507	4.9	111	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	112	-0.01
24	S	Nitrobenzene-d5	0.324	0.306	5.6	106	-0.01
25	T	Nitrobenzene	0.303	0.293	3.3	112	0.00
26	T	Isophorone	0.641	0.591	7.8	103	-0.02
27	TC	2-Nitrophenol	0.186	0.192	-3.2	113	0.00
28	T	2,4-Dimethylphenol	0.329	0.318	3.3	110	-0.01
29	T	Bis(2-chloroethoxy) methane	0.384	0.363	5.5	110	-0.01
30	T	Benzoic acid	0.098	0.107	-9.2	128	-0.02
31	T	2,4-Dimethylaniline	0.421	0.383	9.0	101	-0.01
32	TC	2,4-Dichlorophenol	0.278	0.267	4.0	110	-0.01
33	M	1,2,4-Trichlorobenzene	0.304	0.312	-2.6	114	0.00
34	T	Naphthalene	1.089	1.053	3.3	110	-0.01
35	T	4-Chloroaniline	0.572	0.554	3.1	108	-0.01
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.160	-3.2	117	-0.01
38	T	Caprolactam	0.119	0.103	13.4	95	-0.03
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.269	7.6	108	-0.02
41	T	2-Methylnaphthalene	0.717	0.685	4.5	112	-0.02
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	110	-0.02
44	TP	Hexachlorocyclopentadiene	0.155	0.135	12.9	95	-0.01
45	TC	2,4,6-Trichlorophenol	0.333	0.327	1.8	110	-0.01

46	T	2,4,5-Trichlorophenol	0.367	0.371	-1.1	111	-0.02
47	S	2-Fluorobiphenyl	1.352	1.349	0.2	110	-0.02
48	T	1,1'-Biphenyl	1.423	1.392	2.2	108	-0.02
49	T	2-Chloronaphthalene	1.085	1.037	4.4	107	-0.02
50	T	2-Nitroaniline	0.246	0.234	4.9	108	-0.02
51	T	Dimethyl phthalate	1.169	1.121	4.1	105	-0.03
52	T	2,6-Dinitrotoluene	0.264	0.264	0.0	111	-0.02
53	T	Acenaphthylene	1.694	1.669	1.5	109	-0.02
54	T	3-Nitroaniline	0.310	0.287	7.4	107	-0.03
55	MC	Acenaphthene	1.141	1.123	1.6	111	-0.02
56	TP	2,4-Dinitrophenol	0.057	0.060	-5.3	107	-0.02
57	MP	4-Nitrophenol	0.157	0.135	14.0	91	-0.02
58	M	2,4-Dinitrotoluene	0.314	0.311	1.0	106	-0.03
59	T	Dibenzofuran	1.537	1.537	0.0	112	-0.03
60	T	Diethyl phthalate	1.139	1.098	3.6	108	-0.03
61	T	Fluorene	1.264	1.222	3.3	109	-0.03
62	T	4-Chlorophenyl phenyl ether	0.584	0.590	-1.0	116	-0.03
63	T	4-Nitroaniline	0.311	0.296	4.8	105	-0.04
64		1,2,4,5-Tetrachlorobenzene	0.545	0.565	-3.7	115	-0.02
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.252	4.9	106	-0.02
66	I	Phenanthrene-d10	1.000	1.000	0.0	110	-0.04
67	T	4,6-Dinitro-2-methylphenol	0.070	0.073	-4.3	121	-0.04
68	TC	N-Nitrosodiphenylamine	0.565	0.566	-0.2	110	-0.03
69	T	1,2-Diphenylhydrazine	0.810	0.769	5.1	104	-0.03
70	S	2,4,6-Tribromophenol	0.128	0.132	-3.1	114	-0.03
71	T	4-Bromophenyl phenyl ether	0.216	0.225	-4.2	118	-0.03
72	T	Hexachlorobenzene	0.240	0.244	-1.7	115	-0.04
73	T	Atrazine	0.207	0.194	6.3	103	-0.04
74	MC	Pentachlorophenol	0.136	0.124	8.8	98	-0.04
75	T	Phenanthrene	1.083	1.033	4.6	109	-0.01
76	T	Anthracene	1.089	1.036	4.9	106	-0.04
77	T	Carbazole	1.037	0.958	7.6	105	-0.04
78	T	Di-n-butyl phthalate	1.203	1.121	6.8	103	-0.05
79	TC	Fluoranthene	1.144	1.040	9.1	103	-0.05
80	T	Benzidine	0.725	0.605	16.6	98	-0.11
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	95	-0.04
83	M	Pyrene	1.349	1.376	-2.0	101	-0.06
84	S	Terphenyl-d14	1.060	1.118	-5.5	101	-0.06
85	T	3,3'-Dimethylbenzidine	1.016	0.816	19.7	104	-0.13
86	T	Butyl benzyl phthalate	0.553	0.524	5.2	91	-0.06
87	T	3,3'-Dichlorobenzidine	0.346	0.375	-8.4	98	-0.04
88	T	Benzo[a]anthracene	1.080	1.059	1.9	96	-0.04
89	T	Chrysene	1.037	1.042	-0.5	98	-0.04
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.692	4.8	91	-0.04
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	93	-0.04
93	TC	Di-n-octyl phthalate	1.802	1.815	-0.7	92	-0.05
94	T	Benzo[b]fluoranthene	1.616	1.481	8.4	86	-0.05
95	T	Benzo[k]fluoranthene	1.492	1.634	-9.5	107	-0.06
96	TC	Benzo[a]pyrene	1.461	1.460	0.1	94	-0.05
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.848	-7.4	94	-0.07
98	T	Dibenz[a,h]anthracene	1.406	1.539	-9.5	96	-0.06
99	T	Benzo[g,h,i]perylene	1.449	1.606	-10.8	98	-0.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Wed Sep 18 11:02:02 2013 RPT1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C9789.D

Date Analyzed: 09/10/2013

Instrument ID: MSDC

Time Analyzed: 16:15

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	179741	2.47	725778	3.01	438920	3.82
	UPPER LIMIT	359482	2.97	1451556	3.51	877840	4.32
	LOWER LIMIT	89871	1.97	362889	2.51	219460	3.32
	LAB SAMPLE ID						
01	ICC010BNA1	161882	2.47	681271	3.01	421822	3.83
02	ICC020BNA1	156644	2.47	653348	3.01	394358	3.83
03	ICC040BNA1	160435	2.47	672033	3.02	403704	3.83
04	ICC080BNA1	158024	2.47	669950	3.02	388351	3.83
05	ICC120BNA1	193539	2.47	819268	3.02	487199	3.86
06	ICV040BNA1	173317	2.47	730510	3.02	436870	3.86
07	ICC120BNA2	260276	2.47	1083469	3.02	682879	3.85
08	ICC080BNA2	188485	2.47	800384	3.02	495291	3.85
09	ICC040BNA2	152311	2.47	622754	3.02	394375	3.86
10	ICC020BNA2	184332	2.47	774768	3.02	477898	3.85
11	ICC010BNA2	152062	2.47	613992	3.01	389563	3.84
12	ICC001BNA2	196074	2.47	845804	3.02	509866	3.85
13	ICV040BNA2	180144	2.47	739863	3.02	465174	3.86
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C9789.D

Date Analyzed: 09/10/2013

Instrument ID: MSDC

Time Analyzed: 16:15

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	699175	4.57	644442	6.34	366137	7.67
	UPPER LIMIT	1398350	5.07	1288884	6.84	732274	8.17
	LOWER LIMIT	349588	4.07	322221	5.84	183069	7.17
	LAB SAMPLE ID						
01	ICC010BNA1	662720	4.58	616112	6.34	343676	7.69
02	ICC020BNA1	642175	4.58	571945	6.35	315367	7.69
03	ICC040BNA1	632590	4.58	540119	6.34	309196	7.68
04	ICC080BNA1	579365	4.58	469906	6.35	301109	7.69
05	ICC120BNA1	764913	4.65	532829	6.44	307472	7.78
06	ICV040BNA1	703761	4.65	666910	6.44	369311	7.77
07	ICC120BNA2	1117545	4.64	1024951	6.42	540415	7.76
08	ICC080BNA2	835315	4.62	781250	6.41	405714	7.74
09	ICC040BNA2	656626	4.66	679644	6.45	389302	7.78
10	ICC020BNA2	784214	4.63	819581	6.42	456449	7.76
11	ICC010BNA2	663751	4.61	675768	6.38	396104	7.71
12	ICC001BNA2	852863	4.63	836205	6.41	469598	7.75
13	ICV040BNA2	779700	4.65	761975	6.44	419081	7.77
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0042.D

Date Analyzed: 09/18/2013

Instrument ID: MSDC

Time Analyzed: 10:46

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	183964	2.47	752778	3.01	444153	3.84
	UPPER LIMIT	367928	2.97	1505556	3.51	888306	4.34
	LOWER LIMIT	91982	1.97	376389	2.51	222077	3.34
	LAB SAMPLE ID						
01	CCV040BNA2	169407	2.47	670942	3.01	425631	3.81
02	BLKS130917-03	163577	2.47	783667	3.01	459856	3.83
03	LCSS130917-03	194730	2.47	822809	3.01	520555	3.83
04	E13-09139-002MS	283599	2.47	1228907	3.01	700348	3.82
05	E13-09139-002MSD	311787	2.47	1333668	3.01	830975	3.83
06	E13-09139-002	255583	2.47	1097269	3.01	676498	3.82
07	E13-09105-001	227305	2.47	933879	3.01	553155	3.82
08	E13-09105-002	262046	2.47	1093843	3.01	681747	3.83
09	E13-09105-003	232714	2.47	1008994	3.01	573494	3.83
10	E13-09104-001	331068	2.47	1342496	3.01	670853	3.82
11	E13-08945-005	196463	2.47	839861	3.02	522369	3.85
12	E13-08859-023	276372	2.47	1122236	3.01	650880	3.84
13	E13-08859-025	254172	2.47	1076005	3.01	627850	3.83
14	E13-08627-001	222738	2.47	944789	3.01	529682	3.83
15	E13-08627-005	241873	2.47	1012871	3.01	560829	3.83
16	E13-08771-003	284900	2.47	1230565	3.01	646788	3.82
17	E13-08771-005	336141	2.47	1285859	3.01	542285	3.82
18	BLKS130918-02	263106	2.47	1034864	3.01	693630	3.82
19	LCSS130918-02	232500	2.47	970995	3.01	554763	3.80
20	E13-09155-001MS	341232	2.47	1306244	3.01	664964	3.81
21	E13-09155-001MSD	254364	2.47	1001237	3.01	521364	3.80
22	E13-09155-001	295133	2.47	1146019	3.01	636209	3.80

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0042.D

Date Analyzed: 09/18/2013

Instrument ID: MSDC

Time Analyzed: 10:46

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	693128	4.61	513213	6.40	286583	7.74
	UPPER LIMIT	1386256	5.11	1026426	6.90	573166	8.24
	LOWER LIMIT	346564	4.11	256607	5.90	143292	7.24
	LAB SAMPLE ID						
01	CCV040BNA2	735441	4.57	654461	6.34	350789	7.68
02	BLKS130917-03	816232	4.59	634571	6.36	324287	7.70
03	LCSS130917-03	799119	4.58	451263	6.34	211180	7.69
04	E13-09139-002MS	1075411	4.57	607981	6.33	301122	7.68
05	E13-09139-002MSD	1264668	4.59	650651	6.36	300707	7.70
06	E13-09139-002	1000815	4.56	567405	6.33	259493	7.67
07	E13-09105-001	856412	4.57	459246	6.33	270688	7.67
08	E13-09105-002	964966	4.58	458586	6.35	274149	7.69
09	E13-09105-003	852312	4.60	451969	6.36	232445	7.71
10	E13-09104-001	844859	4.57	516494	6.34	314258	7.69
11	E13-08945-005	682074	4.63	452643	6.40	275975	7.74
12	E13-08859-023	897012	4.61	463704	6.38	257313	7.73
13	E13-08859-025	912812	4.59	496879	6.37	276936	7.71
14	E13-08627-001	766433	4.60	484903	6.36	278540	7.72
15	E13-08627-005	804871	4.59	524458	6.36	313382	7.71
16	E13-08771-003	839681	4.58	535532	6.35	298826	7.71
17	E13-08771-005	805945	4.57	490858	6.34	293613	7.68
18	BLKS130918-02	1113471	4.57	713518	6.33	329427	7.67
19	LCSS130918-02	858112	4.54	510580	6.29	250542	7.67
20	E13-09155-001MS	840041	4.55	501934	6.30	295107	7.65
21	E13-09155-001MSD	668772	4.54	440411	6.29	254127	7.64
22	E13-09155-001	838106	4.53	557934	6.28	327606	7.64

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0042.D

Date Analyzed: 09/18/2013

Instrument ID: MSDC

Time Analyzed: 10:46

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	183964		2.47		752778		3.01		444153		3.84	
	UPPER LIMIT	367928		2.97		1505556		3.51		888306		4.34	
	LOWER LIMIT	91982		1.97		376389		2.51		222077		3.34	
	LAB SAMPLE ID												
01	E13-09155-002	239247		2.47		905289		3.01		446506		3.8	
02	E13-09155-003	201905		2.47		1168550		3.02		434267		3.81	
03	E13-09155-004	260575		2.47		921782		3.01		394138		3.82	
04	E13-09155-005	243748		2.47		900770		3.01		416795		3.82	
05	E13-09155-006	216880		2.47		841223		3.01		423156		3.82	
06	E13-09155-007	205909		2.47		819846		3.01		372866		3.82	
07	E13-09155-008	242264		2.47		938892		3.01		446889		3.81	
08	E13-09155-009	243355		2.47		832952		3.01		385060		3.82	
09	E13-09155-010	293197		2.47		1073317		3.02		529192		3.84	
10	E13-09155-011	301146		2.47		1070617		3.02		493387		3.84	
11	E13-09155-012	252962		2.47		1091680		3.02		663065		3.87	
12	E13-09155-013	254471		2.47		946040		3.02		467504		3.84	
13	E13-09155-014	293139		2.47		1038988		3.02		555152		3.84	
14	E13-09155-015	224142		2.47		836595		3.01		371789		3.81	
15	E13-09161-001	323834		2.47		1217279		3.02		559662		3.84	
16	E13-09162-001	250103		2.47		923493		3.01		422992		3.8	
17	E13-09135-003	193127		2.47		726880		3.01		346975		3.81	
18	E13-09135-004	217500		2.47		819318		3.01		396928		3.82	
19	E13-09135-005	219005		2.47		910228		3.02		540019		3.86	
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0042.D

Date Analyzed: 09/18/2013

Instrument ID: MSDC

Time Analyzed: 10:46

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	693128	4.61	513213	6.40	286583	7.74
	UPPER LIMIT	1386256	5.11	1026426	6.90	573166	8.24
	LOWER LIMIT	346564	4.11	256607	5.90	143292	7.24
	LAB SAMPLE ID						
01	E13-09155-002	590927	4.55	423542	6.30	233623	7.67
02	E13-09155-003	568018	4.56	461678	6.32	249779	7.7
03	E13-09155-004	487336	4.56	387649	6.32	208600	7.68
04	E13-09155-005	557303	4.56	428758	6.32	187847	7.68
05	E13-09155-006	594689	4.57	465625	6.34	214368	7.7
06	E13-09155-007	553935	4.57	441996	6.33	166404	7.69
07	E13-09155-008	589661	4.56	455243	6.32	186684	7.67
08	E13-09155-009	565699	4.56	467634	6.32	116645*	7.71
09	E13-09155-010	762495	4.61	583086	6.39	303542	7.77
10	E13-09155-011	701615	4.61	559239	6.39	252545	7.79
11	E13-09155-012	1082894	4.66	697968	6.46	306483	7.81
12	E13-09155-013	666562	4.62	508694	6.39	266269	7.77
13	E13-09155-014	708812	4.62	493042	6.41	272127	7.77
14	E13-09155-015	519881	4.54	414649	6.30	104788*	7.66
15	E13-09161-001	752162	4.61	623483	6.38	252811	7.78
16	E13-09162-001	666059	4.54	510303	6.29	151241	7.66
17	E13-09135-003	497786	4.54	395132	6.31	159398	7.66
18	E13-09135-004	643367	4.57	543050	6.35	188530	7.72
19	E13-09135-005	863844	4.65	589653	6.45	273713	7.81
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Sep 19 10:02:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

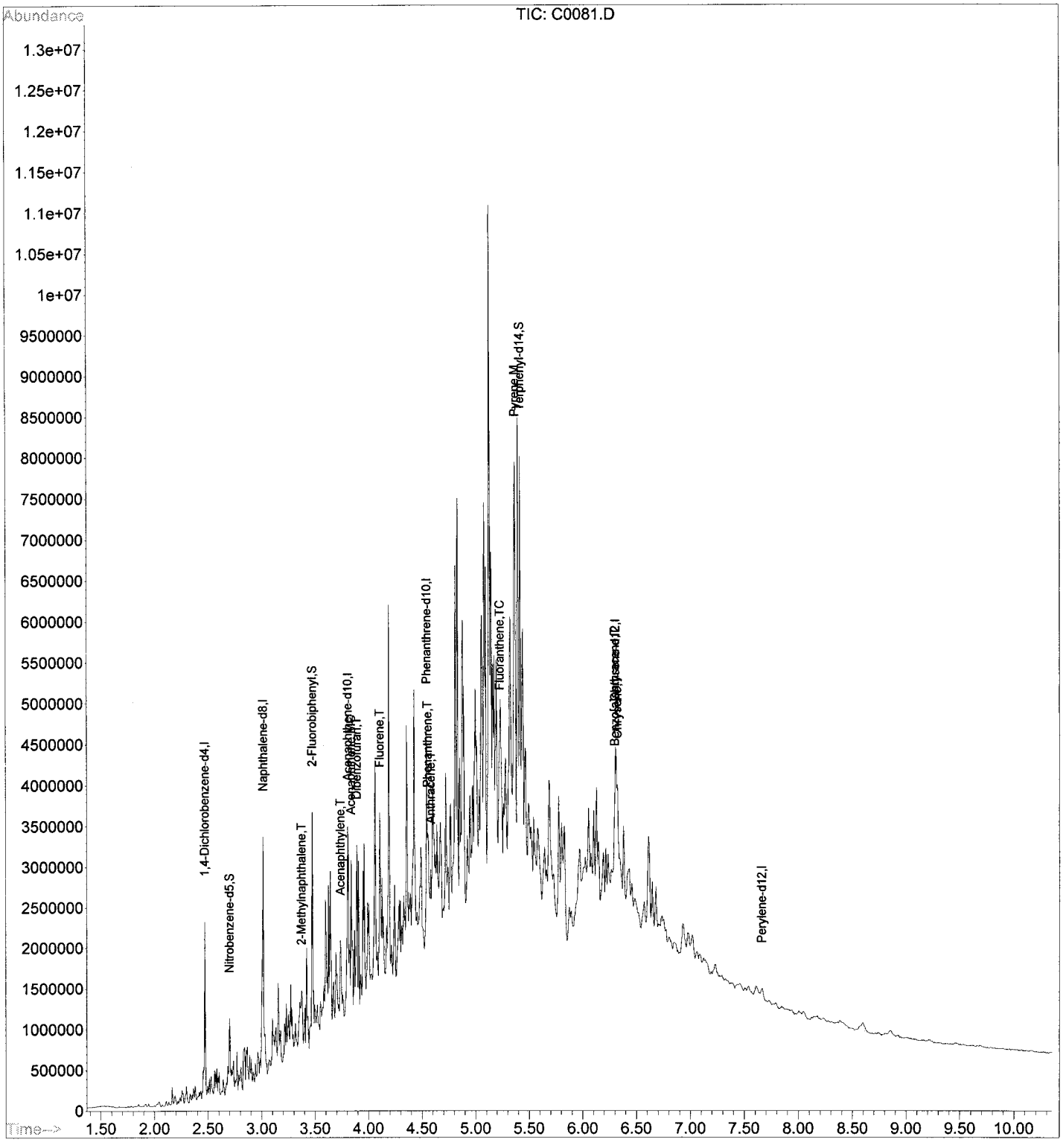
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	193127	40.00	UG		0.00
23) Naphthalene-d8	3.01	136	726880	40.00	UG		-0.01
43) Acenaphthene-d10	3.81	164	346975	40.00	UG		-0.05
66) Phenanthrene-d10	4.54	188	497786m	40.00	UG		-0.11
82) Chrysene-d12	6.31	240	395132m	40.00	UG		-0.13
92) Perylene-d12	7.66	264	159398m	40.00	UG		-0.12
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#				
6) Phenol-d5	0.00	99	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#				
24) Nitrobenzene-d5	2.70	82	217036	36.89	UG		-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 73.78%				
47) 2-Fluorobiphenyl	3.47	172	509724	43.46	UG		-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 86.92%				
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG		
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#				
84) Terphenyl-d14	5.41	244	506491m	48.36	UG		-0.19
Spiked Amount 50.000	Range 15 - 122		Recovery = 96.72%				
Target Compounds							Qvalue
41) 2-Methylnaphthalene	3.37	142	45712	3.51	UG		87
53) Acenaphthylene	3.74	152	11032	0.75	UG	#	1
55) Acenaphthene	3.84	153	43562	4.40	UG	#	35
59) Dibenzofuran	3.90	168	51412	3.86	UG	#	54
61) Fluorene	4.10	166	30280	2.76	UG	#	1
75) Phenanthrene	4.56	178	368644m	27.36	UG		
76) Anthracene	4.58	178	132120m	9.75	UG		
79) Fluoranthene	5.22	202	176864m	12.42	UG		
83) Pyrene	5.36	202	674713m	50.63	UG		
88) Benzo[a]anthracene	6.29	228	267897m	25.11	UG		
89) Chrysene	6.33	228	282244	27.56	UG		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Sep 19 10:02:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



E13-09135 0158

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.298	171	175	179	rBV2	213382	199572	2.73%	0.151%
2	2.453	201	204	205	rBV3	358115	268697	3.68%	0.203%
3	2.469	205	207	210	rVB	2137223	1081327	14.80%	0.816%
4	2.603	229	232	234	rVB3	277965	221468	3.03%	0.167%
5	2.699	248	250	253	rVV	771137	524928	7.19%	0.396%
6	2.736	255	257	259	rVB2	322356	192416	2.63%	0.145%
7	2.768	261	263	265	rVB2	472655	234938	3.22%	0.177%
8	2.806	268	270	273	rVB3	281820	211947	2.90%	0.160%
9	2.838	273	276	278	rBV3	524517	638322	8.74%	0.482%
10	2.864	278	281	284	rVB4	404379	399342	5.47%	0.301%
11	2.960	297	299	302	rBV3	306591	256699	3.51%	0.194%
12	3.014	305	309	311	rBV2	2845344	2347176	32.13%	1.771%
13	3.030	311	312	316	rVB2	491801	308547	4.22%	0.233%
14	3.099	323	325	329	rBV4	556410	597147	8.18%	0.450%
15	3.131	329	331	333	rVB3	352058	251689	3.45%	0.190%
16	3.153	333	335	337	rBV	893776	546053	7.48%	0.412%
17	3.174	337	339	342	rVB2	396508	247813	3.39%	0.187%
18	3.212	345	346	348	rBV2	378043	262647	3.60%	0.198%
19	3.249	350	353	355	rBV3	347374	256324	3.51%	0.193%
20	3.270	355	357	362	rVB3	764537	655394	8.97%	0.494%
21	3.313	363	365	369	rVB5	288315	202811	2.78%	0.153%
22	3.356	369	373	375	rBV4	546909	726950	9.95%	0.548%
23	3.372	375	376	379	rVB3	653718	493841	6.76%	0.373%
24	3.404	379	382	383	rBV2	438456	237330	3.25%	0.179%
25	3.420	383	385	389	rVB2	1240637	890685	12.19%	0.672%
26	3.457	389	392	393	rBV2	299045	350980	4.81%	0.265%
27	3.473	393	395	398	rBV	2638655	1627308	22.28%	1.228%
28	3.548	408	409	411	rBV2	350202	255062	3.49%	0.192%
29	3.580	414	415	417	rVV2	371897	239142	3.27%	0.180%
30	3.596	417	418	422	rVV2	1406267	1124964	15.40%	0.849%
31	3.623	422	423	424	rVV	1575402	605833	8.29%	0.457%
32	3.639	424	426	429	rVB3	1832359	1356161	18.57%	1.023%
33	3.671	429	432	434	rBV3	463285	344716	4.72%	0.260%
34	3.692	434	436	440	rBV2	805918	755825	10.35%	0.570%
35	3.735	442	444	447	rBV3	870685	754754	10.33%	0.569%
36	3.805	453	457	459	rBV2	2131070	1874594	25.66%	1.414%
37	3.821	459	460	462	rVV2	543511	360533	4.94%	0.272%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	3.837	462	463	467	rVB	1785289	1341913	18.37%	1.012%
39	3.869	467	469	470	rBV	922431	507249	6.94%	0.383%
40	3.890	470	473	475	rVB3	1756841	1207496	16.53%	0.911%
41	3.906	475	476	478	rVB	1769101	886163	12.13%	0.669%
42	3.927	478	480	482	rBV2	373169	292847	4.01%	0.221%
43	3.959	482	486	489	rBV2	1874910	1766209	24.18%	1.332%
44	3.992	490	492	496	rVB2	952434	916939	12.55%	0.692%
45	4.061	500	505	508	rBV2	2677514	2195992	30.06%	1.657%
46	4.104	511	513	516	rBV3	2007370	1609518	22.04%	1.214%
47	4.125	516	517	518	rVB	756177	249591	3.42%	0.188%
48	4.168	523	525	526	rBV	591238	382831	5.24%	0.289%
49	4.189	526	529	532	rVB	4404219	2571388	35.20%	1.940%
50	4.211	532	533	536	rVB3	370577	223760	3.06%	0.169%
51	4.243	536	539	541	rVB2	1129004	831344	11.38%	0.627%
52	4.285	542	547	548	rBV3	946476	1006507	13.78%	0.759%
53	4.312	550	552	553	rBV2	334177	237478	3.25%	0.179%
54	4.328	553	555	558	rBV3	606516	547797	7.50%	0.413%
55	4.355	558	560	563	rBV3	2511401	1602412	21.94%	1.209%
56	4.424	568	573	577	rVV2	3005867	2764433	37.85%	2.085%
57	4.488	581	585	588	rVB4	999828	1009839	13.83%	0.762%
58	4.542	593	595	596	rBV	2368595	1223003	16.74%	0.923%
59	4.601	603	606	611	rBV3	1421830	1754988	24.03%	1.324%
60	4.638	611	613	616	rVV3	898354	610200	8.35%	0.460%
61	4.670	616	619	622	rVB4	1180682	1325722	18.15%	1.000%
62	4.718	626	628	630	rBV2	1605639	1142150	15.64%	0.862%
63	4.766	634	637	639	rBV	1309311	1181537	16.18%	0.891%
64	4.809	642	645	647	rVV	3997356	2924103	40.03%	2.206%
65	4.830	647	649	651	rVV	4804412	2971123	40.68%	2.241%
66	4.852	651	653	656	rVV2	1628594	1494653	20.46%	1.128%
67	4.878	656	658	663	rVB2	3468756	3908414	53.51%	2.948%
68	4.921	664	666	669	rBV2	788296	735328	10.07%	0.555%
69	4.948	669	671	672	rVV	1133609	809089	11.08%	0.610%
70	4.969	674	675	677	rVV	1236999	966115	13.23%	0.729%
71	4.996	677	680	685	rVV3	2402599	3595597	49.23%	2.712%
72	5.033	685	687	688	rVV	1163988	867311	11.87%	0.654%
73	5.055	688	691	693	rVV2	3280623	3367478	46.10%	2.540%
74	5.076	693	695	697	rVV	4645737	3938463	53.92%	2.971%
75	5.124	700	704	706	rVV	8267108	7304366	100.00%	5.510%
76	5.140	706	707	709	rVV	4012948	2937038	40.21%	2.216%
77	5.156	709	710	712	rVV	2650988	2104877	28.82%	1.588%
78	5.172	712	713	714	rVV	2740826	1227281	16.80%	0.926%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

79	5.194	715	717	720	rVV	2673000	2163517	29.62%	1.632%
80	5.231	720	724	728	rVV5	2174054	3385497	46.35%	2.554%
81	5.263	728	730	731	rVV2	889613	793656	10.87%	0.599%
82	5.279	731	733	736	rVV2	1443578	1433652	19.63%	1.082%
83	5.322	736	741	745	rVV3	3141993	4716318	64.57%	3.558%
84	5.364	745	749	752	rVV2	5012426	5895127	80.71%	4.447%
85	5.391	752	754	756	rVV	5547664	4446573	60.88%	3.354%
86	5.413	756	758	760	rVV	5063479	3624083	49.62%	2.734%
87	5.439	760	763	765	rVV2	2949455	2993697	40.99%	2.258%
88	5.461	765	767	771	rVV	1483057	1593509	21.82%	1.202%
89	5.493	771	773	776	rVV3	792825	929673	12.73%	0.701%
90	5.541	780	782	787	rBV5	665768	613796	8.40%	0.463%
91	5.685	806	809	815	rBV3	1245524	1546006	21.17%	1.166%
92	5.776	823	826	828	rBV2	1449181	1292048	17.69%	0.975%
93	5.803	828	831	833	rVV2	753442	695000	9.51%	0.524%
94	6.054	876	878	881	rVB	720714	507132	6.94%	0.383%
95	6.102	885	887	889	rVB	808056	506096	6.93%	0.382%
96	6.128	889	892	894	rBV2	1088475	823547	11.27%	0.621%
97	6.214	906	908	910	rBV	545719	365214	5.00%	0.276%
98	6.305	921	925	927	rBV2	1502519	1836069	25.14%	1.385%
99	6.380	937	939	943	rVB2	900208	690318	9.45%	0.521%
100	6.615	979	983	986	rVB	1000676	1264159	17.31%	0.954%

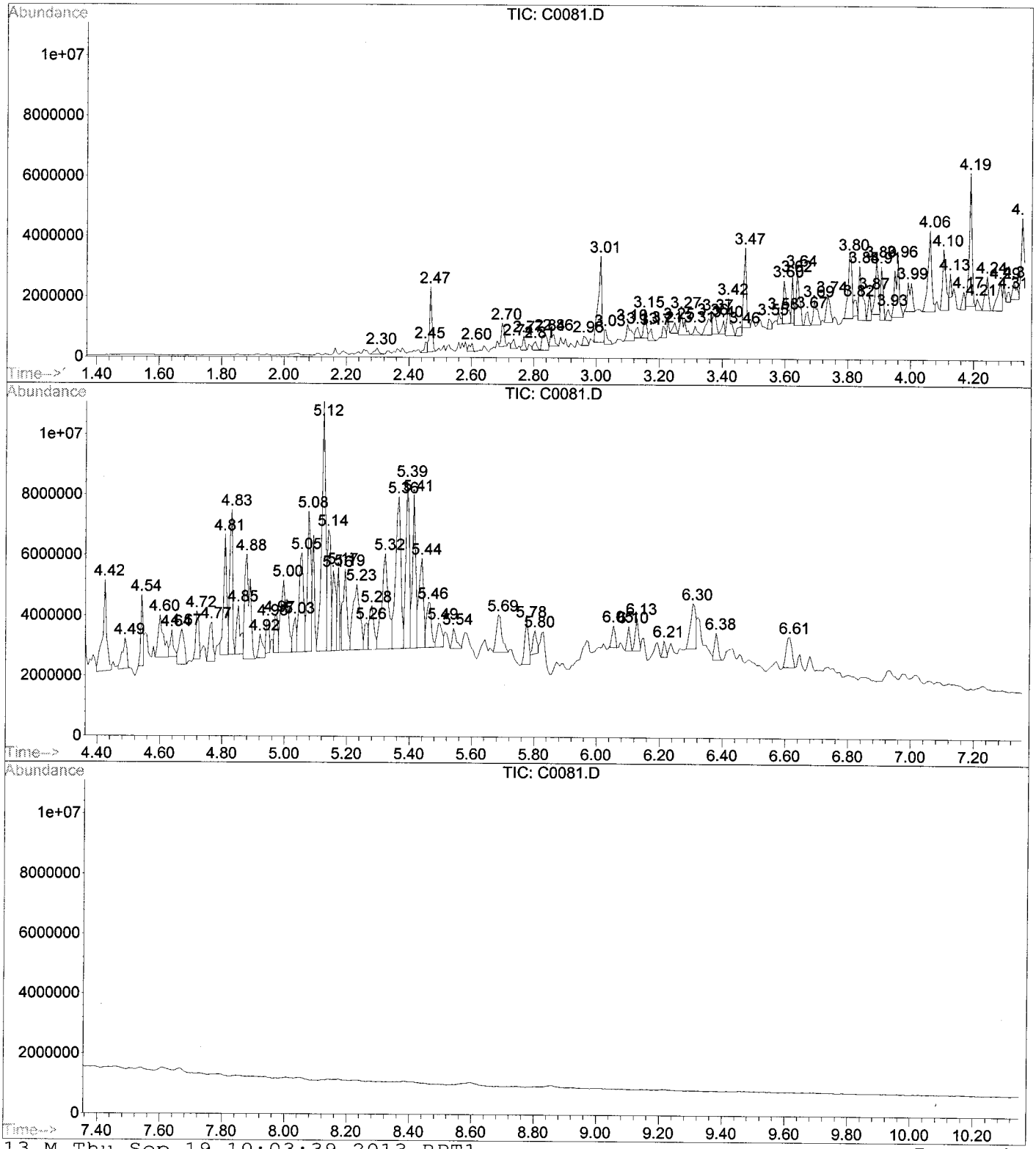
Sum of corrected areas: 132559164

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

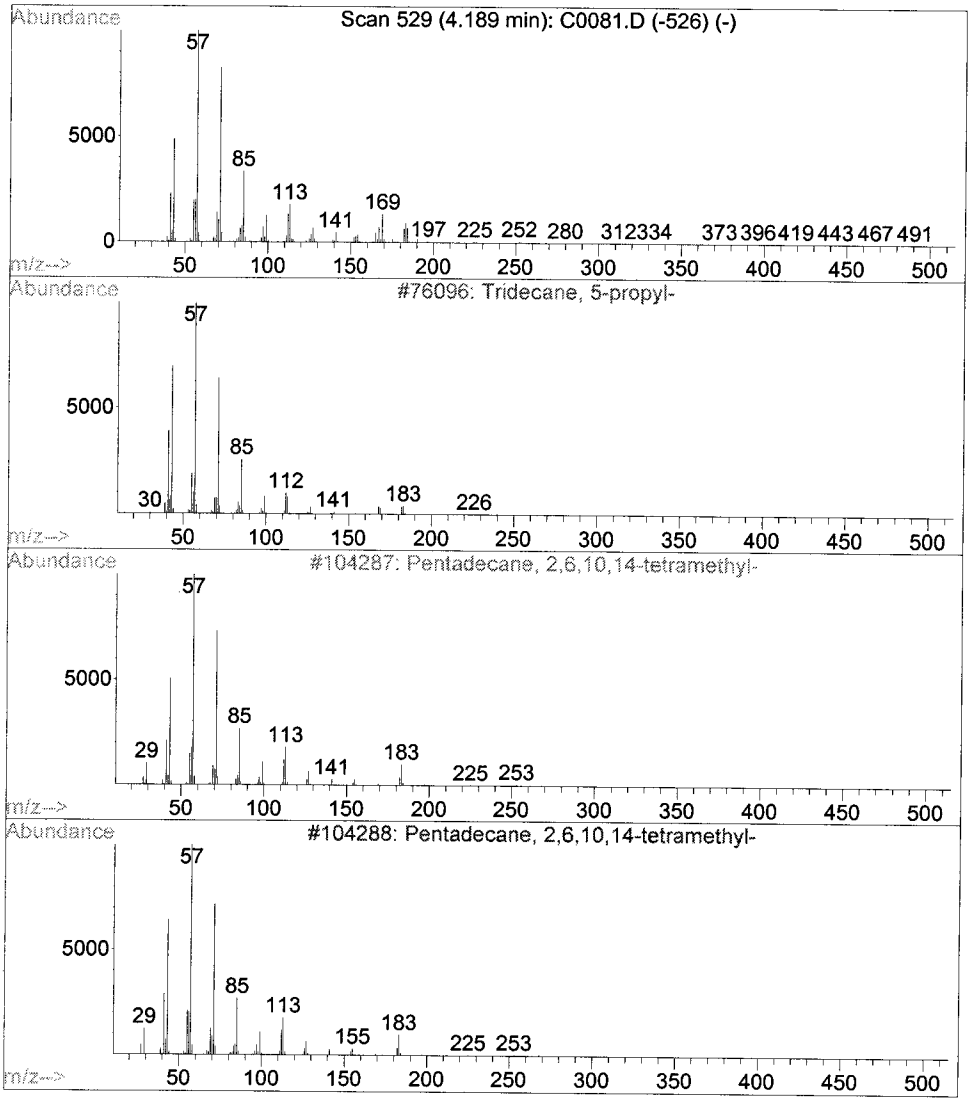
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

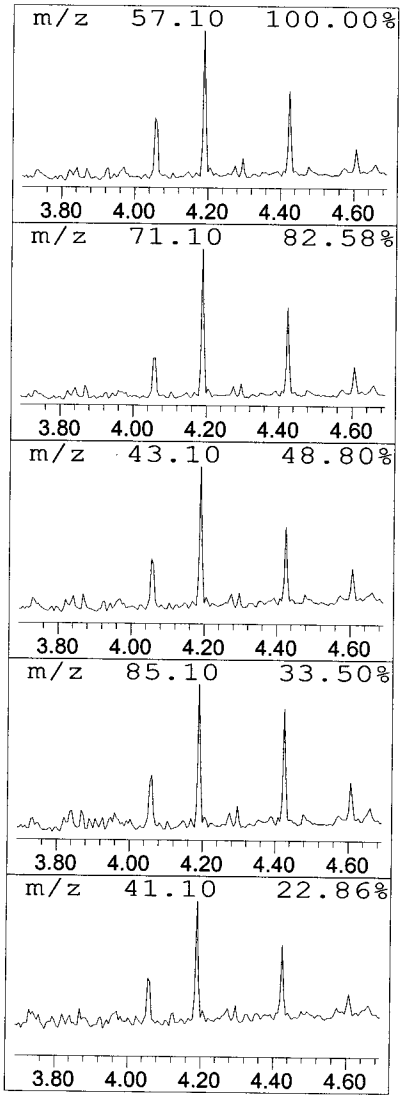
****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.19	84.10 UG	2571390	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane, 5-propyl-	226	C16H34	055045-11-9	90
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	90
3	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	90
4	Dodecane, 2-methyl-8-propyl-	226	C16H34	055045-07-3	90
5	Hexadecane, 2,6,11,15-tetramethyl-	282	C20H42	000504-44-9	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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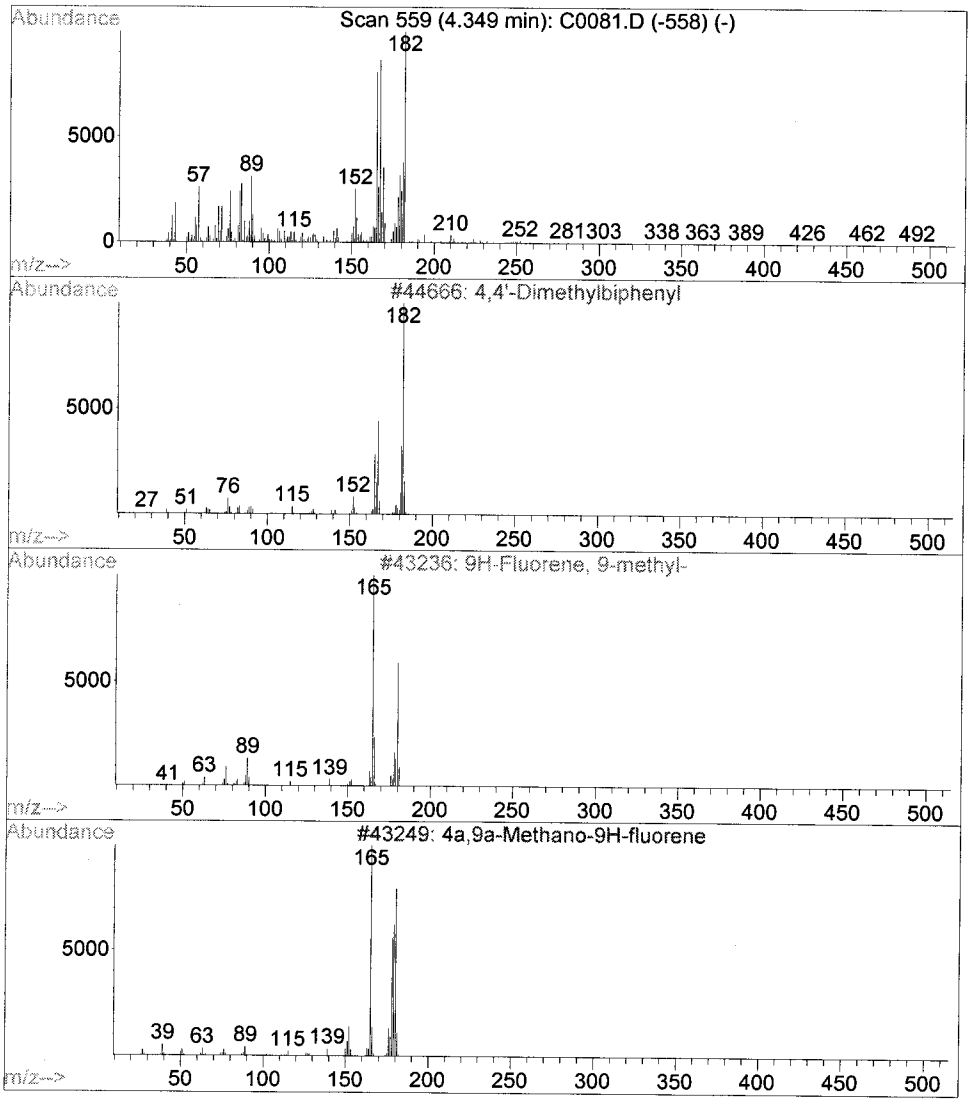
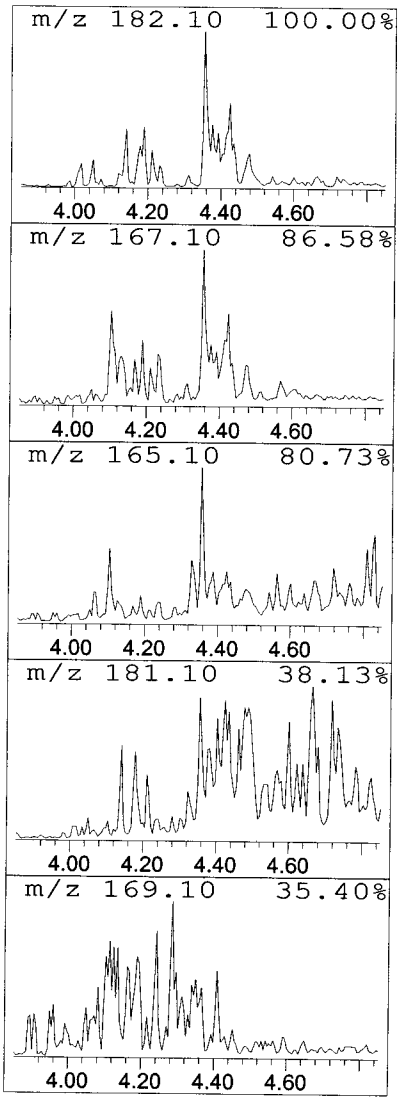
Peak Number 2 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.35	52.41 UG	1602410	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4,4'-Dimethylbiphenyl	182	C14H14	000613-33-2	64
2	9H-Fluorene, 9-methyl-	180	C14H12	002523-37-7	42
3	4a,9a-Methano-9H-fluorene	180	C14H12	019540-84-2	41
4	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	38
5	3H-Benz[e]indene, 2-methyl-	180	C14H12	150096-60-9	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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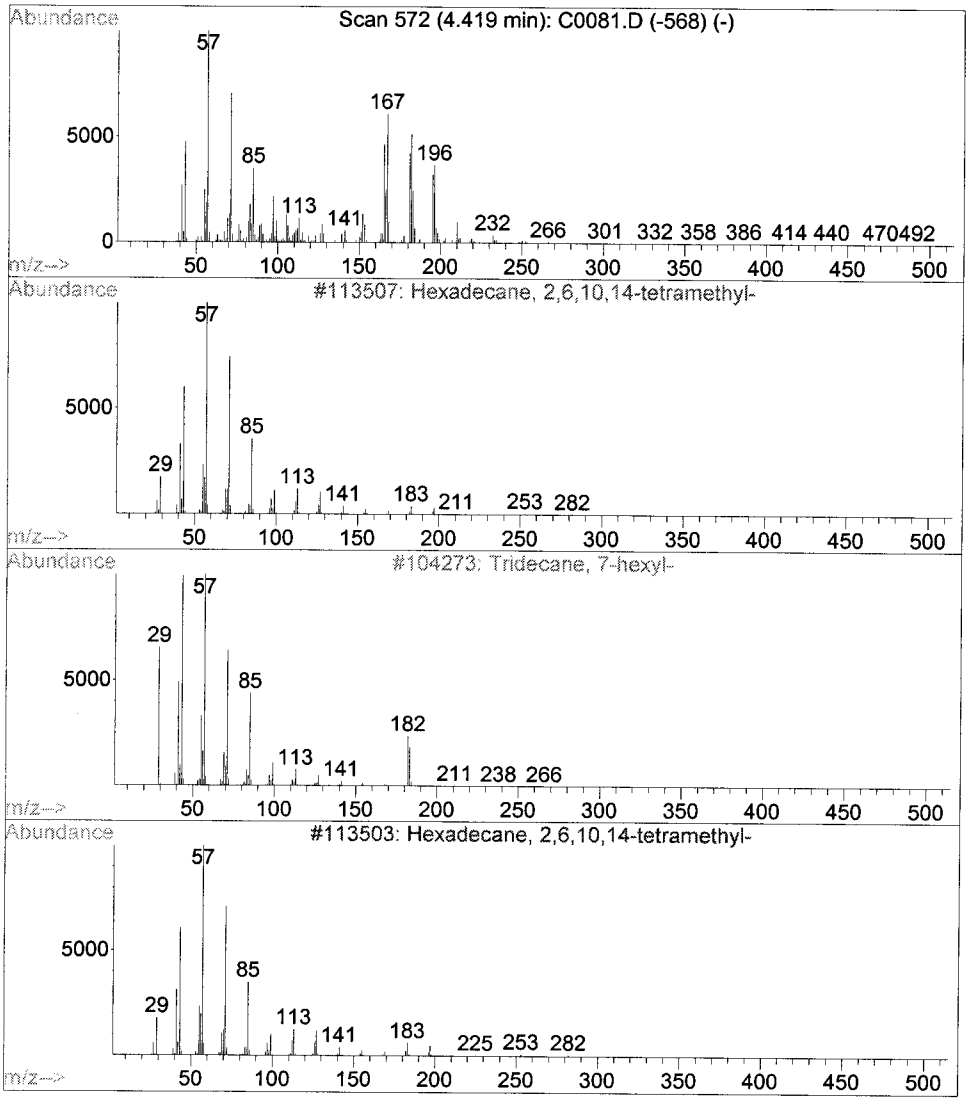
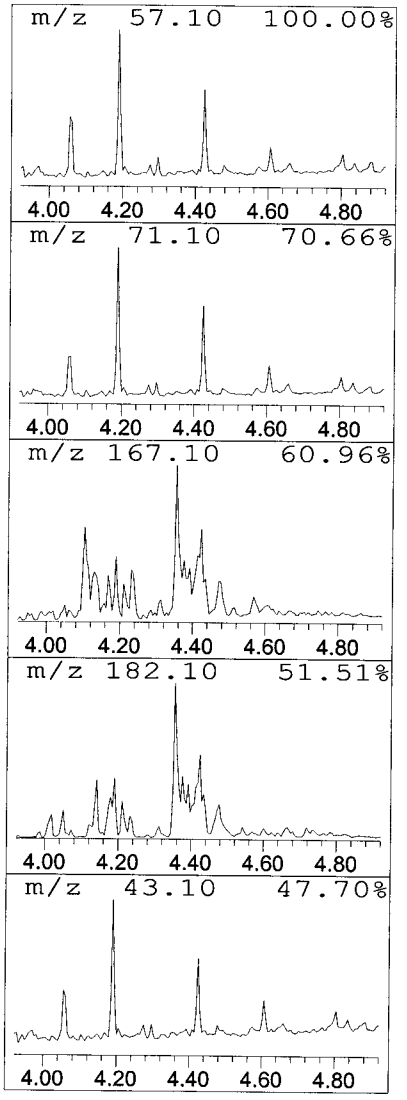
Peak Number 3 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.42	90.41 UG	2764430	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	98
2	Tridecane, 7-hexyl-	268	C19H40	007225-66-3	89
3	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	70
4	Pentadecane	212	C15H32	000629-62-9	64
5	Hexacosane	366	C26H54	000630-01-3	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

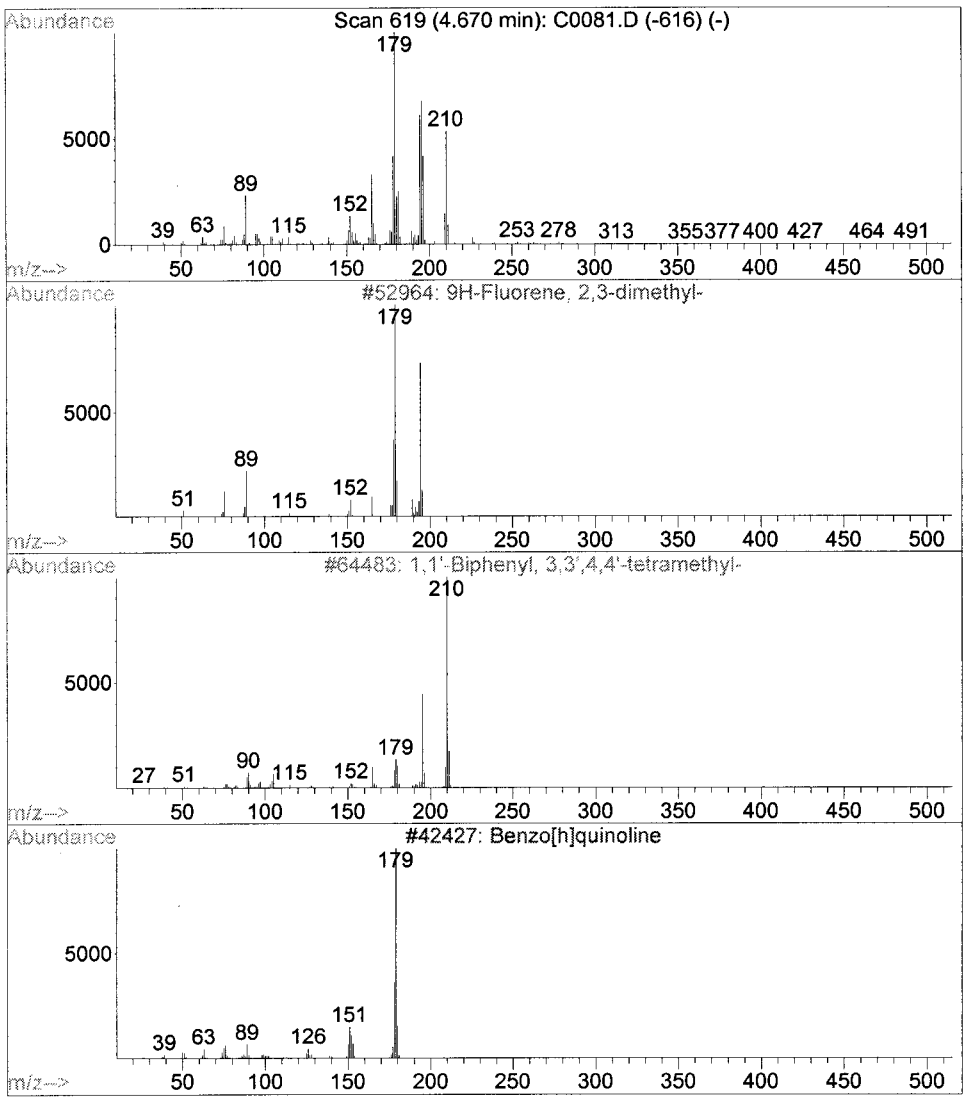
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

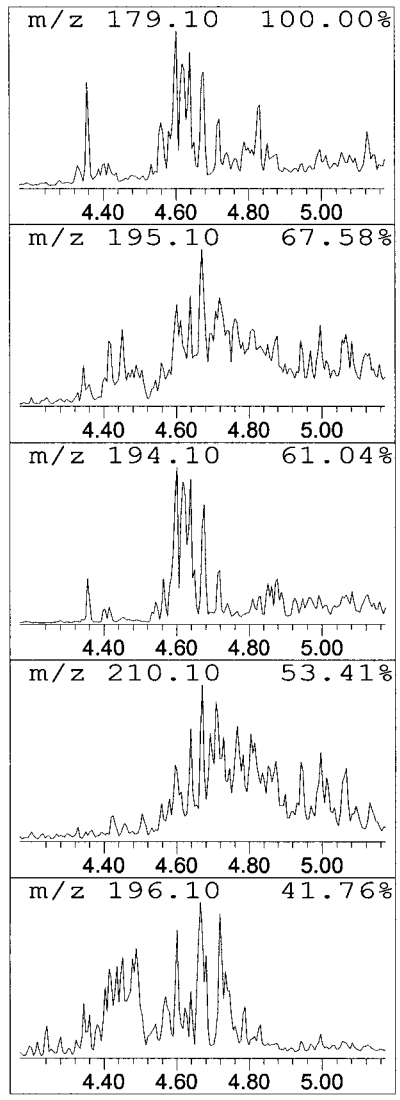
****

Peak Number 4 Unknown PAH Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.67	43.36 UG	1325720	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9H-Fluorene, 2,3-dimethyl-	194	C15H14	004612-63-9	53
2	1,1'-Biphenyl, 3,3',4,4'-tetrame...	210	C16H18	004920-95-0	41
3	Benzo[h]quinoline	179	C13H9N	000230-27-3	30
4	9H-Fluorene, 1,9-dimethyl-	194	C15H14	017057-98-6	30
5	Silane, trimethyl(3,5-xylyloxy)-	194	C11H18OSi	017994-05-7	30





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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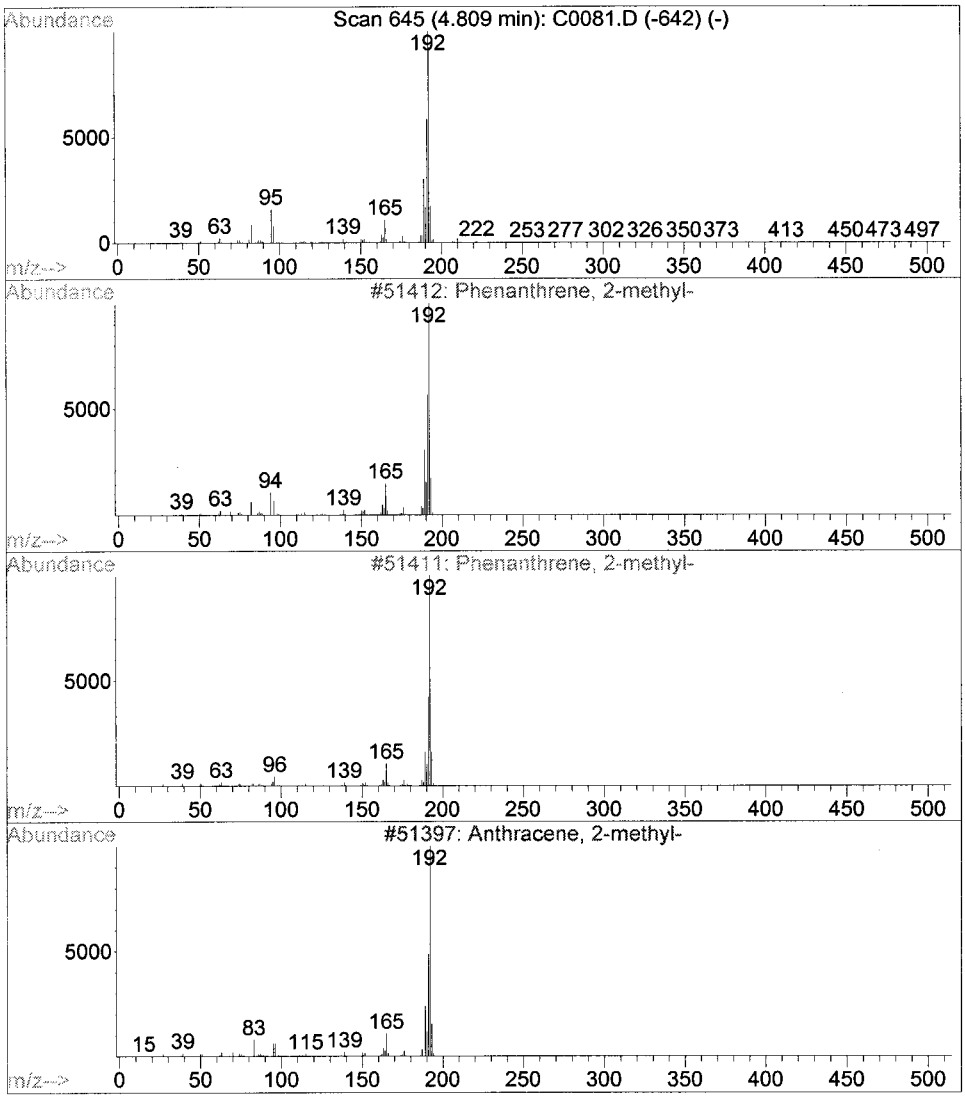
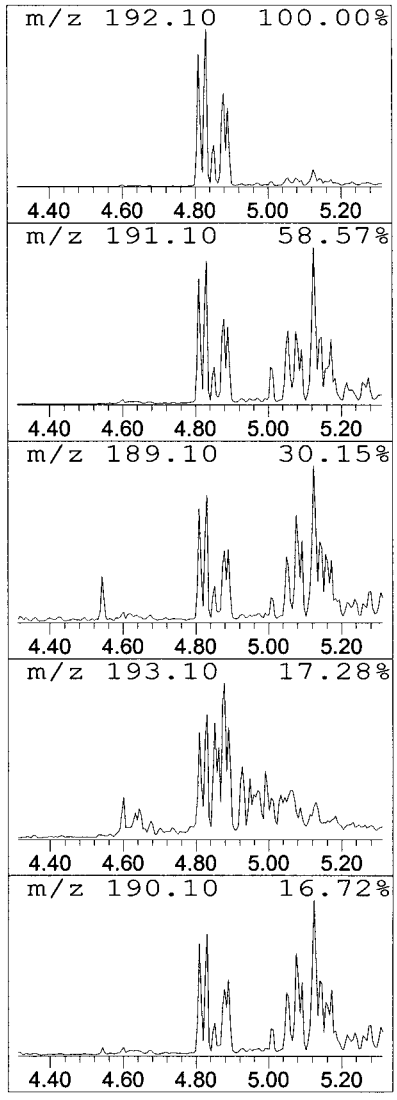
Peak Number 5 Unknown PAH Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.81	95.64 UG	2924100	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	97
2	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	96
3	Anthracene, 2-methyl-	192	C15H12	000613-12-7	96
4	Anthracene, 9-methyl-	192	C15H12	000779-02-2	95
5	Anthracene, 1-methyl-	192	C15H12	000610-48-0	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

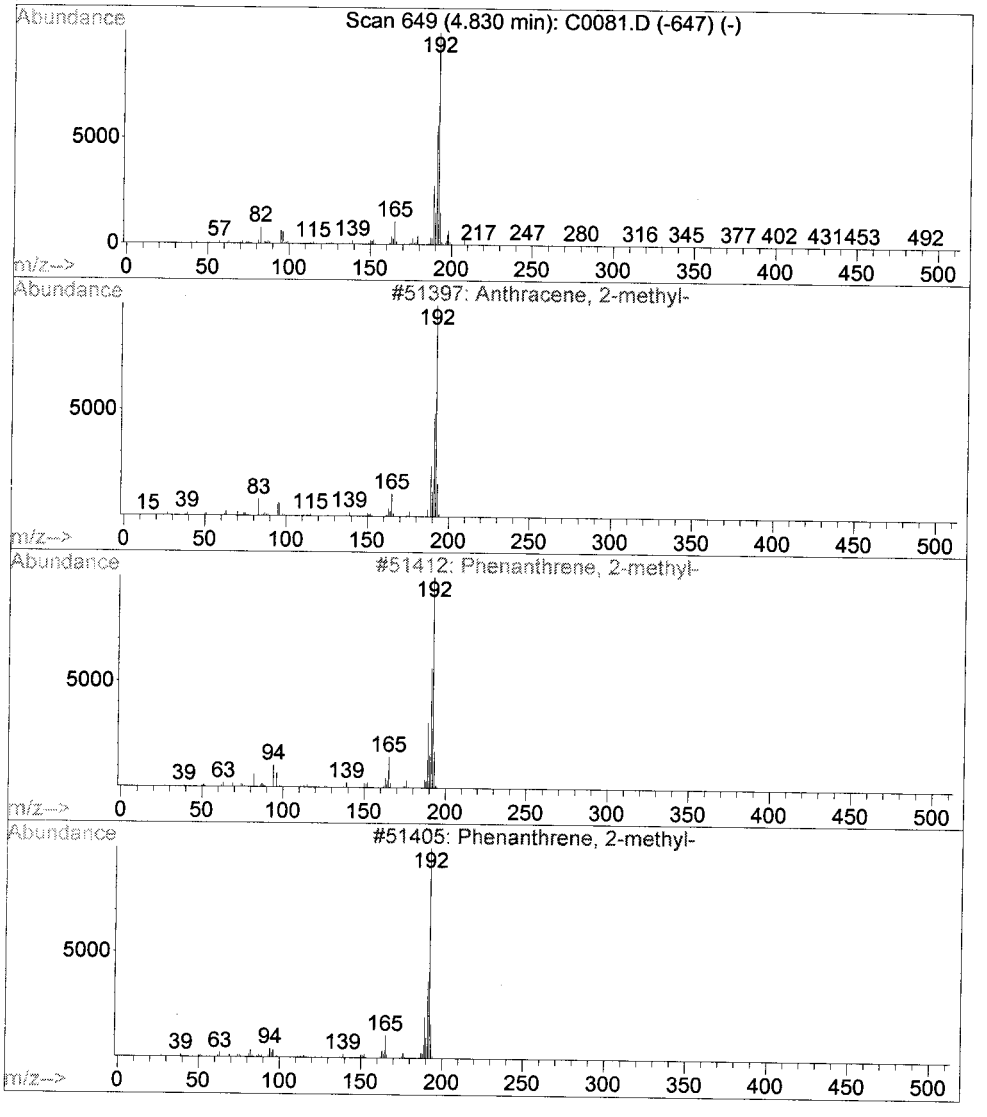
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

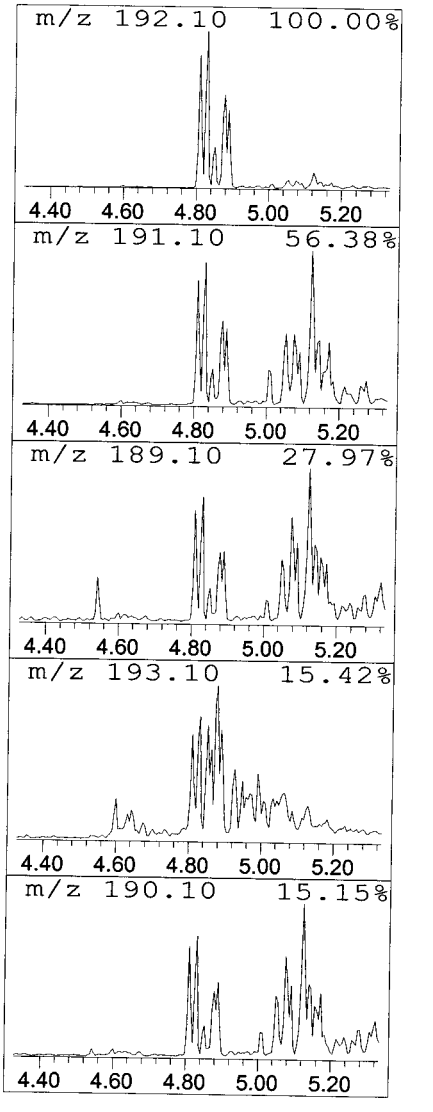
****

Peak Number 6 Unknown PAH Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.83	97.17 UG	2971120	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 2-methyl-	192	C15H12	000613-12-7	96
2	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	95
3	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	95
4	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	95
5	Anthracene, 1-methyl-	192	C15H12	000610-48-0	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

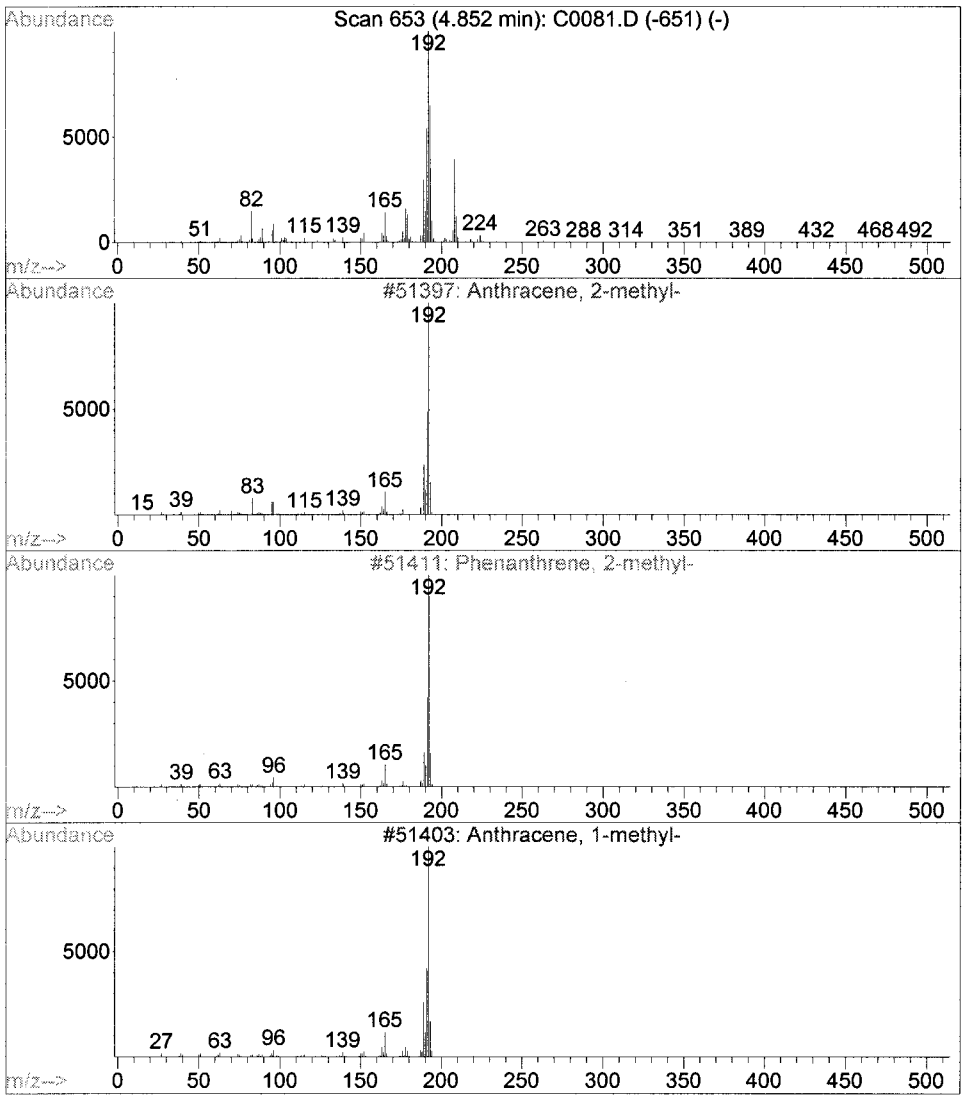
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

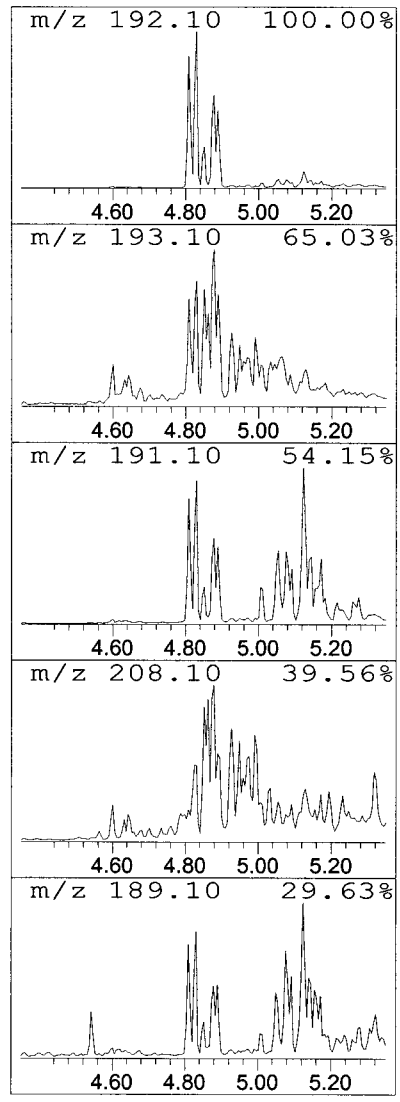
****

Peak Number 7 Unknown PAH Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	48.88 UG	1494650	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 2-methyl-	192	C15H12	000613-12-7	89
2	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	89
3	Anthracene, 1-methyl-	192	C15H12	000610-48-0	89
4	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	86
5	Anthracene, 2-methyl-	192	C15H12	000613-12-7	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

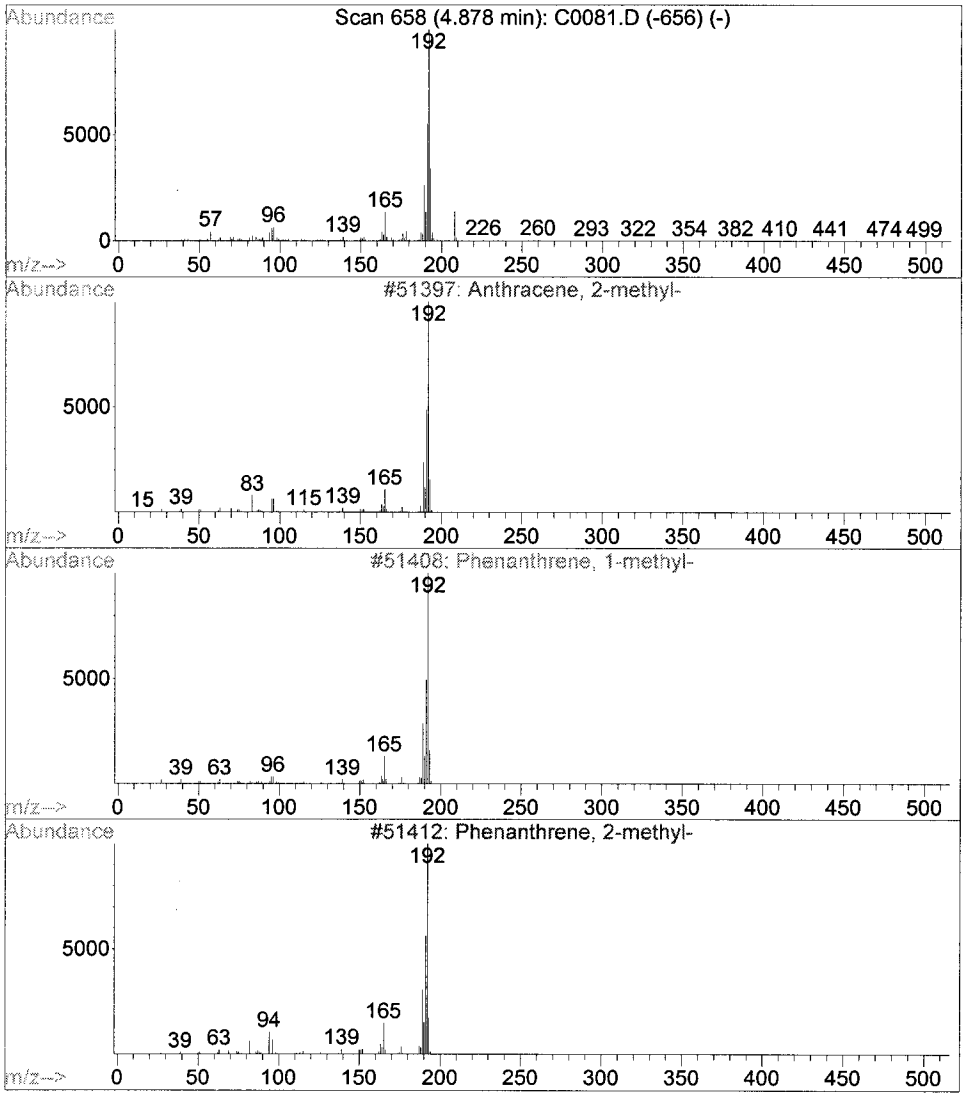
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

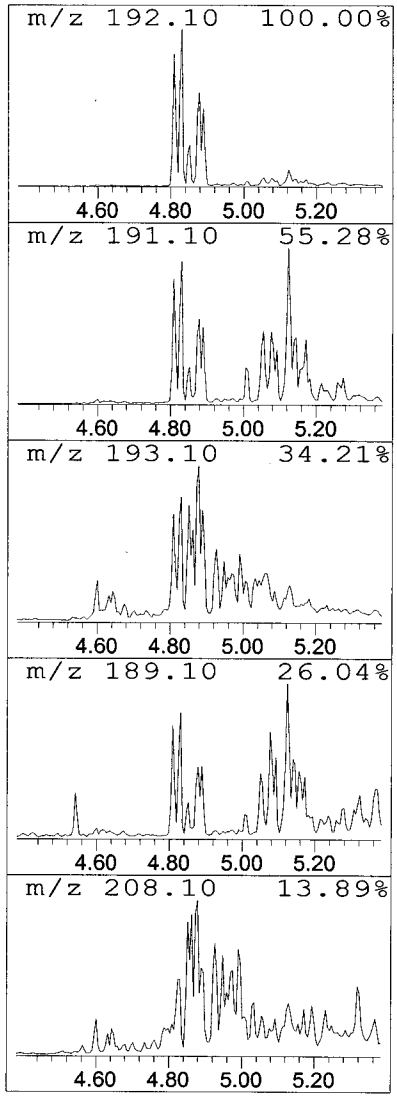
****

Peak Number 8 Unknown PAH Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.88	127.83 UG	3908410	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 2-methyl-	192	C15H12	000613-12-7	96
2	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	96
3	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	95
4	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	95
5	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

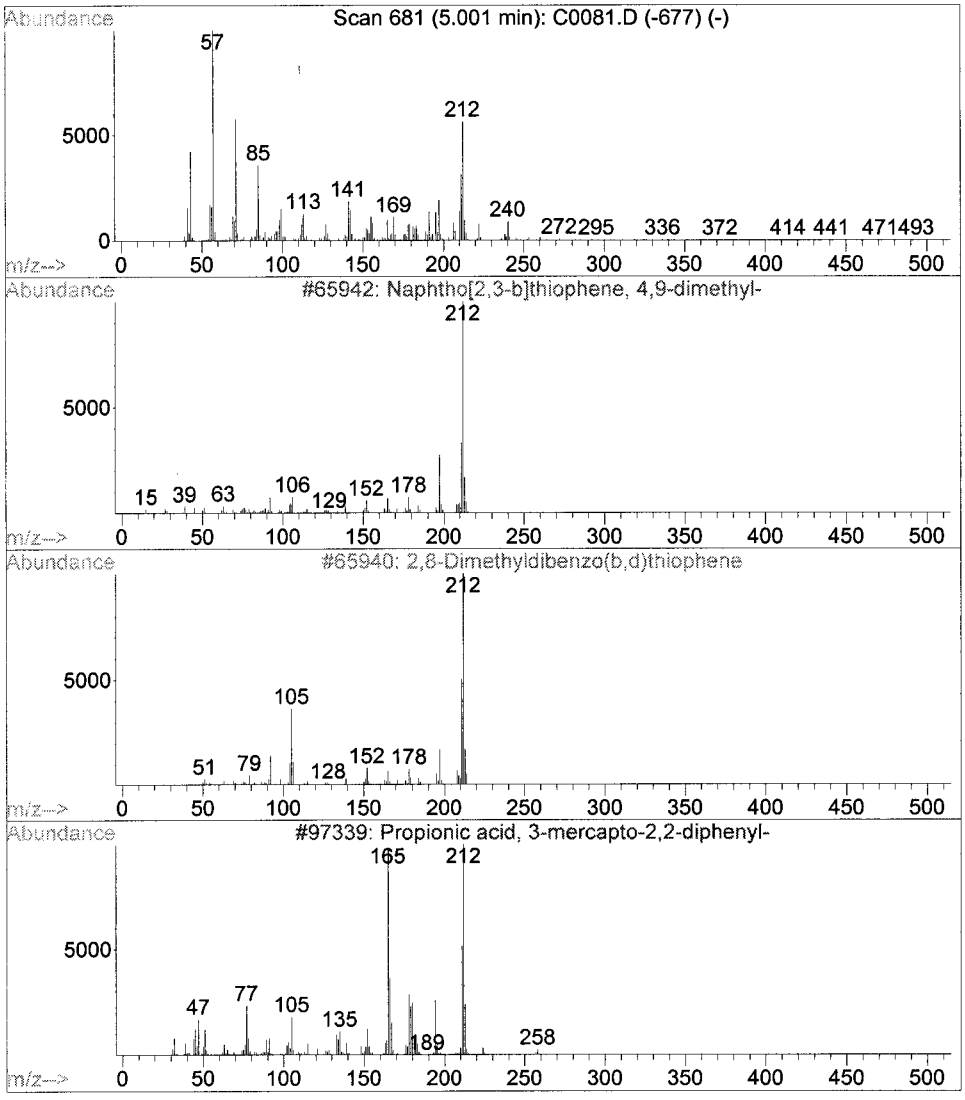
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

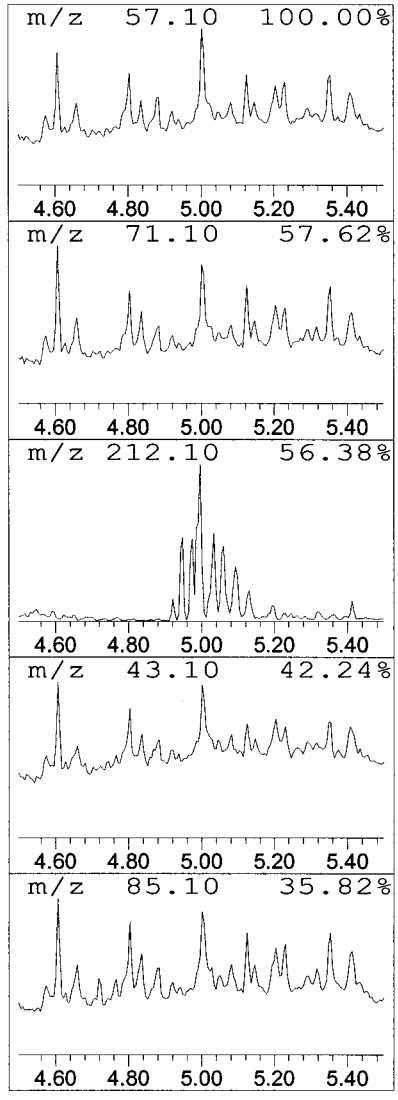
****

Peak Number 9 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.00	117.60 UG	3595600	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphtho[2,3-b]thiophene, 4,9-dim...	212	C14H12S	016587-34-1	93
2	2,8-Dimethyldibenzo(b,d)thiophene	212	C14H12S	001207-15-4	90
3	Propionic acid, 3-mercapto-2,2-d...	258	C15H14O2S	053216-38-9	53
4	2,5-Dimethyl-4-(3-amino-4-methyl...	212	C14H16N2	071153-33-8	53
5	Harmine	212	C13H12N2O	000442-51-3	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

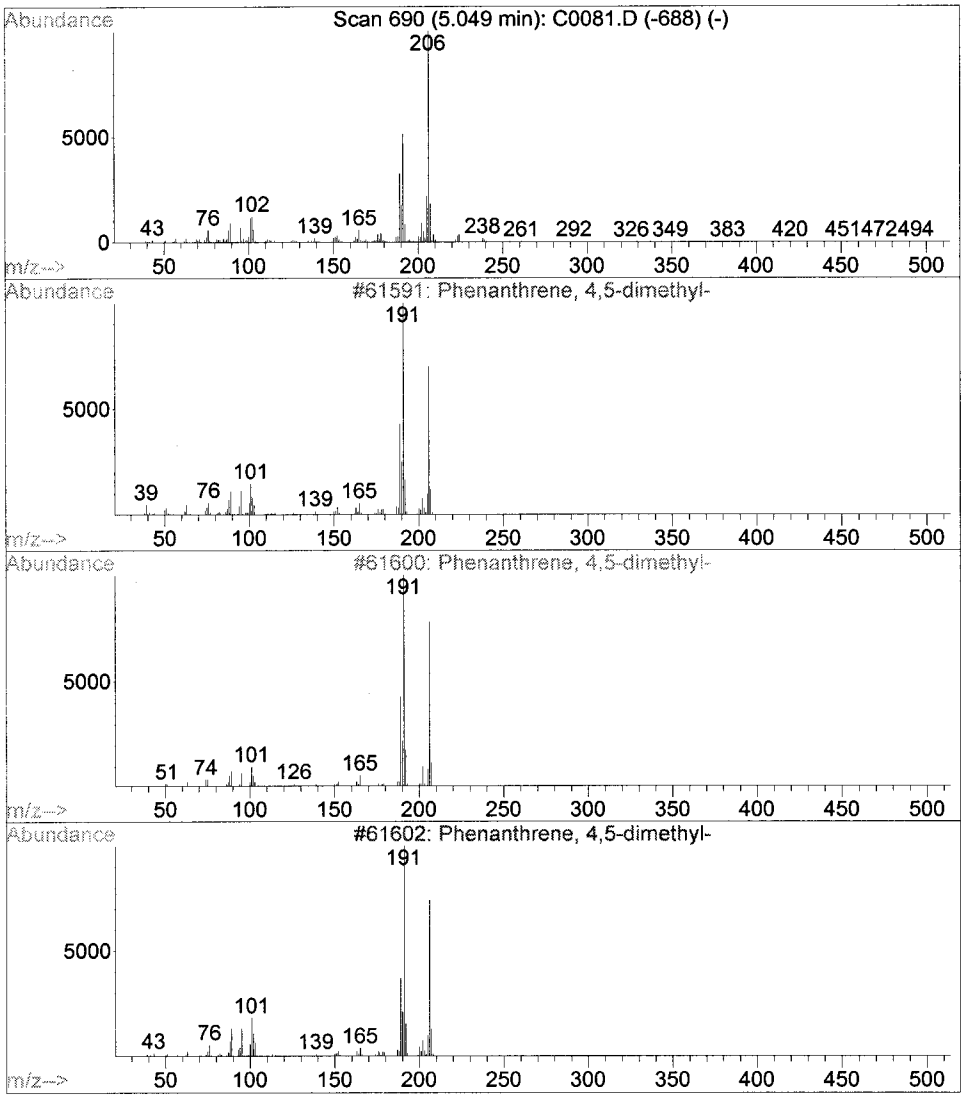
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

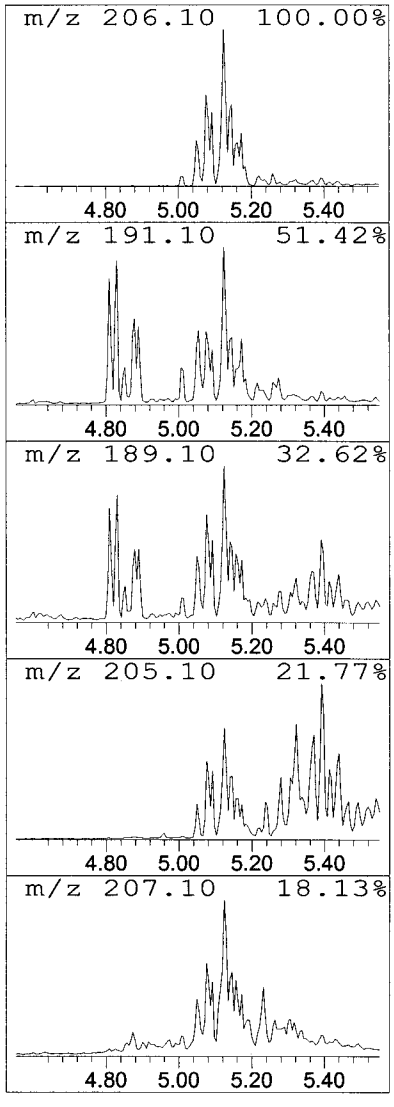
****

Peak Number 10 Unknown PAH Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.05	110.14 UG	3367480	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 4,5-dimethyl-	206	C16H14	003674-69-9	95
2	Phenanthrene, 4,5-dimethyl-	206	C16H14	003674-69-9	94
3	Phenanthrene, 4,5-dimethyl-	206	C16H14	003674-69-9	94
4	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	91
5	Anthracene, 2-ethyl-	206	C16H14	052251-71-5	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

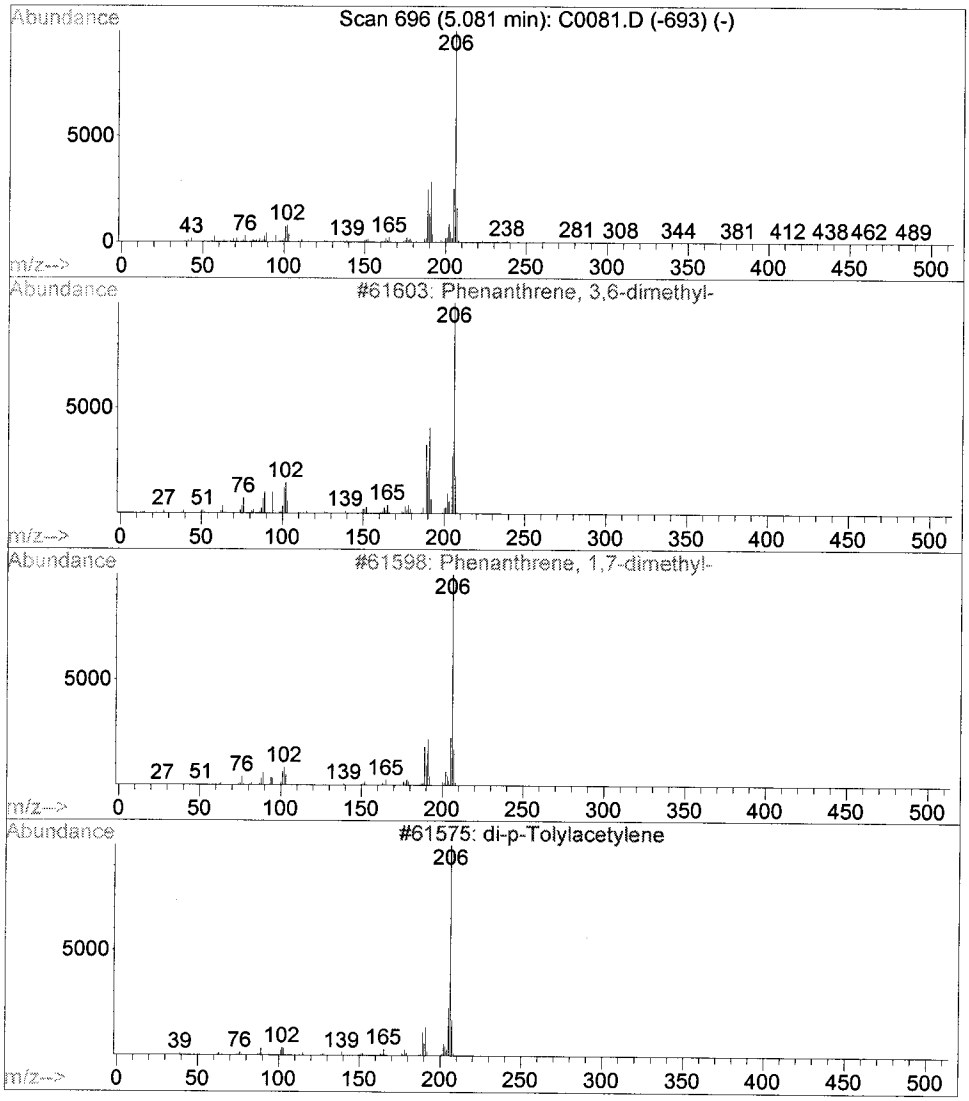
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

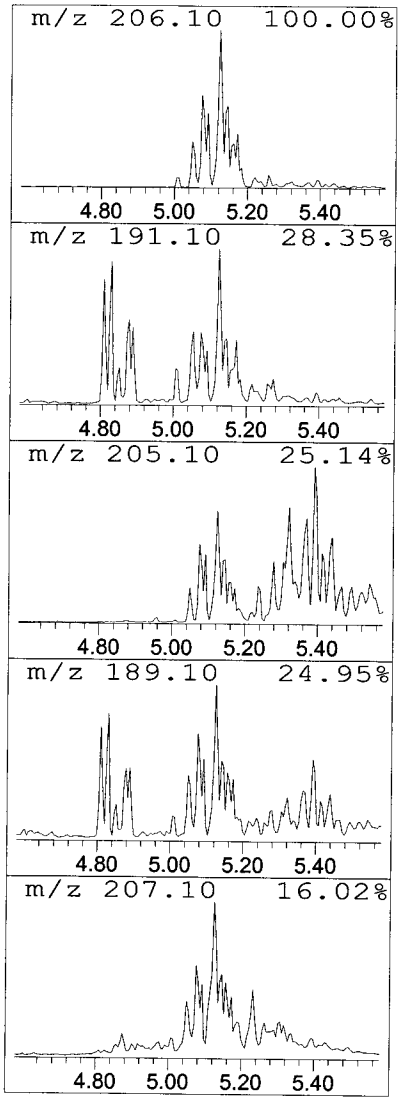
****

Peak Number 11 Unknown PAH Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.08	128.81 UG	3938460	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	94
2	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	94
3	di-p-Tolylacetylene	206	C16H14	002789-88-0	94
4	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	94
5	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	93





E13-09135 0173

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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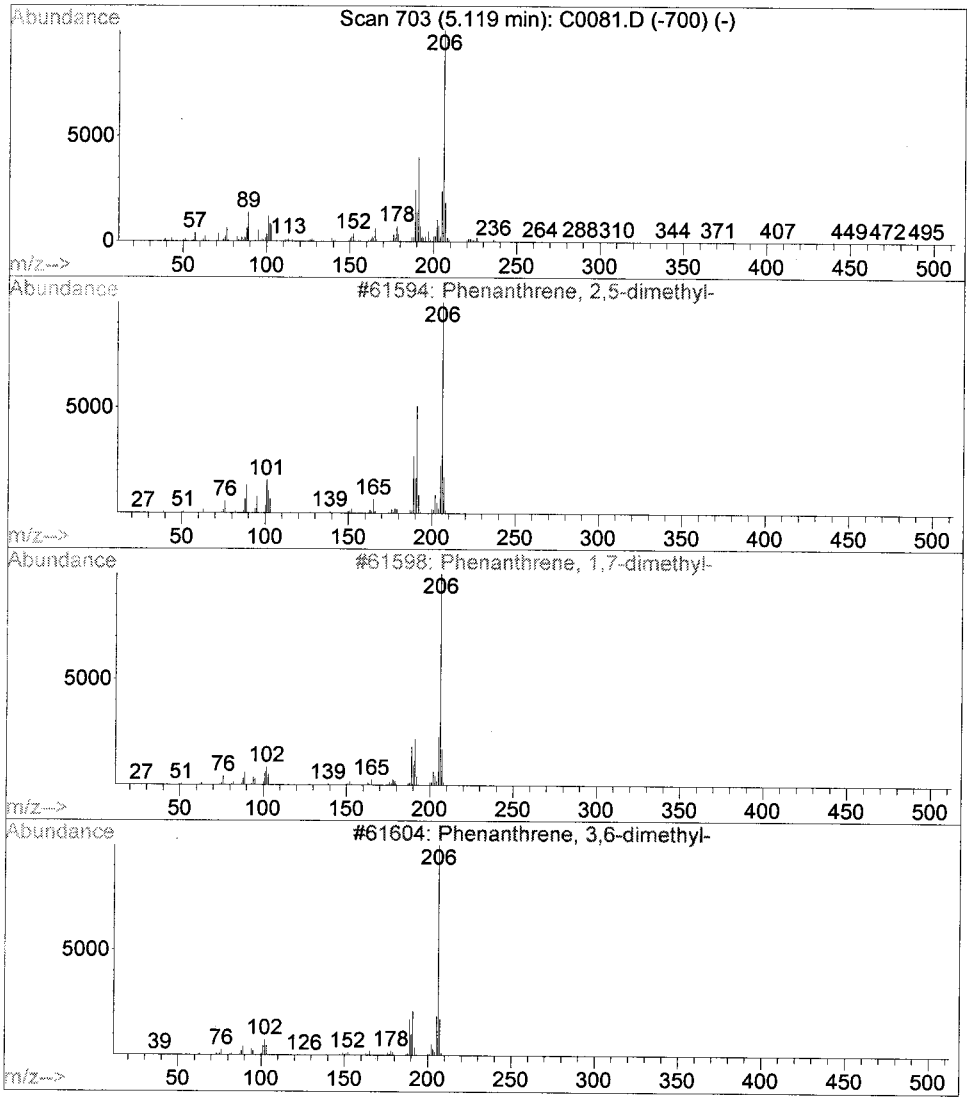
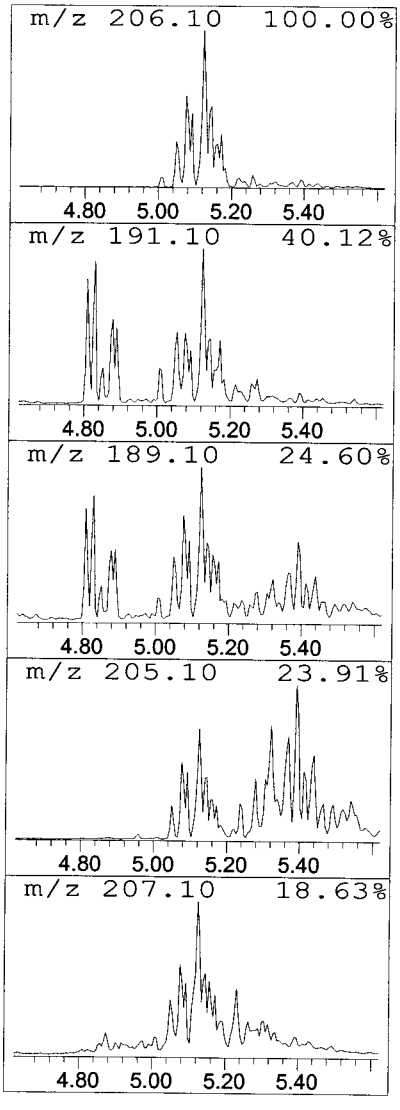
Peak Number 12 Unknown PAH Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.12	238.90 UG	7304370	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	99
2	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	96
3	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	95
4	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	95
5	Anthracene, 1,4-dimethyl-	206	C16H14	000781-92-0	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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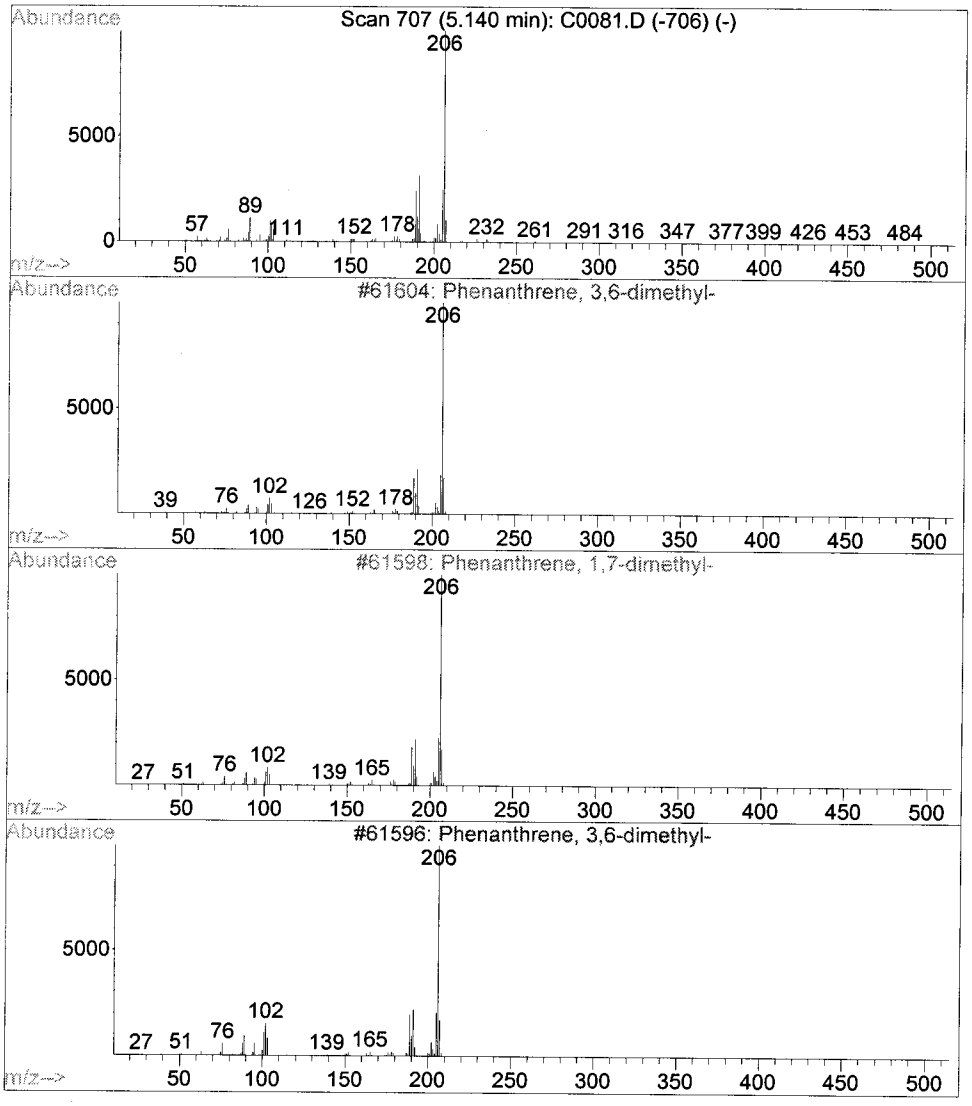
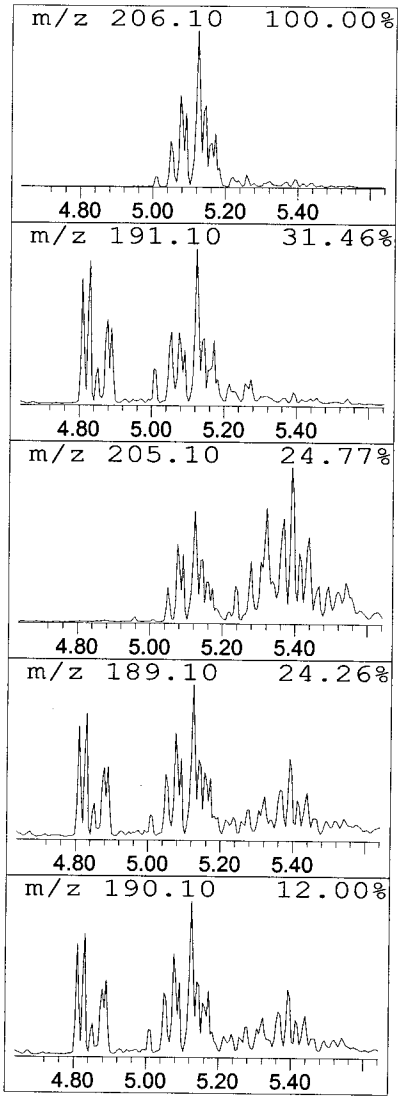
Peak Number 13 Unknown PAH Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.14	96.06 UG	2937040	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	93
2	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	90
3	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	87
4	di-p-Tolylacetylene	206	C16H14	002789-88-0	87
5	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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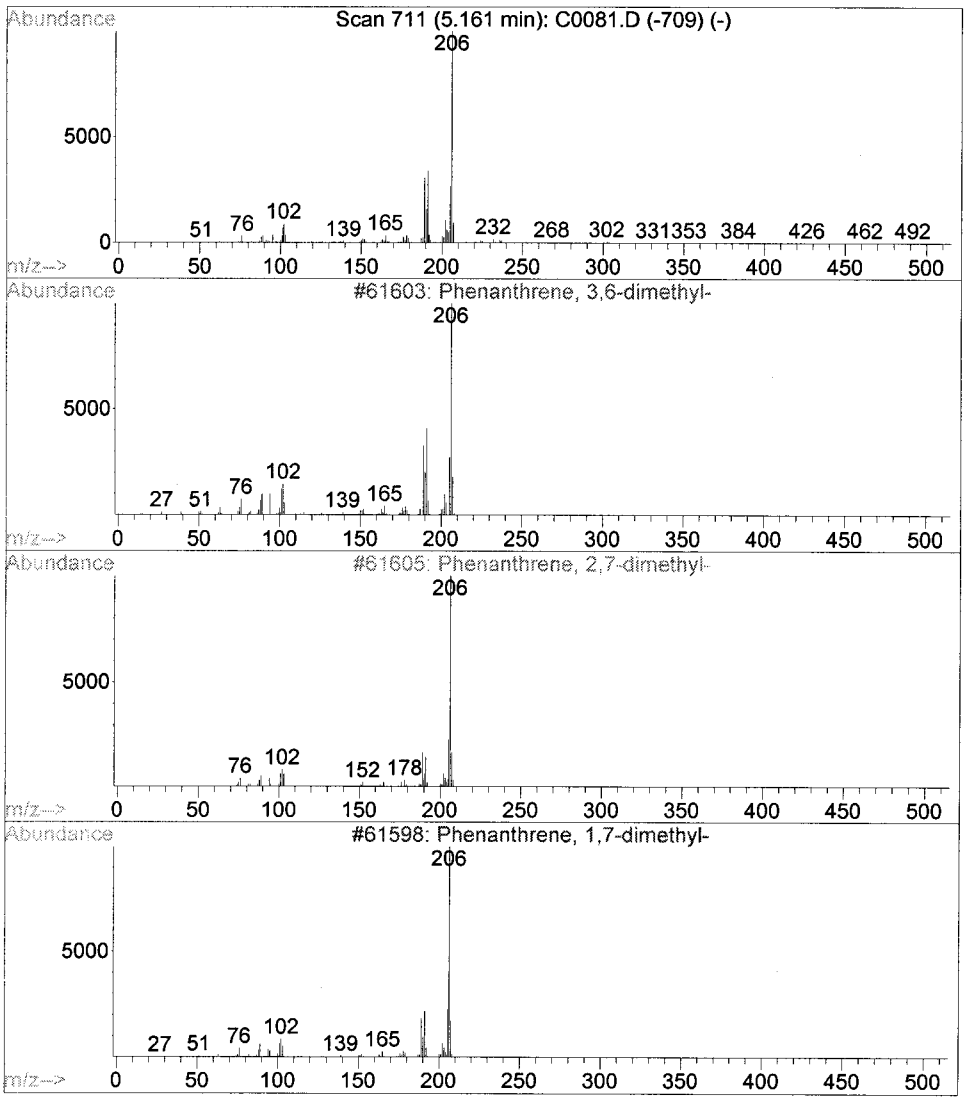
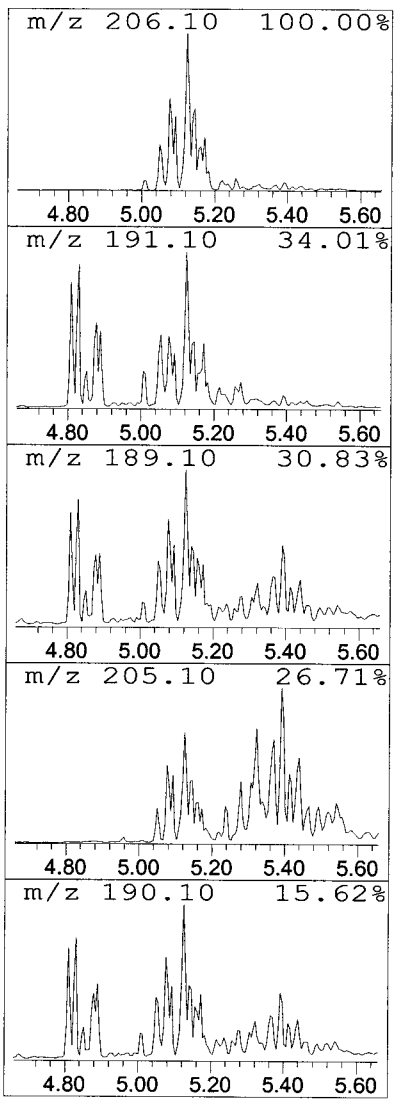
Peak Number 14 Unknown PAH Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.16	68.84 UG	2104880	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	96
2	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	93
3	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	93
4	di-p-Tolylacetylene	206	C16H14	002789-88-0	90
5	di-p-Tolylacetylene	206	C16H14	002789-88-0	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0081.D
Acq On : 18 Sep 2013 21:15
Operator : EDM
Sample : AOC-2-3/,E13-09135-003,S,15.10g,12.6,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

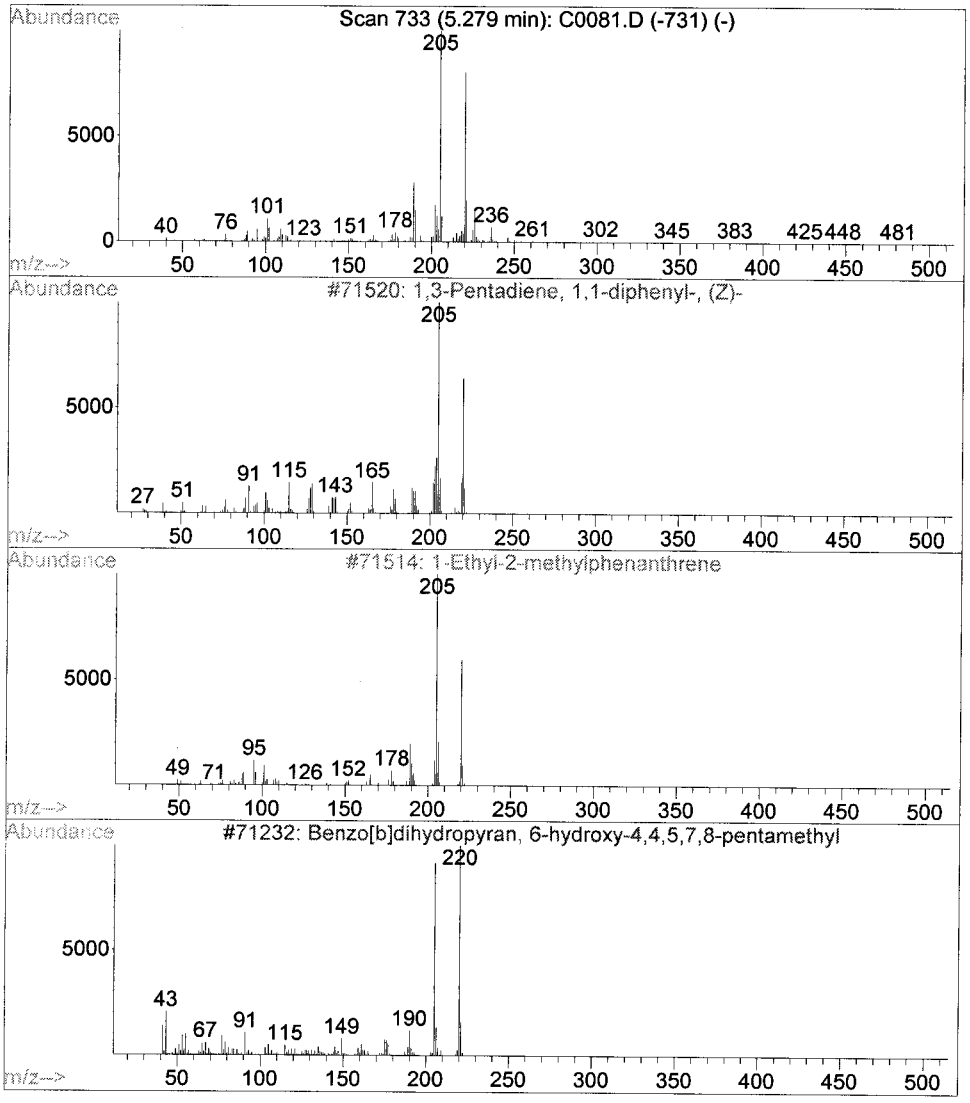
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

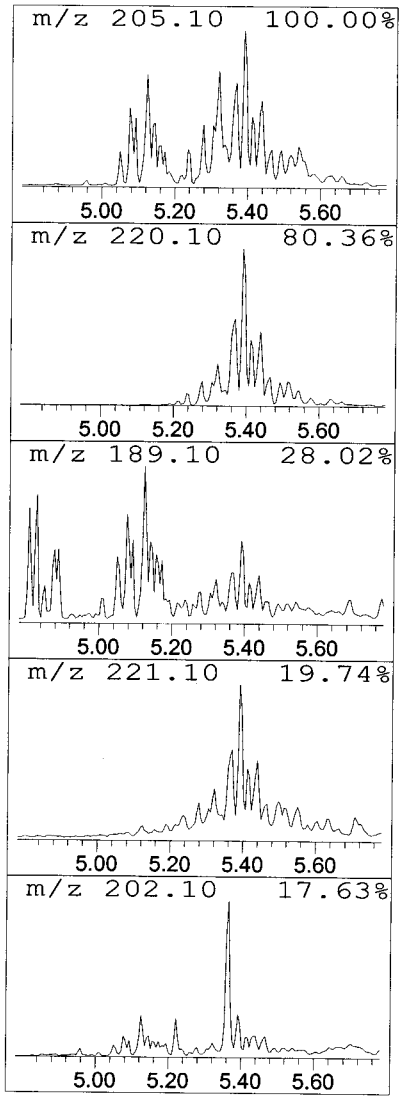
****

Peak Number 15 Unknown SV Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.28	46.89 UG	1433650	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3-Pentadiene, 1,1-diphenyl-, (Z)-	220	C17H16	015295-31-5	64
2	1-Ethyl-2-methylphenanthrene	220	C17H16	061983-53-7	59
3	Benzo[b]dihydropyran, 6-hydroxy-...	220	C14H20O2	050442-70-1	59
4	Naphthalene, 1,4-bis(methylthio)-	220	C12H12S2	010075-73-7	59
5	Xylazine	220	C12H16N2S	007361-61-7	53





E13-09135 0177

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Sep 19 10:06:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

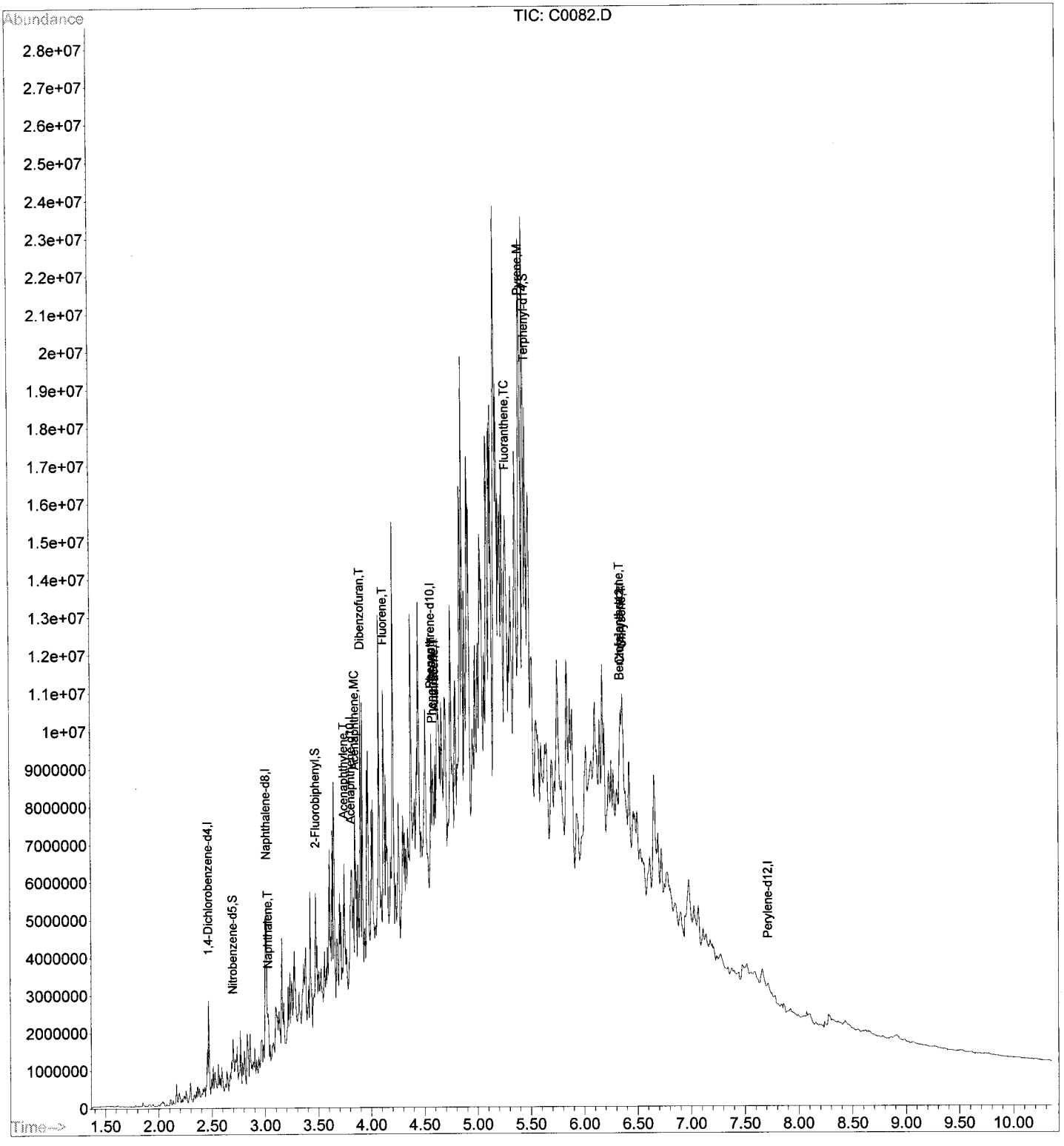
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	217500	40.00	UG	0.00
23) Naphthalene-d8	3.01	136	819318	40.00	UG	-0.01
43) Acenaphthene-d10	3.82	164	396928	40.00	UG	-0.04
66) Phenanthrene-d10	4.57	188	643367m	40.00	UG	-0.08
82) Chrysene-d12	6.35	240	543050m	40.00	UG	-0.09
92) Perylene-d12	7.72	264	188530m	40.00	UG	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.70	82	200980	30.31	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery =	60.62%		
47) 2-Fluorobiphenyl	3.48	172	517539	38.57	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery =	77.14%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery =	0.00%#		
84) Terphenyl-d14	5.46	244	615015m	42.72	UG	-0.14
Spiked Amount 50.000	Range 15 - 122		Recovery =	85.44%		
Target Compounds						Qvalue
34) Naphthalene	3.03	128	33273	1.49	UG	# 48
53) Acenaphthylene	3.75	152	35250	2.10	UG	# 1
55) Acenaphthene	3.85	153	134982	11.92	UG	# 26
59) Dibenzofuran	3.91	168	78207	5.13	UG	# 1
61) Fluorene	4.12	166	104723	8.35	UG	# 1
75) Phenanthrene	4.58	178	700151m	40.21	UG	
76) Anthracene	4.61	178	404804m	23.10	UG	
79) Fluoranthene	5.27	202	601225m	32.68	UG	
83) Pyrene	5.41	202	2180795m	119.08	UG	
88) Benzo[a]anthracene	6.34	228	681470m	46.48	UG	
89) Chrysene	6.37	228	821936m	58.40	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Sep 19 10:06:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.298	171	175	179	rBV2	539717	491120	2.38%	0.138%
2	2.458	201	205	206	rBV	1268872	1057048	5.12%	0.297%
3	2.469	206	207	210	rVB	2503419	1233536	5.97%	0.346%
4	2.527	216	218	222	rBV2	450595	363287	1.76%	0.102%
5	2.592	229	230	234	rVB3	647141	450164	2.18%	0.126%
6	2.640	238	239	242	rVB2	551494	378150	1.83%	0.106%
7	2.672	242	245	246	rBV3	475042	420024	2.03%	0.118%
8	2.698	248	250	252	rVB2	866356	535132	2.59%	0.150%
9	2.768	261	263	265	rVB2	1416019	720995	3.49%	0.202%
10	2.784	265	266	268	rBV2	567186	406335	1.97%	0.114%
11	2.805	268	270	273	rVB3	892778	628081	3.04%	0.176%
12	2.832	273	275	278	rBV3	1344202	1350502	6.54%	0.379%
13	2.859	278	280	284	rBV4	1139233	953836	4.62%	0.268%
14	2.971	297	301	302	rBV2	755220	755363	3.66%	0.212%
15	3.014	305	309	311	rBV2	4081779	4541011	21.99%	1.275%
16	3.078	317	321	323	rBV4	438568	511999	2.48%	0.144%
17	3.099	323	325	329	rVV4	1260600	1752642	8.49%	0.492%
18	3.131	329	331	334	rVV4	1010253	865357	4.19%	0.243%
19	3.158	334	336	338	rVV2	2868659	1746089	8.45%	0.490%
20	3.174	338	339	342	rVB2	1100515	524330	2.54%	0.147%
21	3.217	343	347	348	rBV3	1497921	924474	4.48%	0.260%
22	3.233	348	350	351	rVV2	1665136	934086	4.52%	0.262%
23	3.249	351	353	355	rVV2	1364363	1224427	5.93%	0.344%
24	3.275	355	358	363	rVV4	2049553	2223509	10.77%	0.624%
25	3.318	365	366	370	rVB3	850900	526072	2.55%	0.148%
26	3.361	370	374	376	rBV4	1591679	1899620	9.20%	0.533%
27	3.382	376	378	380	rVB2	1947010	1214649	5.88%	0.341%
28	3.409	381	383	384	rVB	878882	385945	1.87%	0.108%
29	3.425	384	386	390	rVB2	3608522	2594496	12.56%	0.728%
30	3.462	390	393	394	rBV2	896979	1045173	5.06%	0.293%
31	3.478	394	396	399	rVV2	2801891	2249999	10.89%	0.632%
32	3.505	399	401	403	rVV2	671759	476183	2.31%	0.134%
33	3.526	403	405	409	rVB5	907997	761620	3.69%	0.214%
34	3.559	409	411	413	rBV2	1344097	906267	4.39%	0.254%
35	3.607	418	420	423	rBV2	3346027	2344357	11.35%	0.658%
36	3.633	423	425	426	rBV	3472937	1516802	7.34%	0.426%
37	3.649	426	428	431	rVB2	5734190	4268465	20.67%	1.198%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	3.676	431	433	436	rBV4	1573719	1495388	7.24%	0.420%
39	3.703	436	438	441	rBV4	2457864	2190881	10.61%	0.615%
40	3.745	443	446	449	rBV	2904374	2103666	10.19%	0.591%
41	3.815	453	459	461	rBV4	3201336	4669451	22.61%	1.311%
42	3.836	461	463	464	rVB2	1479492	842510	4.08%	0.237%
43	3.852	464	466	469	rVB2	3766028	3431045	16.61%	0.963%
44	3.879	469	471	473	rBV3	2457990	1406543	6.81%	0.395%
45	3.906	473	476	477	rBV2	6416352	3050695	14.77%	0.856%
46	3.922	477	479	481	rVB	6881117	3133014	15.17%	0.880%
47	3.943	481	483	484	rBV2	909275	606757	2.94%	0.170%
48	3.975	484	489	491	rBV2	5503982	5971159	28.91%	1.676%
49	4.007	492	495	496	rBV	3491560	2184819	10.58%	0.613%
50	4.077	503	508	510	rBV	8481590	5974526	28.93%	1.677%
51	4.119	514	516	519	rBV3	6130094	4815977	23.32%	1.352%
52	4.141	519	520	521	rBV	3191233	1312675	6.36%	0.369%
53	4.184	526	528	530	rBV	1613954	1280745	6.20%	0.360%
54	4.210	530	533	535	rVB3	10614680	7053747	34.15%	1.980%
55	4.232	535	537	539	rBV3	1090366	788458	3.82%	0.221%
56	4.258	539	542	545	rVB2	3605106	3273695	15.85%	0.919%
57	4.301	545	550	552	rBV3	3265586	3914914	18.95%	1.099%
58	4.349	557	559	562	rBV3	1499772	1441577	6.98%	0.405%
59	4.376	562	564	567	rBV3	6528341	5001822	24.22%	1.404%
60	4.451	572	578	581	rVB6	6751818	7690959	37.24%	2.159%
61	4.515	586	590	592	rVB2	3848464	3557833	17.23%	0.999%
62	4.568	597	600	601	rBV	3546676	2135908	10.34%	0.600%
63	4.579	601	602	605	rVB2	1511654	1165903	5.64%	0.327%
64	4.606	605	607	608	rBV	1849139	760530	3.68%	0.214%
65	4.627	608	611	612	rBV2	4761660	3428378	16.60%	0.962%
66	4.696	622	624	628	rVB3	3936755	4587173	22.21%	1.288%
67	4.750	632	634	636	rVV2	5375243	3892738	18.85%	1.093%
68	4.798	640	643	645	rBV	3898981	3794153	18.37%	1.065%
69	4.841	648	651	653	rBV	7312964	5994106	29.02%	1.683%
70	4.862	653	655	657	rVB	11190836	6927271	33.54%	1.945%
71	4.883	657	659	661	rBV2	5010081	3260251	15.79%	0.915%
72	4.915	662	665	670	rVB2	9502907	12970710	62.80%	3.641%
73	4.958	671	673	676	rBV2	1996214	2088418	10.11%	0.586%
74	4.985	676	678	680	rBV	3263565	2221935	10.76%	0.624%
75	5.012	680	683	684	rBV	2904052	1999946	9.68%	0.561%
76	5.033	684	687	689	rBV	5138117	5488045	26.57%	1.541%
77	5.070	692	694	696	rBV	2596201	1595778	7.73%	0.448%
78	5.092	696	698	701	rBV2	7592827	7266248	35.18%	2.040%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

79	5.124	701	704	705	rBV	6791263	5900313	28.57%	1.656%
80	5.172	708	713	715	rBV	15052347	18020860	87.25%	5.059%
81	5.220	720	722	723	rVV	8202150	6506384	31.50%	1.827%
82	5.241	723	726	728	rVV2	9222856	9564378	46.31%	2.685%
83	5.273	728	732	736	rVV5	7809019	14206801	68.78%	3.988%
84	5.305	736	738	739	rVV	4576013	3760111	18.21%	1.056%
85	5.321	739	741	744	rVV3	6132767	6512520	31.53%	1.828%
86	5.364	744	749	752	rVV3	9367627	14549102	70.44%	4.085%
87	5.407	753	757	760	rVV3	14910260	20654065	100.00%	5.798%
88	5.439	760	763	765	rVV	15438468	16282001	78.83%	4.571%
89	5.460	765	767	769	rVV2	10371874	9154900	44.32%	2.570%
90	5.487	769	772	774	rVV3	8085673	10068370	48.75%	2.827%
91	5.514	774	777	781	rVB3	3687513	4927777	23.86%	1.383%
92	5.599	791	793	798	rBV4	1573294	1878540	9.10%	0.527%
93	5.695	809	811	815	rBV4	1580550	2025240	9.81%	0.569%
94	5.754	820	822	827	rVB2	3503765	3739980	18.11%	1.050%
95	5.840	835	838	841	rBV	4342248	4810423	23.29%	1.350%
96	6.149	894	896	898	rBV	1713501	1165392	5.64%	0.327%
97	6.176	898	901	903	rBV2	3135913	2281129	11.04%	0.640%
98	6.347	929	933	934	rBV2	2496610	2922692	14.15%	0.821%
99	6.427	945	948	951	rVB2	2277258	2213543	10.72%	0.621%
100	6.657	988	991	995	rBV2	2490129	3103825	15.03%	0.871%

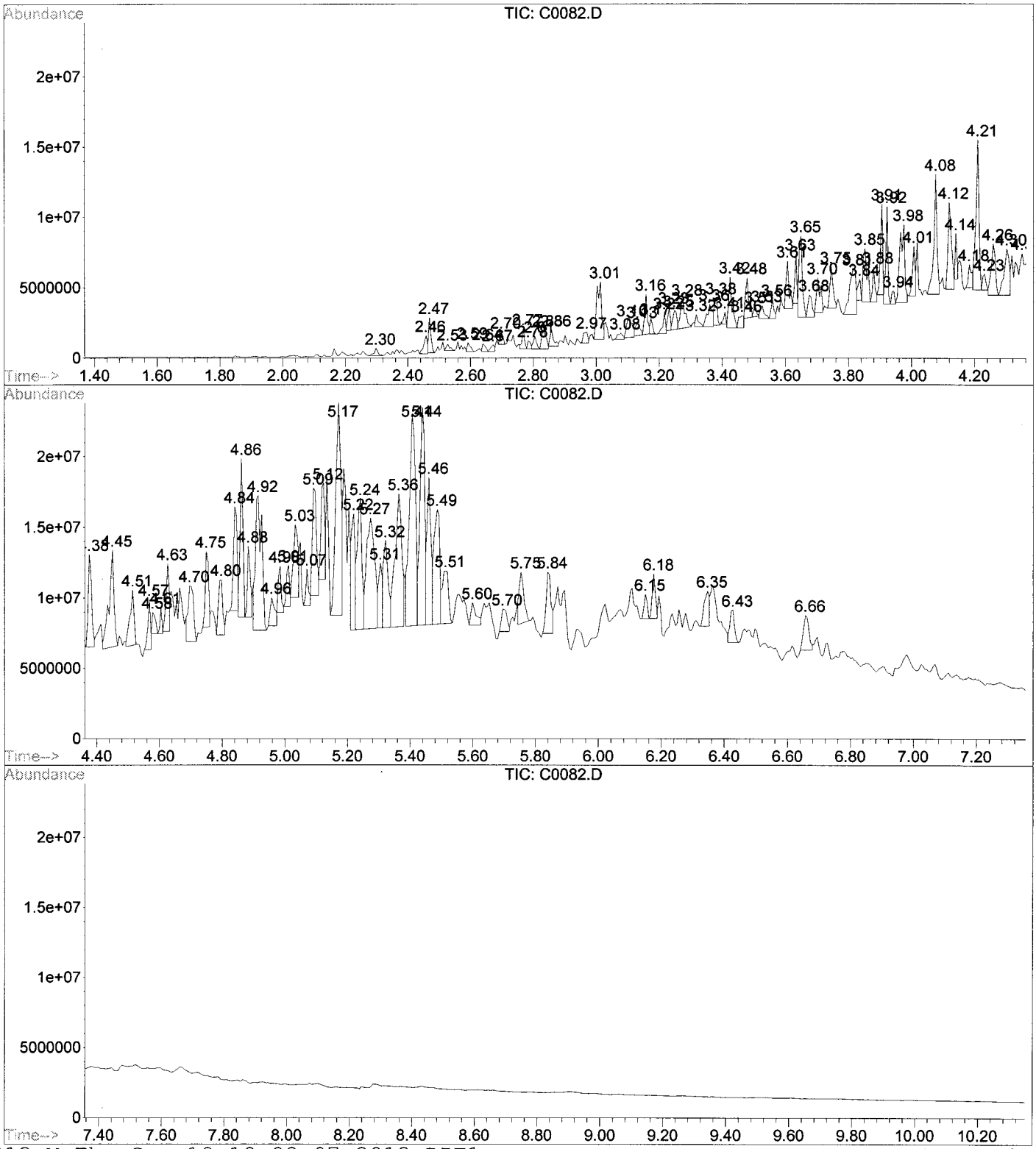
Sum of corrected areas: 356199838

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

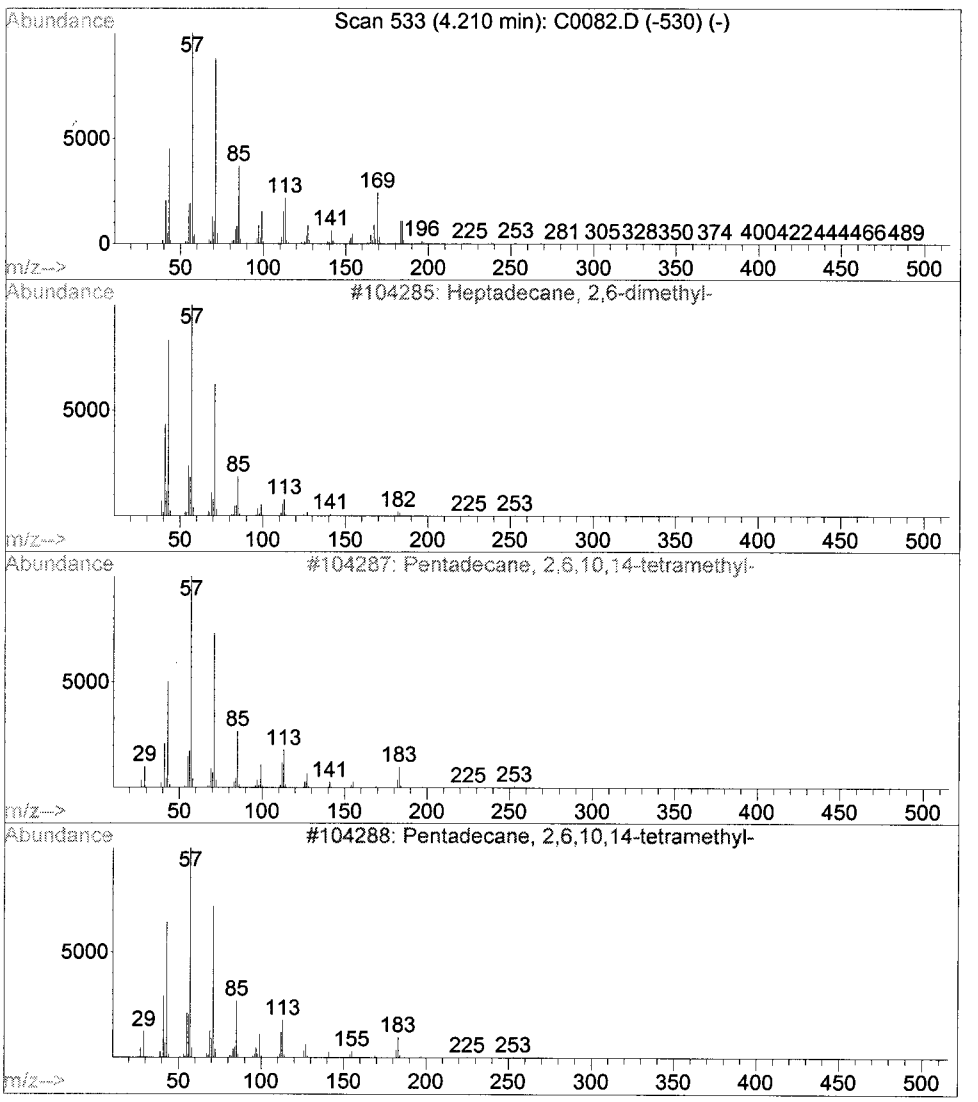
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

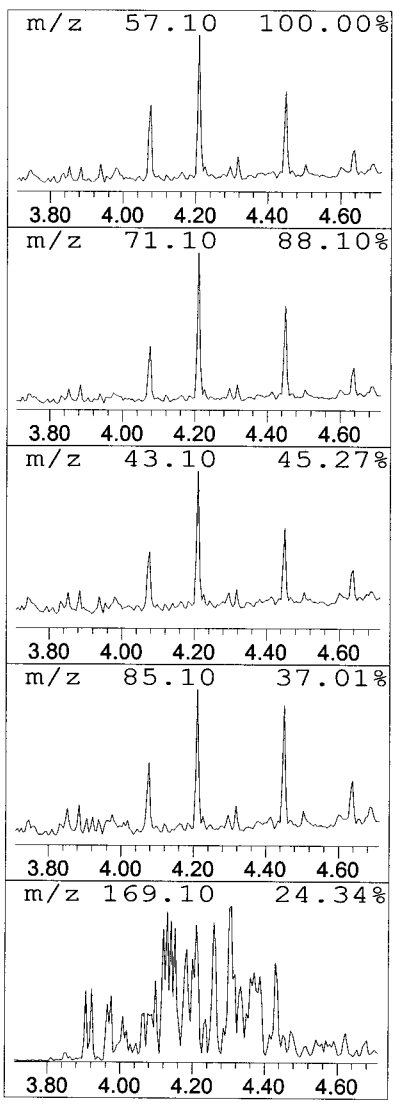
****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.21	132.10 UG	7053750	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane, 2,6-dimethyl-	268	C19H40	054105-67-8	95
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	87
3	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	81
4	Pentadecane, 2,6,10-trimethyl-	254	C18H38	003892-00-0	64
5	Sulfurous acid, dodecyl 2-ethylh...	362	C20H42O3S	1000309-19-5	58





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

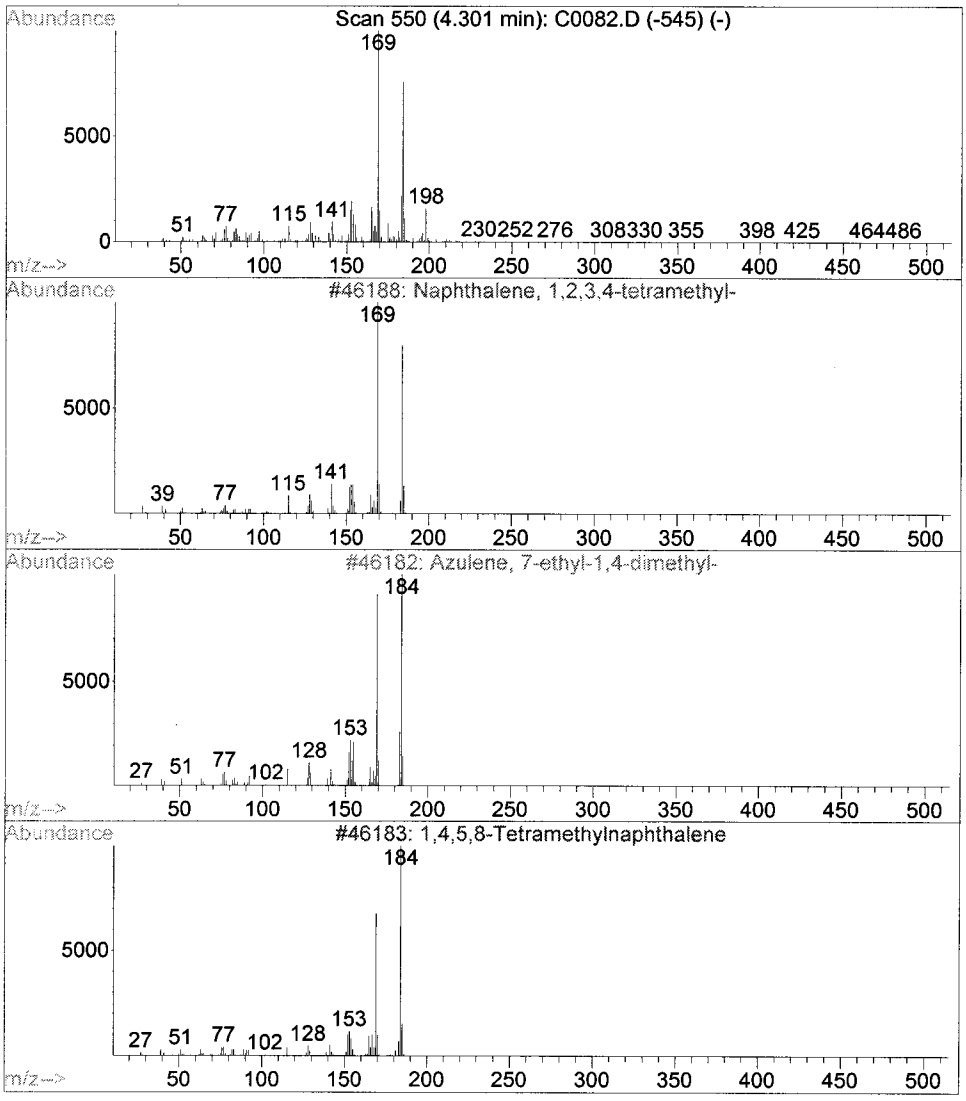
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

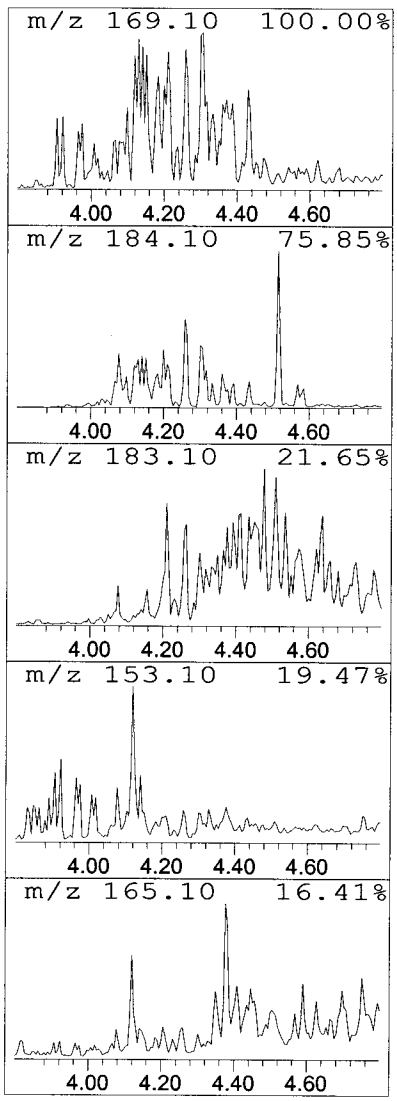
****

Peak Number 2 Unknown SV Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.30	73.32 UG	3914910	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetramethyl-	184	C14H16	003031-15-0	95
2	Azulene, 7-ethyl-1,4-dimethyl-	184	C14H16	000529-05-5	93
3	1,4,5,8-Tetramethylnaphthalene	184	C14H16	002717-39-7	91
4	Naphthalene, 1-methyl-7-(1-methy...	184	C14H16	000490-65-3	90
5	Naphthalene, 1-methyl-7-(1-methy...	184	C14H16	000490-65-3	81





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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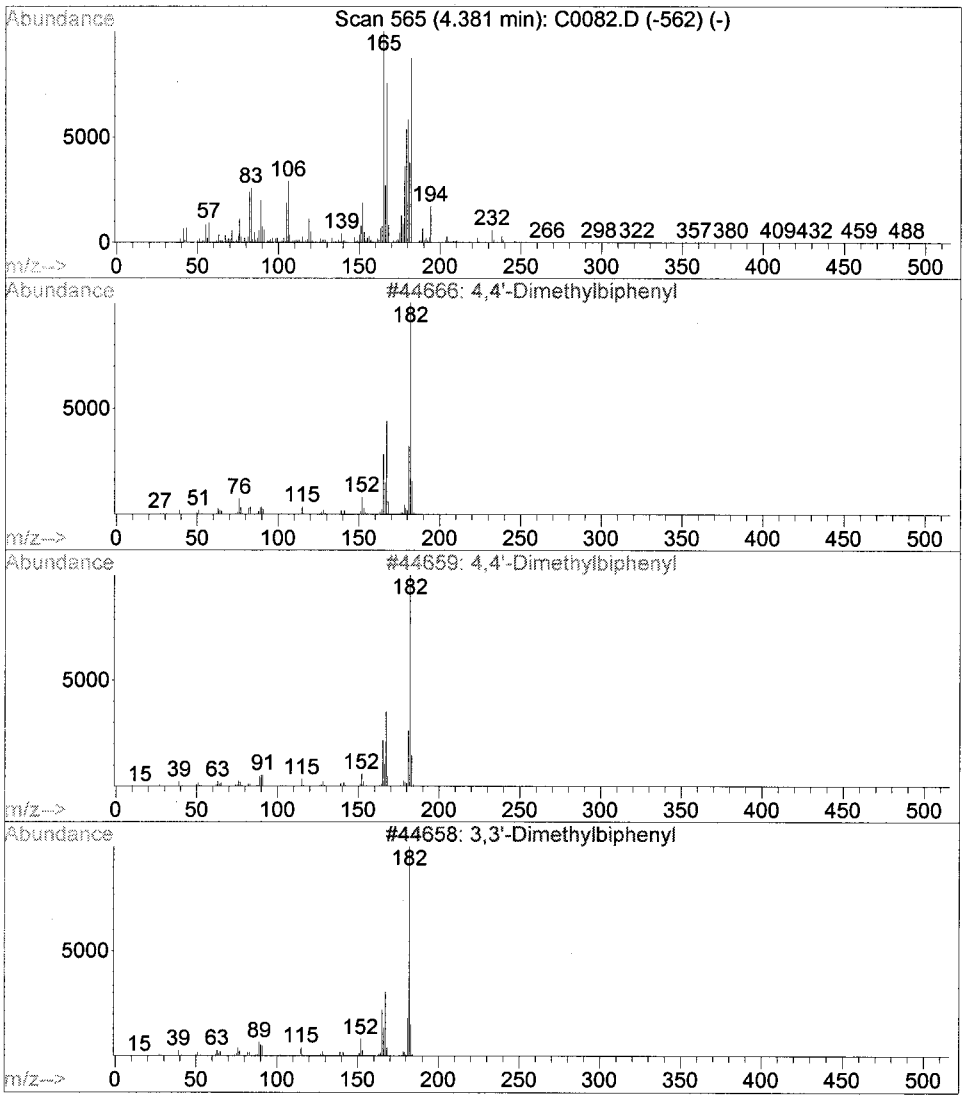
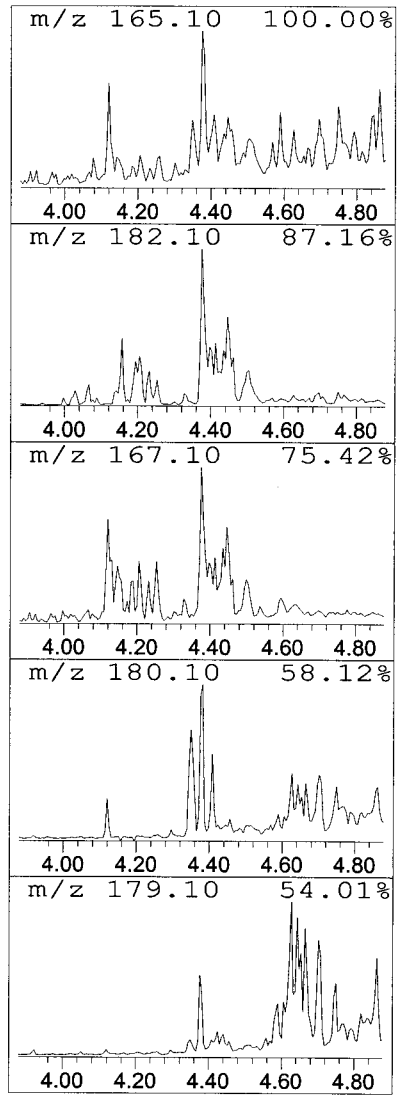
Peak Number 3 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.38	93.67 UG	5001820	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4,4'-Dimethylbiphenyl	182	C14H14	000613-33-2	64
2	4,4'-Dimethylbiphenyl	182	C14H14	000613-33-2	58
3	3,3'-Dimethylbiphenyl	182	C14H14	000612-75-9	52
4	4,4'-Dimethylbiphenyl	182	C14H14	000613-33-2	52
5	1,1'-Biphenyl, 2,4'-dimethyl-	182	C14H14	000611-61-0	49





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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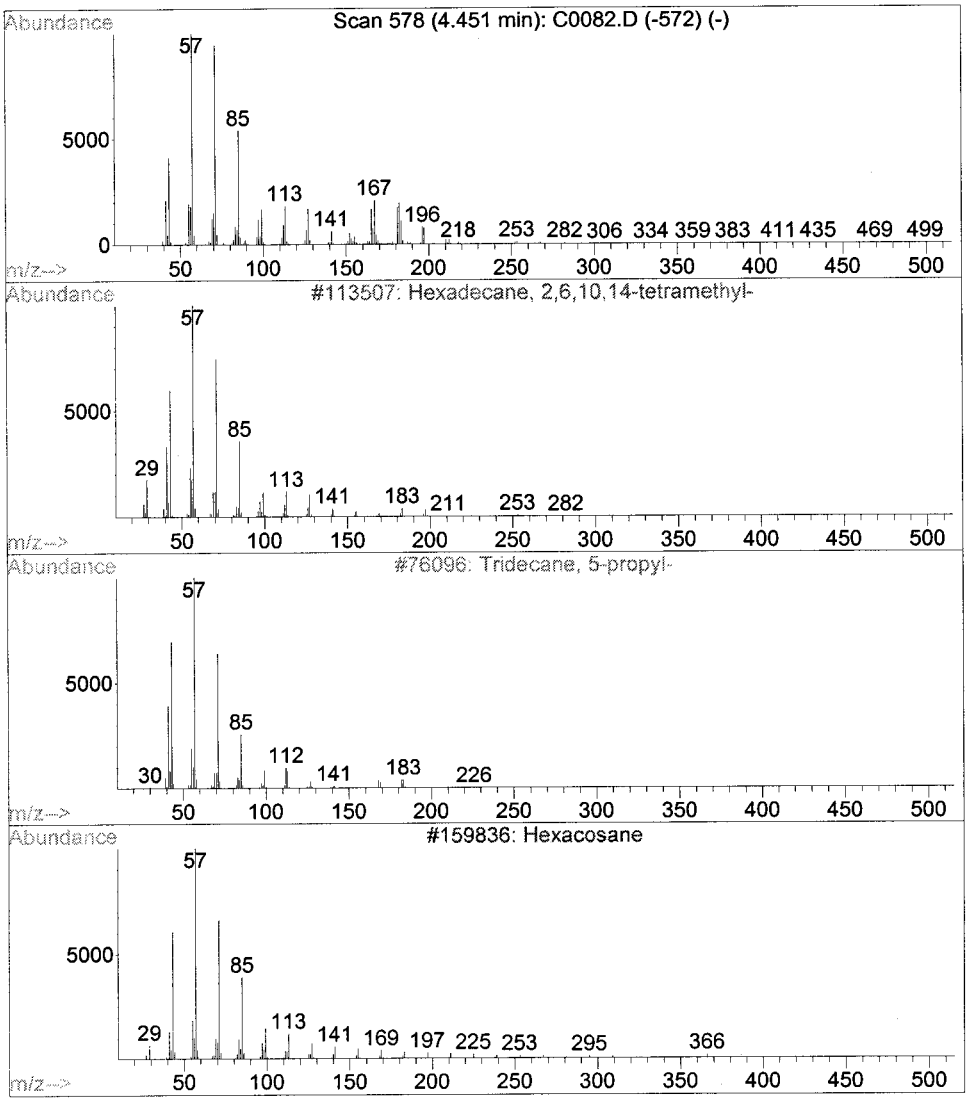
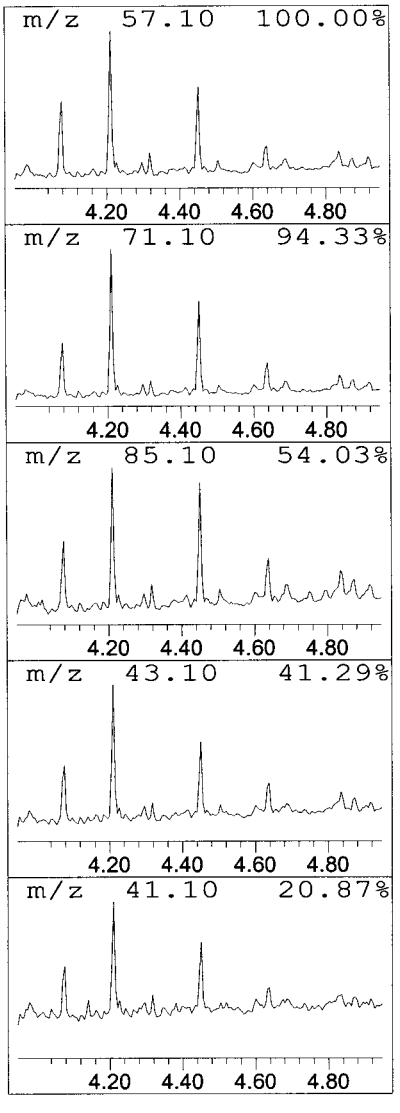
Peak Number 4 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.45	144.03 UG	7690960	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	86
2	Tridecane, 5-propyl-	226	C16H34	055045-11-9	70
3	Hexacosane	366	C26H54	000630-01-3	70
4	Octadecane, 2,6-dimethyl-	282	C20H42	075163-97-2	70
5	Tetradecane, 3-methyl-	212	C15H32	018435-22-8	68





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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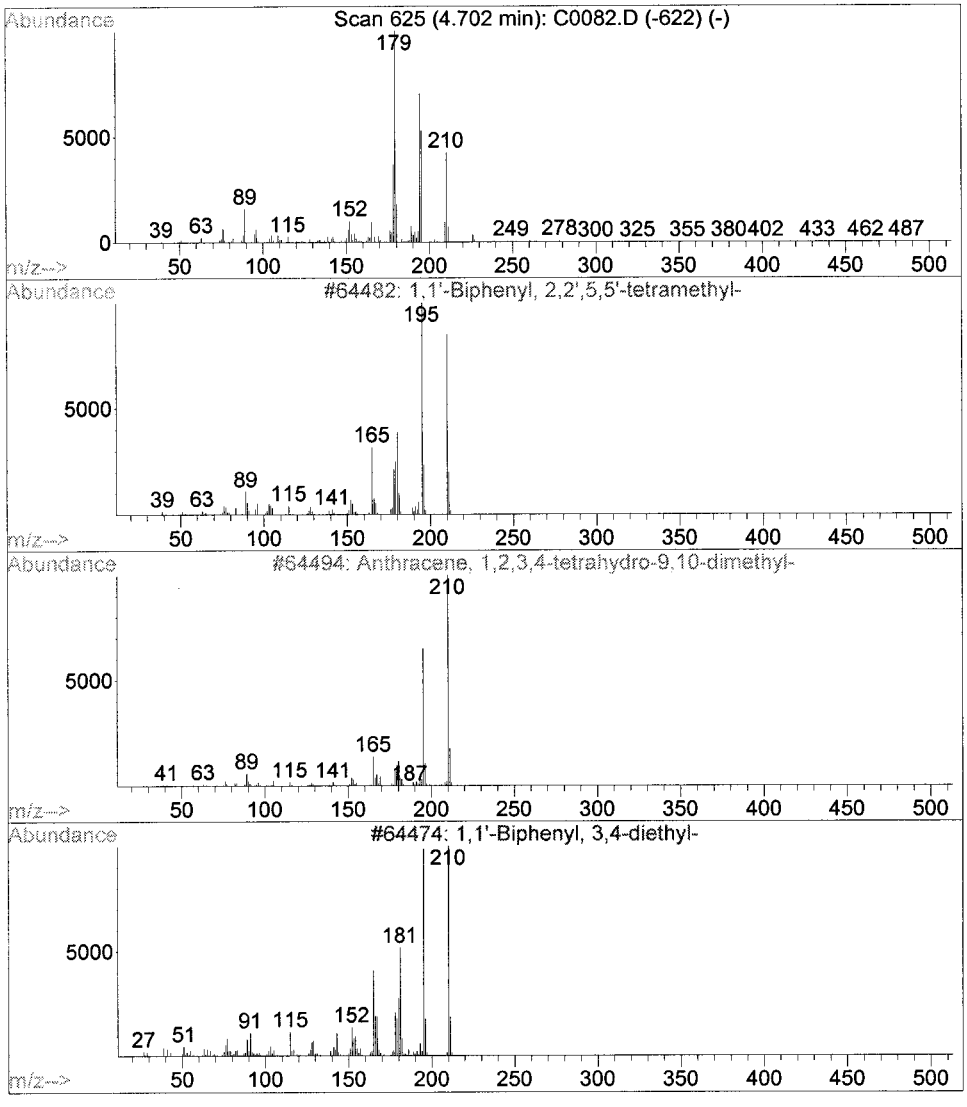
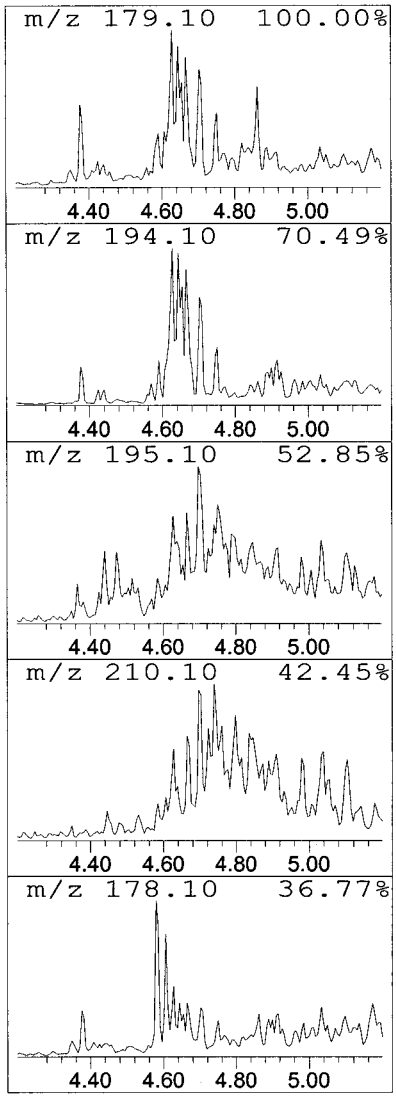
Peak Number 5 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.70	85.91 UG	4587170	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1'-Biphenyl, 2,2',5,5'-tetrame...	210	C16H18	003075-84-1	53
2	Anthracene, 1,2,3,4-tetrahydro-9...	210	C16H18	094573-50-9	49
3	1,1'-Biphenyl, 3,4-diethyl-	210	C16H18	061141-66-0	46
4	9H-Carbazol-3-amine, 9-ethyl-	210	C14H14N2	000132-32-1	38
5	Benzene, 1-methoxy-3-(2-phenylet...	210	C15H14O	015638-11-6	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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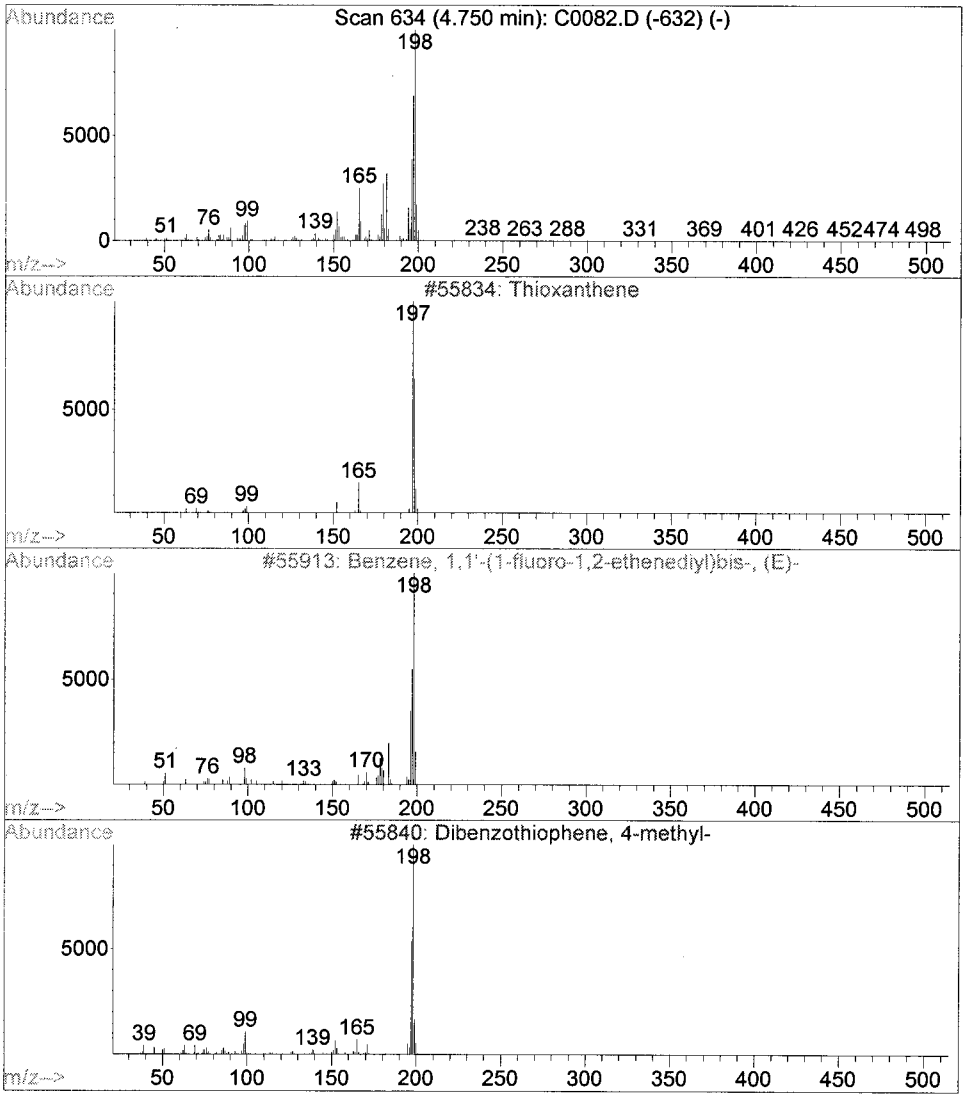
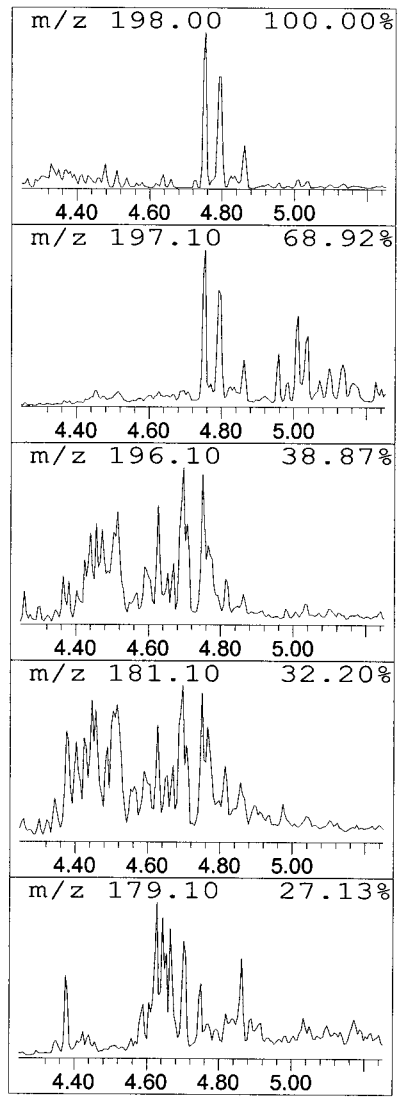
Peak Number 6 Unknown SV Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.75	72.90 UG	3892740	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thioxanthene	198	C13H10S	000261-31-4	83
2	Benzene, 1,1'-(1-fluoro-1,2-ethe...	198	C14H11F	000671-19-2	53
3	Dibenzothiophene, 4-methyl-	198	C13H10S	007372-88-5	50
4	Dibenzothiophene, 3-methyl-	198	C13H10S	016587-52-3	49
5	Benzene, 1-methoxy-4-(phenylmeth...	198	C14H14O	000834-14-0	49





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

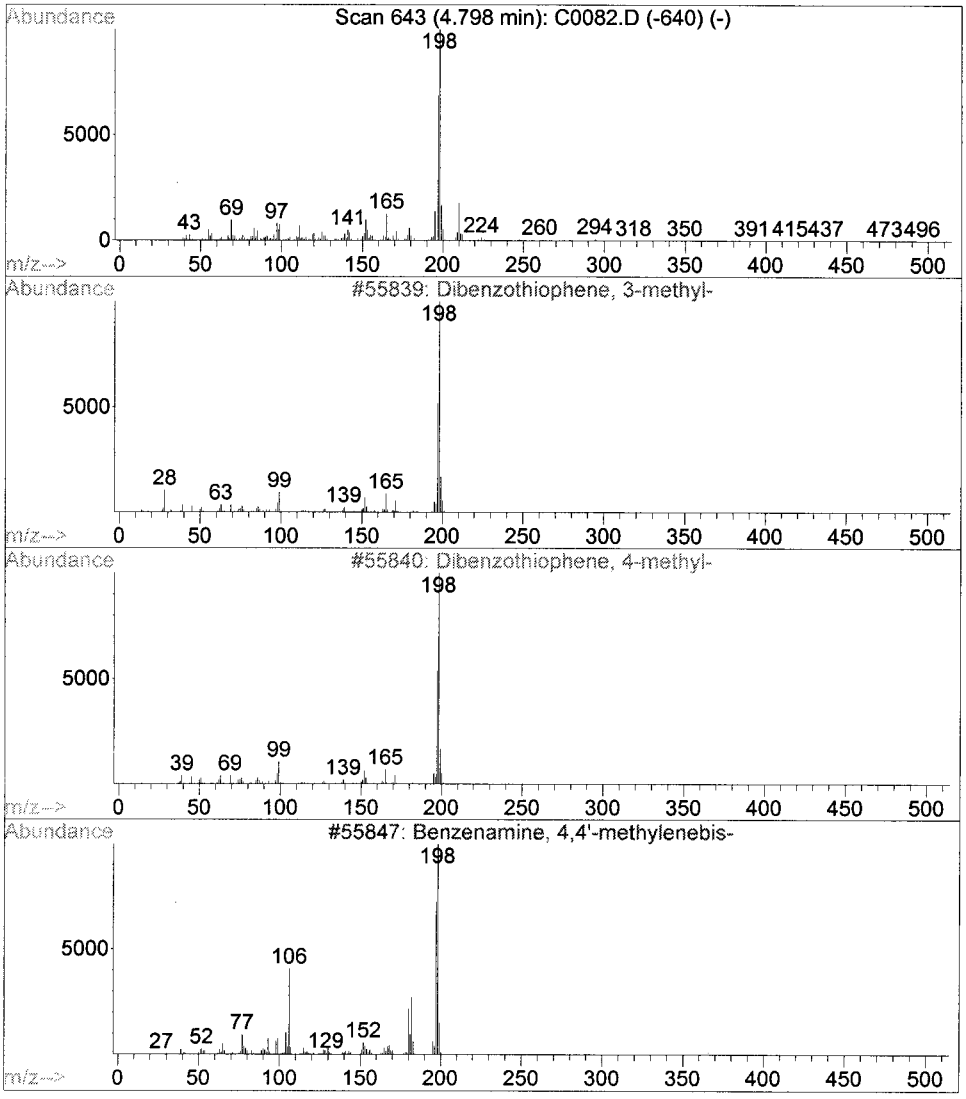
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

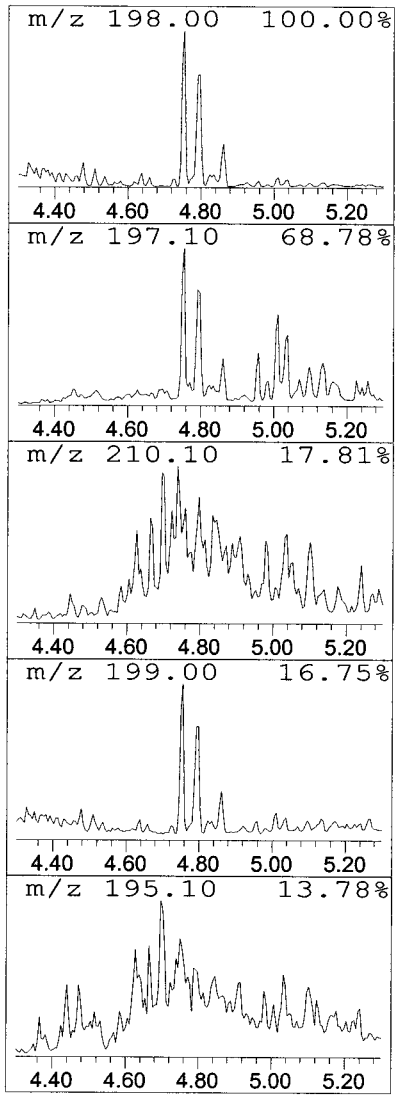
****

Peak Number 7 Unknown SV Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.80	71.05 UG	3794150	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dibenzothiophene, 3-methyl-	198	C13H10S	016587-52-3	94
2	Dibenzothiophene, 4-methyl-	198	C13H10S	007372-88-5	91
3	Benzenamine, 4,4'-methylenebis-	198	C13H14N2	000101-77-9	72
4	Benzenamine, 4,4'-methylenebis-	198	C13H14N2	000101-77-9	64
5	9-Acridinamine, 1,2,3,4-tetrahydro-	198	C13H14N2	000321-64-2	59





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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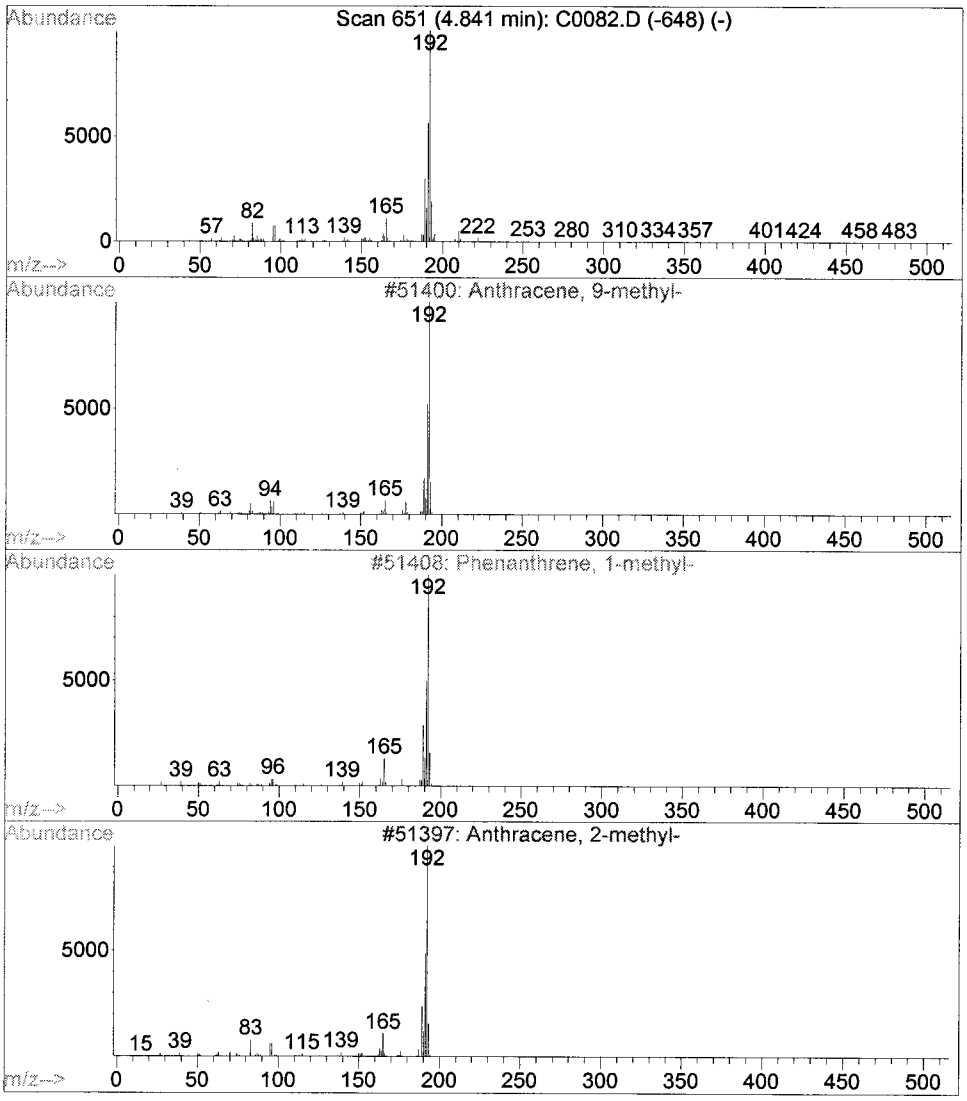
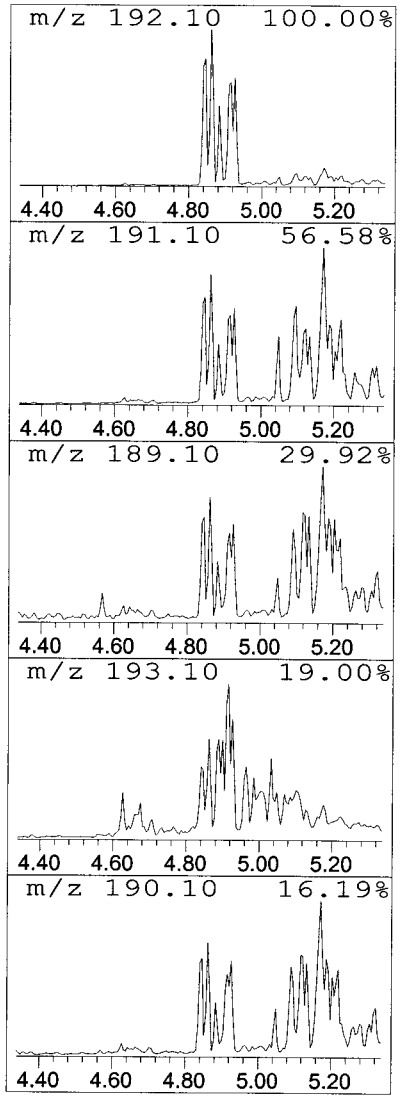
Peak Number 8 Unknown PAH Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.84	112.25 UG	5994110	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 9-methyl-	192	C15H12	000779-02-2	96
2	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	96
3	Anthracene, 2-methyl-	192	C15H12	000613-12-7	96
4	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	96
5	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

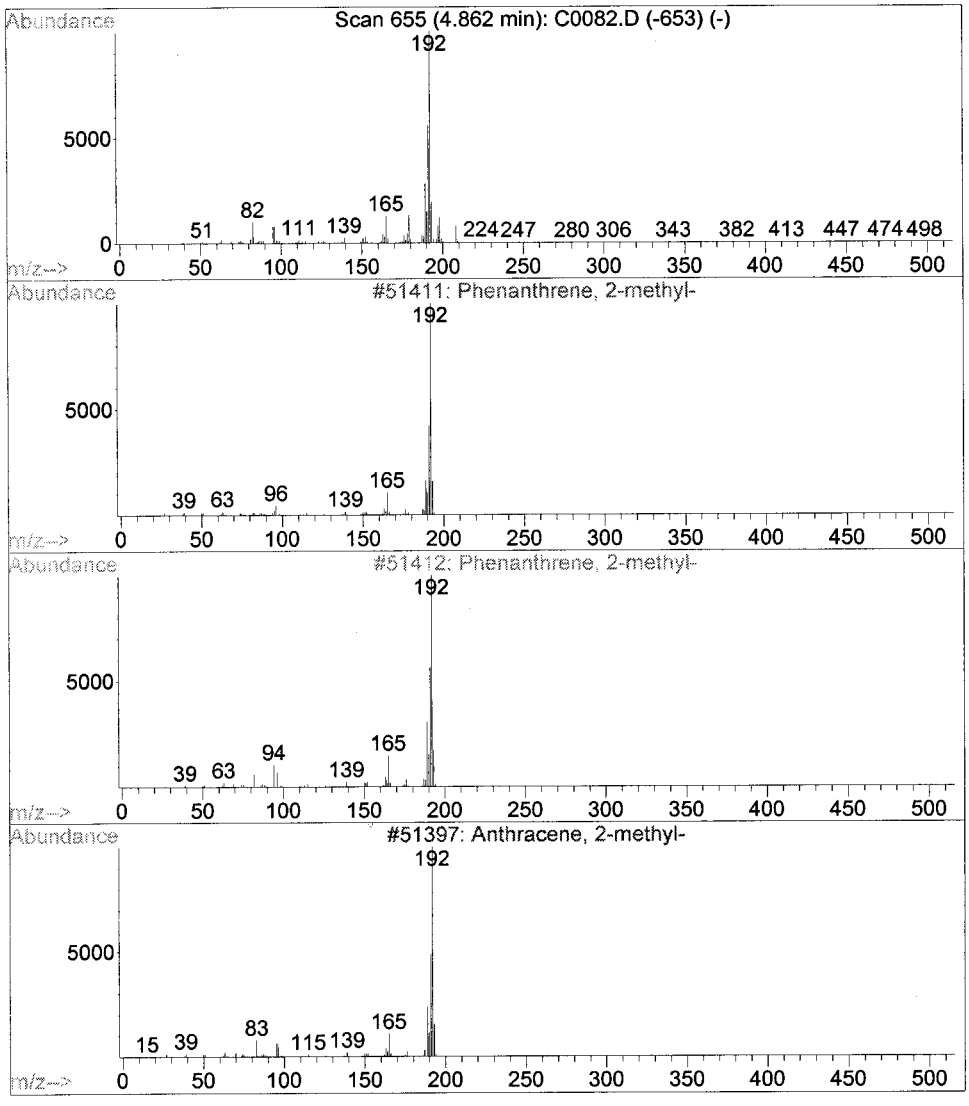
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

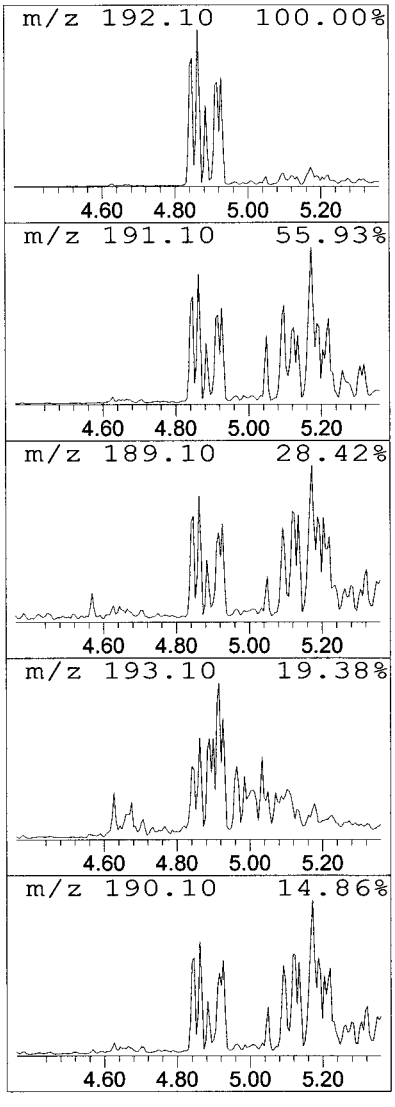
****

Peak Number 9 Unknown PAH Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.86	129.73 UG	6927270	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	97
2	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	97
3	Anthracene, 2-methyl-	192	C15H12	000613-12-7	97
4	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	96
5	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	96





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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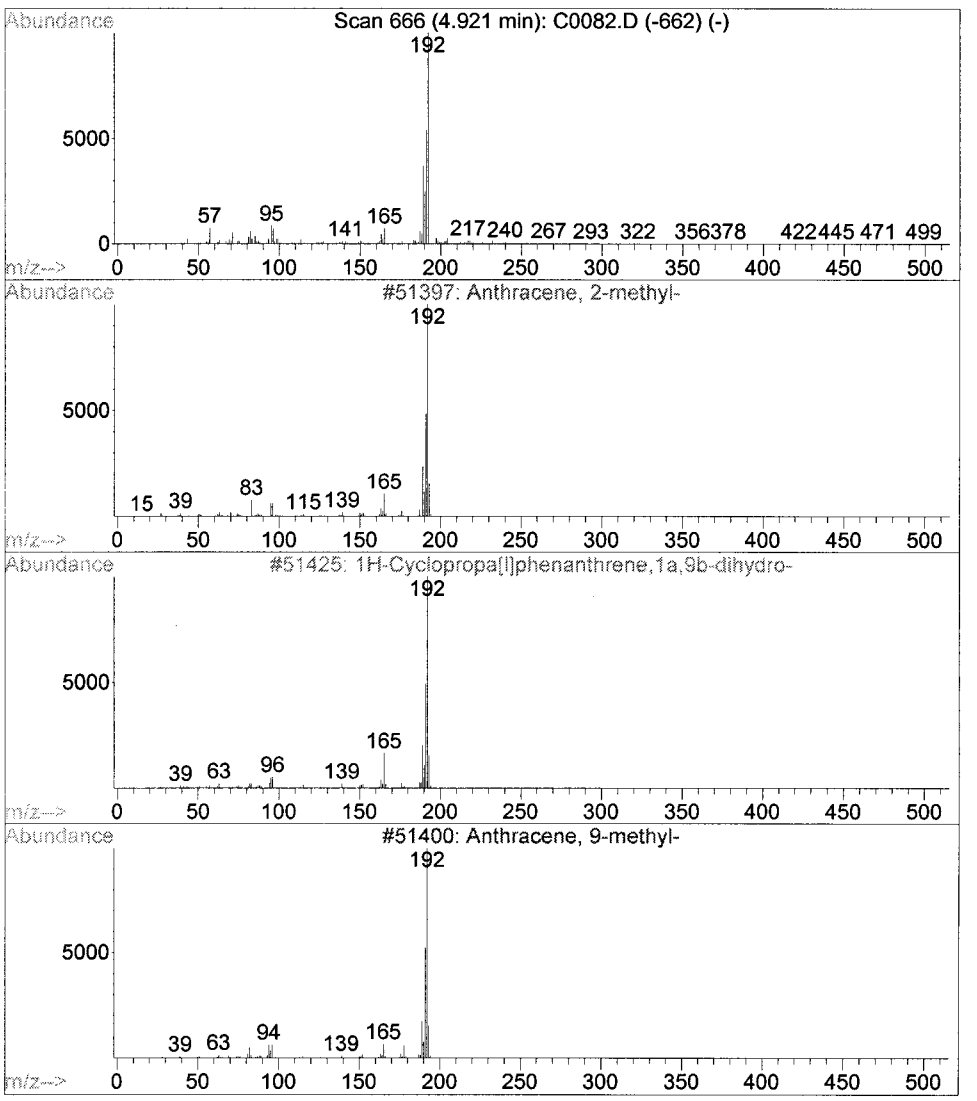
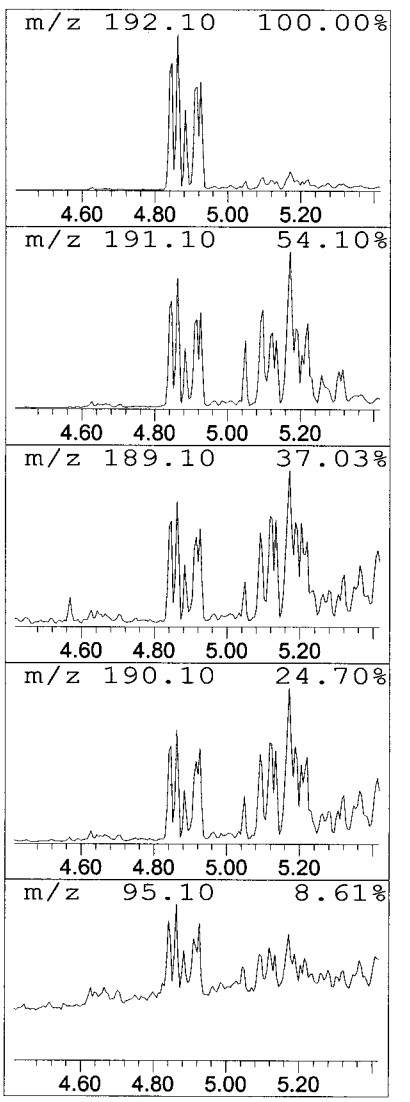
Peak Number 10 Unknown PAH Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.92	242.91 UG	12970700	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 2-methyl-	192	C15H12	000613-12-7	95
2	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	94
3	Anthracene, 9-methyl-	192	C15H12	000779-02-2	94
4	Anthracene, 9-methyl-	192	C15H12	000779-02-2	94
5	Phenanthrene, 3-methyl-	192	C15H12	000832-71-3	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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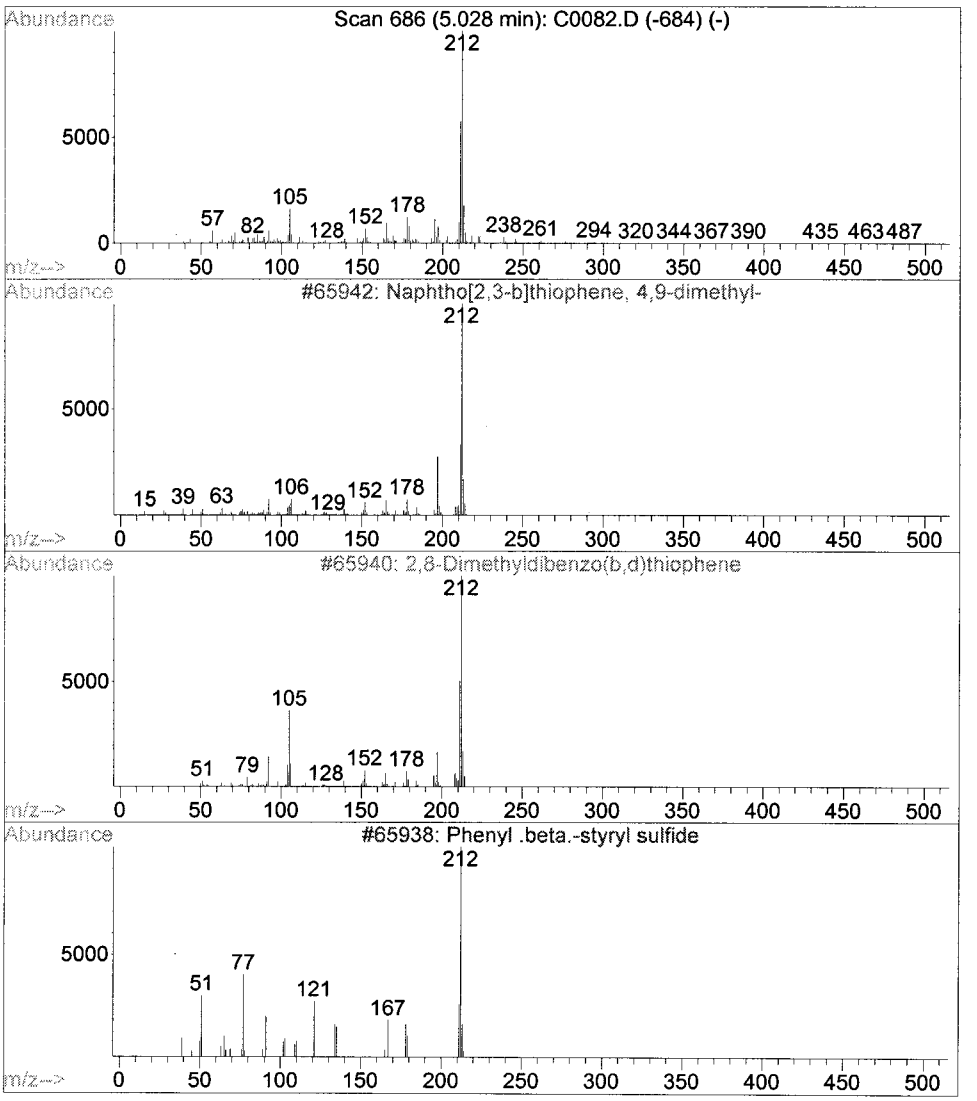
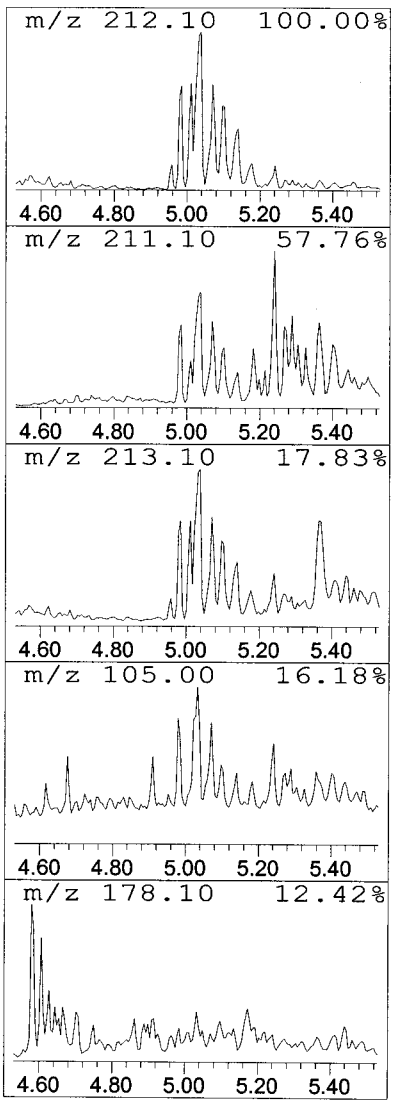
Peak Number 11 Unknown SV Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.03	102.78 UG	5488050	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphtho[2,3-b]thiophene, 4,9-dim...	212	C14H12S	016587-34-1	91
2	2,8-Dimethyldibenzo(b,d)thiophene	212	C14H12S	001207-15-4	89
3	Phenyl .beta.-styryl sulfide	212	C14H12S	016619-61-7	46
4	Harmine	212	C13H12N2O	000442-51-3	43
5	Acridin-9-amine, 1,2,3,4-tetrahy...	212	C14H16N2	005778-78-9	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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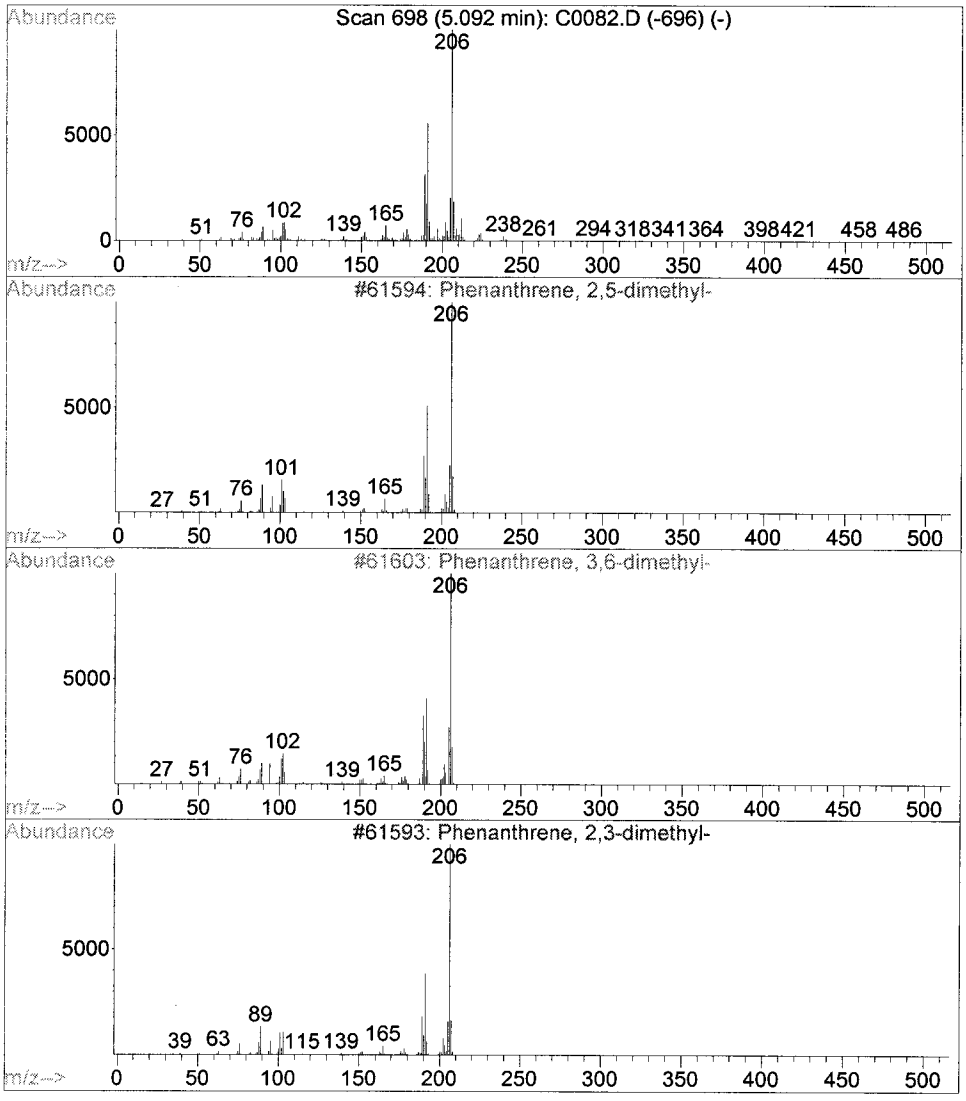
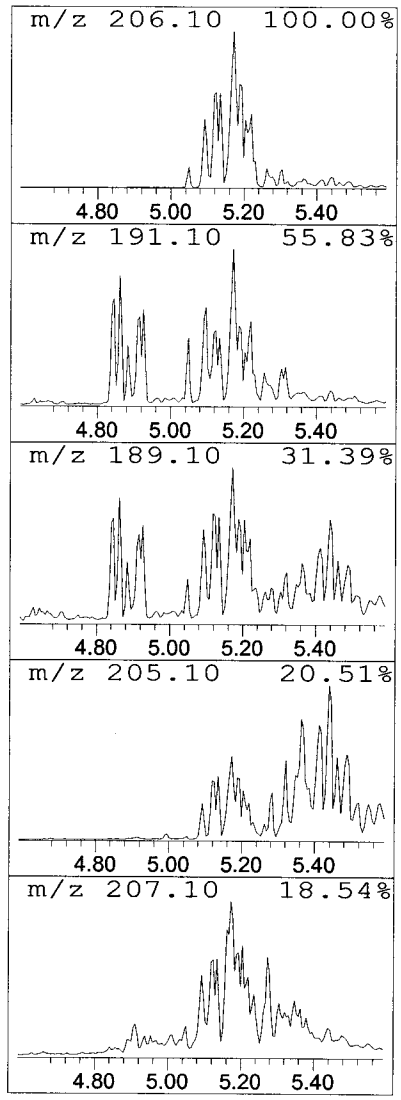
Peak Number 12 Unknown PAH Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.09	136.08 UG	7266250	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	96
2	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	95
3	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	93
4	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	92
5	9,10-Dimethylanthracene	206	C16H14	000781-43-1	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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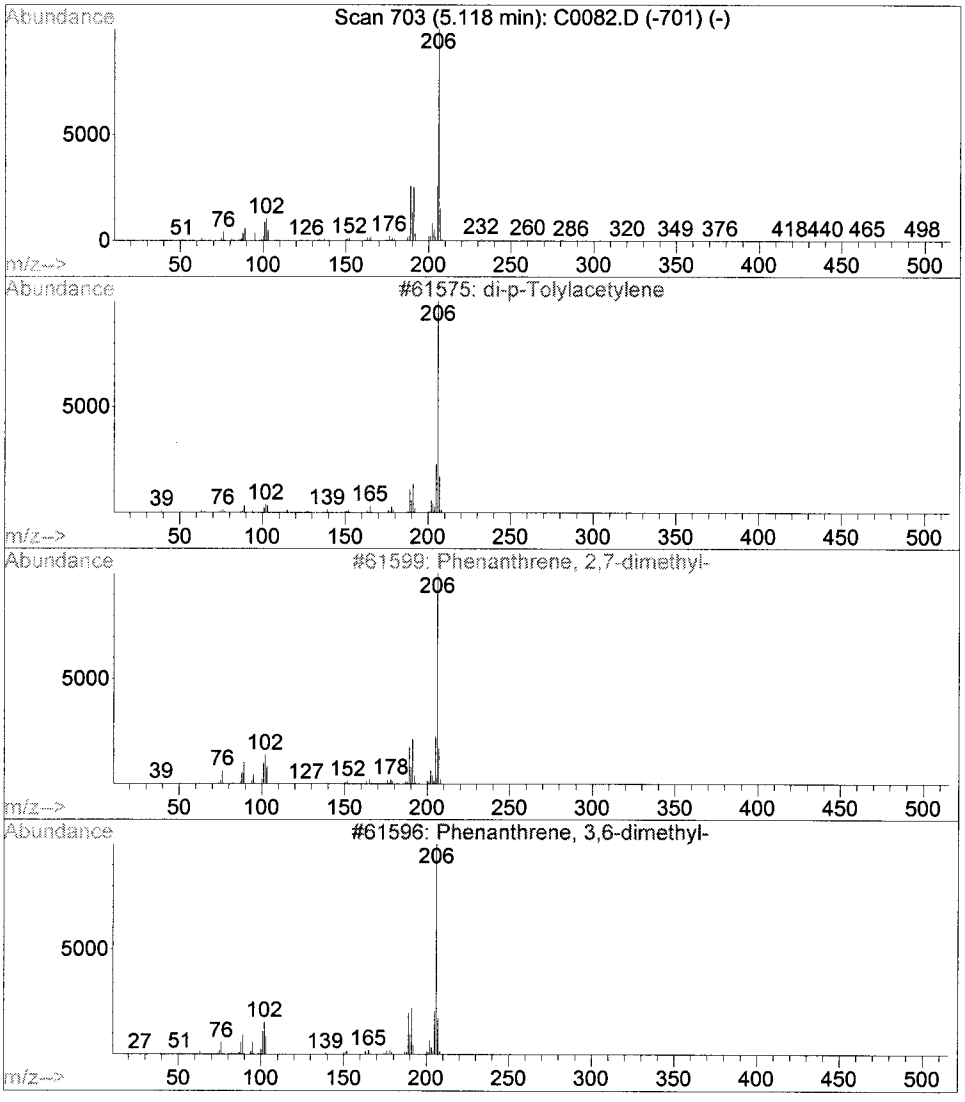
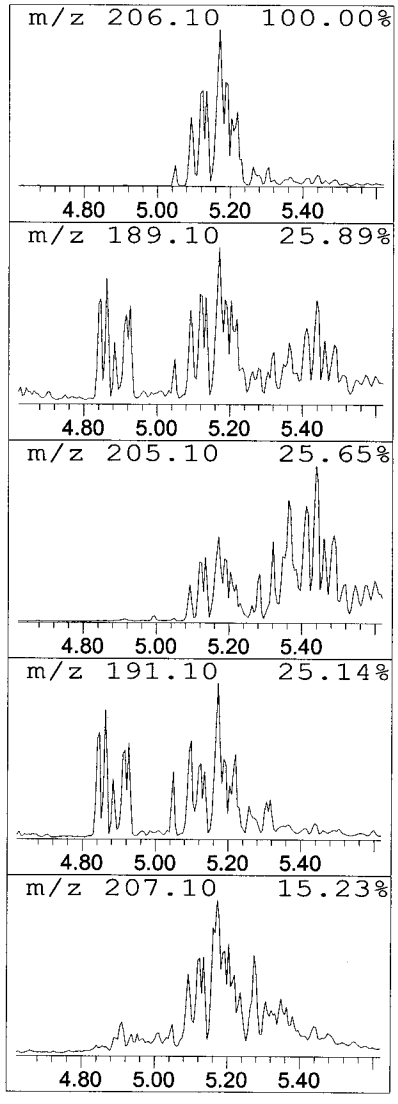
Peak Number 13 Unknown PAH Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.12	110.50 UG	5900310	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	di-p-Tolylacetylene	206	C16H14	002789-88-0	94
2	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	91
3	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	91
4	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	90
5	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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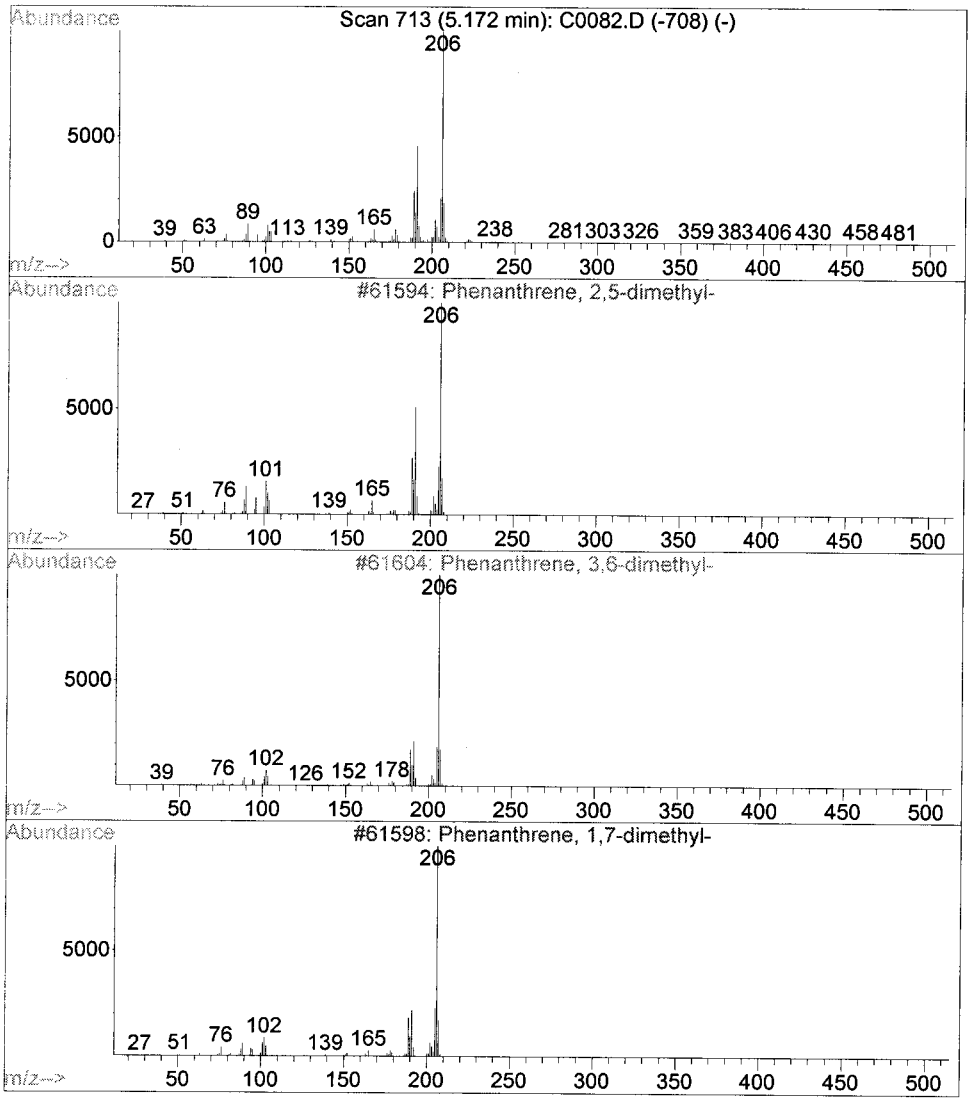
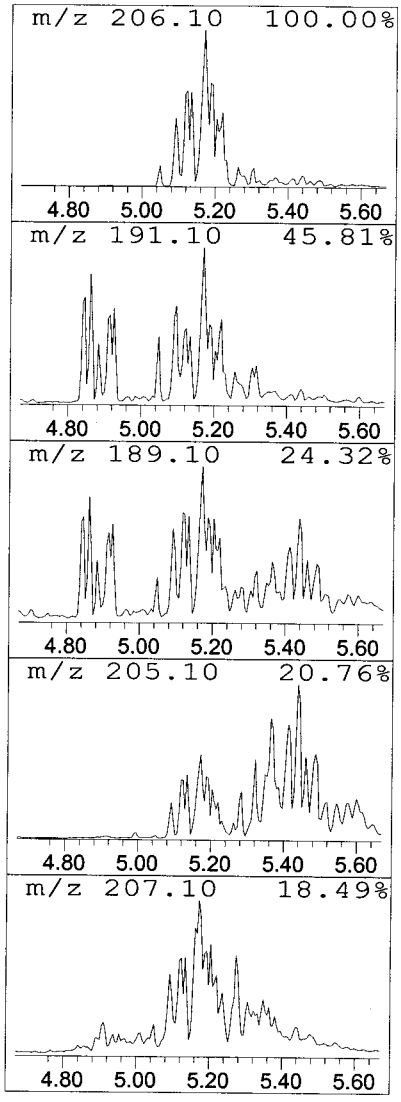
Peak Number 14 Unknown PAH Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.17	337.48 UG	18020900	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	97
2	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	93
3	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	93
4	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	93
5	9,10-Dimethylanthracene	206	C16H14	000781-43-1	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0082.D
Acq On : 18 Sep 2013 21:31
Operator : EDM
Sample : AOC-2-4/,E13-09135-004,S,15.29g,20.4,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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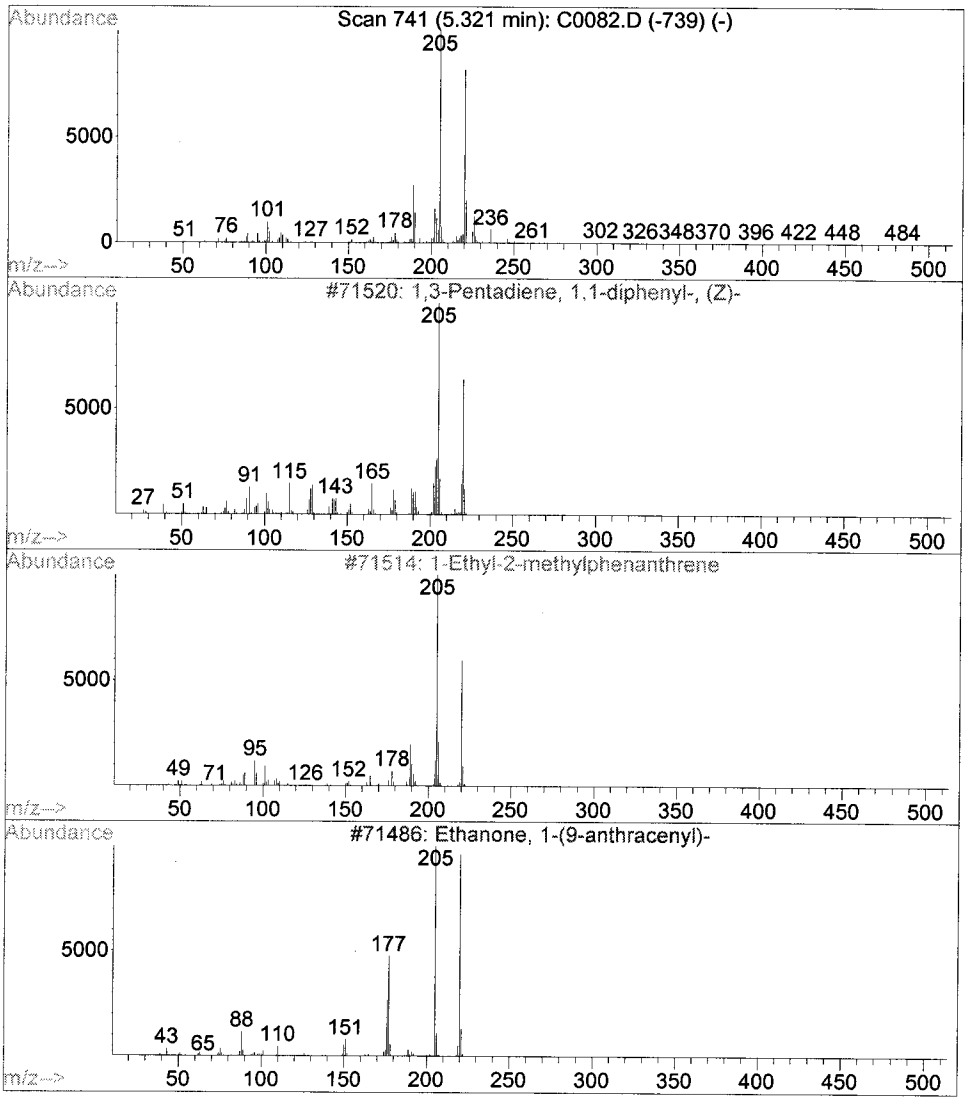
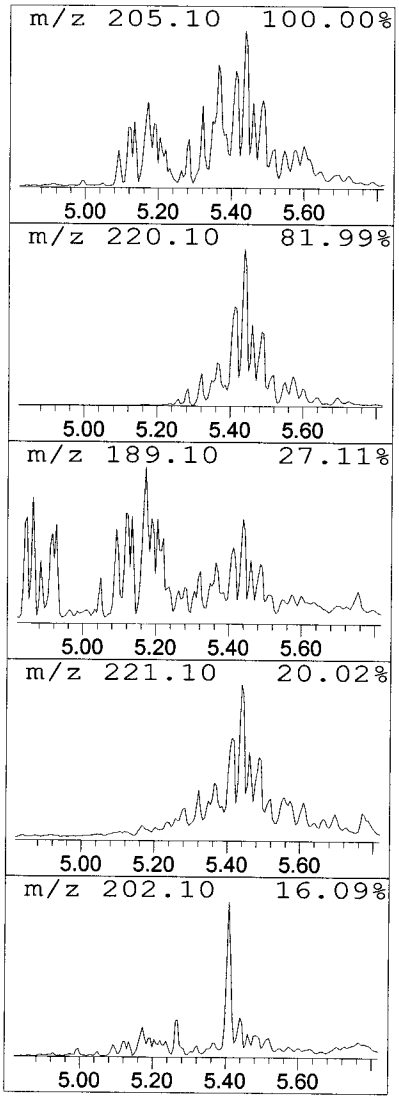
Peak Number 15 Unknown SV Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.32	121.96 UG	6512520	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3-Pentadiene, 1,1-diphenyl-, (Z)-	220	C17H16	015295-31-5	64
2	1-Ethyl-2-methylphenanthrene	220	C17H16	061983-53-7	59
3	Ethanone, 1-(9-anthracenyl)-	220	C16H12O	000784-04-3	53
4	3,5-Cyclohexadiene-1,2-dione, 3,...	220	C14H20O2	003383-21-9	53
5	1,3-Pentadiene, 1,1-diphenyl-, (Z)-	220	C17H16	015295-31-5	50





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0083.D
Acq On : 18 Sep 2013 21:47
Operator : EDM
Sample : AOC-4/7.,E13-09135-005,S,15.08g,9.40,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Sep 19 09:58:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	219005	40.00	UG	0.00
23) Naphthalene-d8	3.02	136	910228	40.00	UG	0.00
43) Acenaphthene-d10	3.86	164	540019	40.00	UG	0.00
66) Phenanthrene-d10	4.65	188	863844	40.00	UG	0.00
82) Chrysene-d12	6.45	240	589653	40.00	UG	0.02
92) Perylene-d12	7.81	264	273713	40.00	UG	0.03

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.70	82	235725	32.00	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 64.00%			
47) 2-Fluorobiphenyl	3.50	172	596300	32.66	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 65.32%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.62	244	764674	48.92	UG	0.02
Spiked Amount 50.000	Range 15 - 122		Recovery = 97.84%			

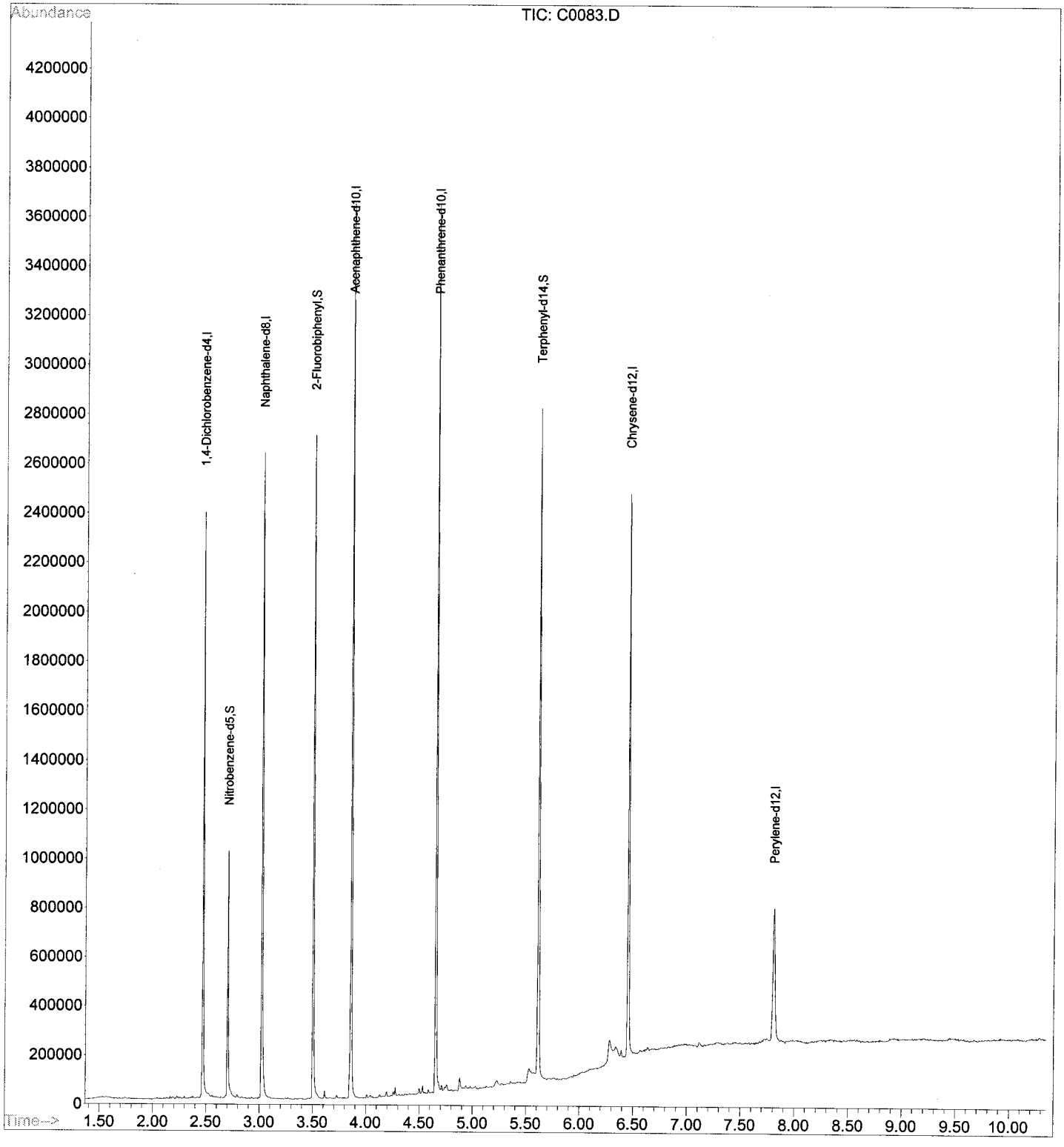
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0083.D
Acq On : 18 Sep 2013 21:47
Operator : EDM
Sample : AOC-4/7.,E13-09135-005,S,15.08g,9.40,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Sep 19 09:58:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0083.D
Acq On : 18 Sep 2013 21:47
Operator : EDM
Sample : AOC-4/7.,E13-09135-005,S,15.08g,9.40,0.5
Misc : 130918-02,09/18/13,09/17/13,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2213.M Thu Sep 19 09:59:08 2013 RPT1

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS130918-02
Client ID: .
Date Received: NA
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0060.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.028
Benzaldehyde	ND		0.033	0.020
Phenol	ND		0.033	0.020
Aniline	ND		0.033	0.026
Bis(2-chloroethyl) ether	ND		0.033	0.023
2-Chlorophenol	ND		0.033	0.020
1,3-Dichlorobenzene	ND		0.033	0.020
1,4-Dichlorobenzene	ND		0.033	0.020
Benzyl alcohol	ND		0.033	0.021
1,2-Dichlorobenzene	ND		0.033	0.020
2-Methylphenol	ND		0.033	0.027
Bis(2-chloroisopropyl) ether	ND		0.033	0.020
4-Methylphenol **	ND		0.033	0.020
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.020
3-Methylphenol	ND		0.033	0.020
Hexachloroethane	ND		0.033	0.020
Nitrobenzene	ND		0.033	0.033
Isophorone	ND		0.033	0.022
2-Nitrophenol	ND		0.033	0.025
2,4-Dimethylphenol	ND		0.033	0.026
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Benzoic acid	ND		0.033	0.020
2,4-Dimethylaniline	ND		0.033	0.025
2,4-Dichlorophenol	ND		0.033	0.031
1,2,4-Trichlorobenzene	ND		0.033	0.020
Naphthalene	ND		0.033	0.020
4-Chloroaniline	ND		0.033	0.031
Hexachlorobutadiene	ND		0.033	0.020
Caprolactam	ND		0.033	0.020
4-Chloro-3-methylphenol	ND		0.033	0.031
2-Methylnaphthalene	ND		0.033	0.028
Hexachlorocyclopentadiene	ND		0.033	0.022
2,4,6-Trichlorophenol	ND		0.033	0.020
2,4,5-Trichlorophenol	ND		0.033	0.020
1,1'-Biphenyl	ND		0.033	0.020
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.020

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS130918-02
Client ID: .
Date Received: NA
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0060.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.020
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.028
Acenaphthene	ND		0.033	0.027
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.025
2,4-Dinitrotoluene	ND		0.033	0.022
Dibenzofuran	ND		0.033	0.020
Diethyl phthalate	ND		0.033	0.025
Fluorene	ND		0.033	0.020
4-Chlorophenyl phenyl ether	ND		0.033	0.020
4-Nitroaniline	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.020
2,3,4,6-Tetrachlorophenol	ND		0.033	0.031
4,6-Dinitro-2-methylphenol	ND		0.033	0.026
N-Nitrosodiphenylamine	ND		0.033	0.020
1,2-Diphenylhydrazine	ND		0.033	0.026
4-Bromophenyl phenyl ether	ND		0.033	0.020
Hexachlorobenzene	ND		0.033	0.027
Atrazine	ND		0.033	0.023
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.022
Anthracene	ND		0.033	0.033
Carbazole	ND		0.033	0.020
Di-n-butyl phthalate	ND		0.033	0.030
Fluoranthene	ND		0.033	0.020
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.025
3,3'-Dimethylbenzidine	ND		0.033	0.020
Butyl benzyl phthalate	ND		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	ND		0.033	0.032
Chrysene	ND		0.033	0.023
Bis(2-ethylhexyl) phthalate	ND		0.033	0.020
Di-n-octyl phthalate	ND		0.033	0.030
Benzo[b]fluoranthene	ND		0.033	0.020
Benzo[k]fluoranthene	ND		0.033	0.031
Benzo[a]pyrene	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	ND		0.033	0.022
Dibenz[a,h]anthracene	ND		0.033	0.024
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (80): 0

** - represents the total of 3+4-Methylphenol
D --- Dilution Performed
B --- Compound detected in Blank
J --- Value Less than RL & great than MDL
C --- Common laboratory contamination
E --- Exceeds upper level of Calibration curve

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130918-02
Client ID: .
Date Received: NA
Date Extracted: 09/18/2013
Date Analyzed: 09/18/2013
Data file: C0060.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0060.D
Acq On : 18 Sep 2013 15:35
Operator : EDM
Sample : .,BLKS130918-02,S,15.00g,0,0.5
Misc : 130918-02,09/18/13,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 18 15:46:43 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	263106	40.00	UG	0.00
23) Naphthalene-d8	3.01	136	1034864	40.00	UG	-0.01
43) Acenaphthene-d10	3.82	164	693630	40.00	UG	-0.04
66) Phenanthrene-d10	4.57	188	1113471	40.00	UG	-0.08
82) Chrysene-d12	6.33	240	713518	40.00	UG	-0.11
92) Perylene-d12	7.67	264	329427	40.00	UG	-0.11
System Monitoring Compounds						
4) 2-Fluorophenol	1.95	112	225673m	24.64	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 24.64%#			
6) Phenol-d5	2.29	99	582492	53.82	UG	-0.01
Spiked Amount 100.000	Range 25 - 108		Recovery = 53.82%			
24) Nitrobenzene-d5	2.70	82	251994	30.09	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 60.18%			
47) 2-Fluorobiphenyl	3.48	172	861241	36.73	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 73.46%			
70) 2,4,6-Tribromophenol	4.21	330	265069	74.45	UG	-0.06
Spiked Amount 100.000	Range 37 - 115		Recovery = 74.45%			
84) Terphenyl-d14	5.44	244	1108634m	58.62	UG	-0.15
Spiked Amount 50.000	Range 15 - 122		Recovery = 117.24%			

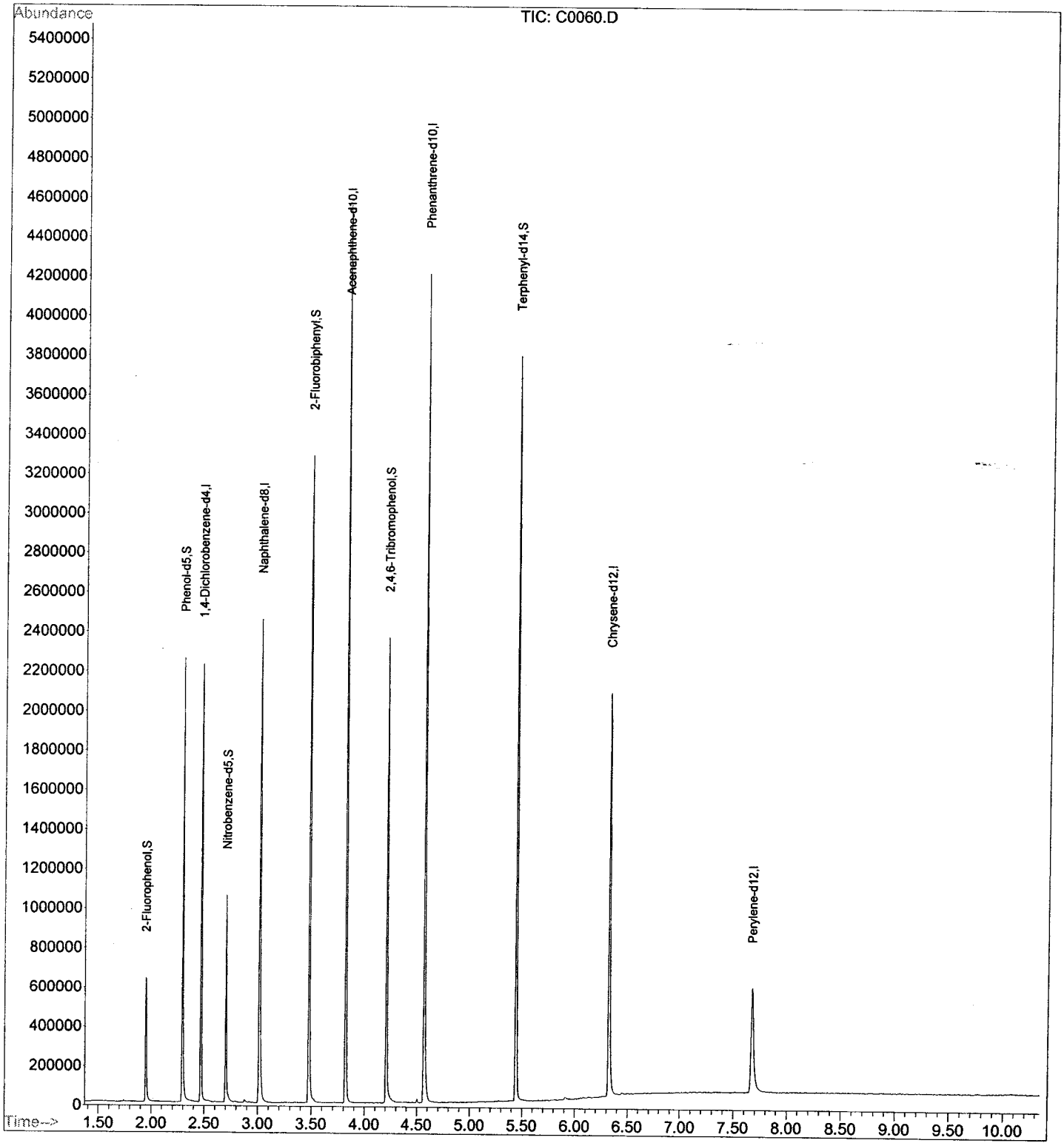
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0060.D
Acq On : 18 Sep 2013 15:35
Operator : EDM
Sample : .,BLKS130918-02,S,15.00g,0,0.5
Misc : 130918-02,09/18/13,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 18 15:46:43 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-18-13\
Data File : C0060.D
Acq On : 18 Sep 2013 15:35
Operator : EDM
Sample : .,BLKS130918-02,S,15.00g,0,0.5
Misc : 130918-02,09/18/13,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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CS2213.M Wed Sep 18 15:46:53 2013 RPT1

PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS130920-10	SOIL	71		81		80		98	
FILL/8.5	09204-006	SOIL	37		44		40		48	
13-149-TP1	09105-001	SOIL	83		85		83		110	
13-149-TP5	09105-002	SOIL	76		84		77		91	
13-149-TP7	09105-003	SOIL	82		99		81		103	
AOC-4/7.5-	09135-005	SOIL	39		50		39		50	
G-40/1.5-2	09263-001	SOIL	40		52		41		47	
G-41/1.5-2	09263-002	SOIL	29	M	59		32		89	
G-42/1.5-2	09263-003	SOIL	42		40		39		58	
G-43/1.5-2	09263-004	SOIL	44		55		42		81	
G-44/1.5-2	09263-005	SOIL	36		54		36		65	
HF-1/2-2.5	08859-001	SOIL	31		36		31		44	
HF-2/4-4.5	08859-002	SOIL	24	M	32		31		43	
Pest	LCSS130920-10	SOIL	72		95		72		81	
Pest	09263-001MS	SOIL	52		60		52		58	
Pest	09263-001MSD	SOIL	53		61		52		61	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130920-10
Date Received: NA
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
Data file: V4611.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	72.27	72
beta-BHC	100.0	0.00	69.75	70
gamma-BHC (Lindane)	100.0	0.00	74.64	75
delta-BHC	100.0	0.00	74.39	74
Heptachlor	100.0	0.00	71.09	71
Aldrin	100.0	0.00	72.49	72
Heptachlor epoxide	100.0	0.00	72.95	73
Endosulfan I	100.0	0.00	75.65	76
4,4'-DDE	100.0	0.00	78.15	78
Dieldrin	100.0	0.00	67.32	67
Endrin	100.0	0.00	78.90	79
Endosulfan II	100.0	0.00	76.60	77
4,4'-DDD	100.0	0.00	77.66	78
Endrin aldehyde	100.0	0.00	72.64	73
Endosulfan sulfate	100.0	0.00	74.58	75
4,4'-DDT	100.0	0.00	67.16	67
Endrin ketone	100.0	0.00	75.77	76
Methoxychlor	100.0	0.00	67.89	68
alpha-Chlordane	100.0	0.00	74.95	75
gamma-Chlordane	100.0	0.00	74.97	75

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	30-140	30-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09263-001
Date Received: 09/19/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
MS Data file: V4618.D
MSD Data file: V4619.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.18g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 1.90
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
alpha-BHC	100.00	0.00	73.71	74		73.95	74		0	
beta-BHC	100.00	0.00	66.45	66		73.12	73		10	
gamma-BHC (Lindane)	100.00	0.00	75.70	76		76.50	77		1	
delta-BHC	100.00	0.00	75.33	75		76.03	76		1	
Heptachlor	100.00	0.00	69.67	70		69.70	70		0	
Aldrin	100.00	0.00	74.67	75		75.89	76		2	
Heptachlor epoxide	100.00	0.00	75.43	75		76.70	77		2	
Endosulfan I	100.00	0.00	75.35	75		78.65	79		4	
4,4'-DDE	100.00	0.00	81.13	81		80.82	81		0	
Dieldrin	100.00	0.00	68.32	68		69.52	70		2	
Endrin	100.00	0.00	76.92	77		78.52	79		2	
Endosulfan II	100.00	0.00	77.23	77		79.69	80		3	
4,4'-DDD	100.00	0.00	82.01	82		84.93	85		3	
Endrin aldehyde	100.00	0.00	75.99	76		79.51	80		5	
Endosulfan sulfate	100.00	0.00	75.92	76		78.53	79		3	
4,4'-DDT	100.00	0.00	57.13	57		60.33	60		5	
Endrin ketone	100.00	0.00	78.23	78		82.62	83		5	
Methoxychlor	100.00	0.00	61.54	62		64.16	64		4	
alpha-Chlordane	100.00	0.00	76.29	76		77.27	77		1	
gamma-Chlordane	100.00	0.00	76.36	76		77.80	78		2	

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V4596.D

Instrument ID: GC-V

Date Extracted: 09/20/2013

Matrix: SOIL

Date Analyzed: 09/23/2013

Time Analyzed: 15:46

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
FILL/8.5	09204-006	09/23/2013	16:19
13-149-TP1	09105-001	09/23/2013	16:31
13-149-TP5	09105-002	09/23/2013	16:43
13-149-TP7	09105-003	09/23/2013	16:55
AOC-4/7.5-	09135-005	09/23/2013	17:07
G-40/1.5-2	09263-001	09/23/2013	17:19
G-41/1.5-2	09263-002	09/23/2013	17:31
G-42/1.5-2	09263-003	09/23/2013	17:43
G-43/1.5-2	09263-004	09/23/2013	17:56
G-44/1.5-2	09263-005	09/23/2013	18:08
HF-1/2-2.5	08859-001	09/23/2013	18:20
HF-2/4-4.5	08859-002	09/23/2013	18:32
Pest	LCSS130920-10	09/23/2013	19:08
Pest	09263-001MS	09/24/2013	10:51
Pest	09263-001MSD	09/24/2013	11:03

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4592.D V4591.D V4590.D V4589.D V4588.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.37	2.37	2.37	2.37	2.37	2.37	2.31	2.43
beta-BHC	2.69	2.69	2.69	2.69	2.69	2.69	2.63	2.75
gamma-BHC	2.62	2.62	2.62	2.62	2.62	2.62	2.56	2.68
delta-BHC	2.85	2.85	2.85	2.85	2.85	2.85	2.79	2.91
Heptachlor	3.04	3.04	3.04	3.04	3.04	3.04	2.96	3.12
Aldrin	3.33	3.33	3.33	3.33	3.33	3.33	3.25	3.41
Heptachlor epoxide	3.98	3.98	3.98	3.98	3.98	3.98	3.90	4.06
Endosulfan I	4.44	4.44	4.44	4.44	4.44	4.44	4.36	4.52
4,4'-DDE	4.39	4.39	4.38	4.39	4.39	4.39	4.29	4.49
Dieldrin	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Endrin	5.03	5.03	5.02	5.03	5.03	5.03	4.93	5.13
Endosulfan II	5.32	5.32	5.32	5.32	5.32	5.32	5.22	5.42
4,4'-DDD	5.15	5.15	5.15	5.15	5.15	5.15	5.05	5.25
Endrin aldehyde	5.90	5.90	5.90	5.90	5.90	5.90	5.78	6.02
Endosulfan sulfate	6.52	6.52	6.52	6.52	6.52	6.52	6.40	6.64
4,4'-DDT	5.52	5.52	5.52	5.52	5.52	5.52	5.40	5.64
Endrin ketone	6.88	6.88	6.88	6.88	6.88	6.88	6.76	7.00
Methoxychlor	6.24	6.24	6.24	6.24	6.24	6.24	6.12	6.36
alpha-Chlordane	4.28	4.28	4.28	4.28	4.28	4.28	4.20	4.36
gamma-Chlordane	4.12	4.12	4.12	4.12	4.12	4.12	4.04	4.20
Chlordane 500 ppb			2.97				2.89	3.05
Chlordane {2}			3.47				3.39	3.55
Chlordane {3}			4.12				4.04	4.20
Chlordane {4}			4.27				4.19	4.35
Chlordane {5}			5.23				5.15	5.31
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.40				5.32	5.48
Toxaphene {3}			5.87				5.79	5.95
Toxaphene {4}			6.37				6.29	6.45
Toxaphene {5}			6.86				6.78	6.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V

GC Column (1st): RTX-CLP1

Data File: V4592.D V4591.D V4590.D V4589.D V4588.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	347678	346418	345062	395828	363569	359711	5.99
beta-BHC	141529	124410	123822	159328	142260	138270	10.67
gamma-BHC	285044	302071	304263	335651	309704	307347	5.96
delta-BHC	318353	309454	303846	358195	325485	323067	6.60
Heptachlor	297982	313491	304187	354147	322544	318470	6.91
Aldrin	305406	310556	302159	344489	315278	315577	5.36
Heptachlor epoxide	284978	277309	266362	301560	273471	280736	4.79
Endosulfan I	292081	297402	279594	323004	290955	296607	5.43
4,4'-DDE	211496	222455	222263	256010	234778	229400	7.41
Dieldrin	289855	276081	275409	310895	282157	286879	5.10
Endrin	238110	247891	242093	276437	252109	251328	5.98
Endosulfan II	263759	242034	230993	267999	240844	249126	6.40
4,4'-DDD	233637	221480	210325	244172	220459	226015	5.79
Endrin aldehyde	222224	185371	174905	203745	182337	193717	9.88
Endosulfan sulfate	225073	212795	199539	232044	208191	215528	6.05
4,4'-DDT	191416	166692	173290	226749	210029	193635	12.94
Endrin ketone	251375	255896	238821	276464	247214	253954	5.54
Methoxychlor	85157	85324	86222	108672	99532	92981	11.47
alpha-Chlordane	277114	270432	262029	299467	273510	276510	5.06
gamma-Chlordane	280577	279150	271656	310502	284095	285196	5.21
Chlordane 500 ppb			7578				
Chlordane {2}			9120				
Chlordane {3}			27556				
Chlordane {4}			43517				
Chlordane {5}			7002				
Toxaphene 500 ppb			2995				
Toxaphene {2}			4340				
Toxaphene {3}			5723				
Toxaphene {4}			6032				
Toxaphene {5}			5978				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V4592.C V4591.C V4590.C V4589.C V4588.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	2	50	100	200	300	RT	FROM	TO
alpha-BHC	2.86	2.86	2.86	2.86	2.86	2.86	2.80	2.92
beta-BHC	3.30	3.30	3.30	3.30	3.30	3.30	3.24	3.36
gamma-BHC	3.22	3.22	3.22	3.22	3.22	3.22	3.16	3.28
delta-BHC	3.62	3.63	3.63	3.62	3.62	3.62	3.56	3.68
Heptachlor	3.71	3.72	3.72	3.72	3.72	3.72	3.64	3.80
Aldrin	4.10	4.10	4.10	4.10	4.10	4.10	4.02	4.18
Heptachlor epoxide	4.82	4.82	4.82	4.82	4.82	4.82	4.74	4.90
Endosulfan I	5.35	5.35	5.35	5.35	5.35	5.35	5.27	5.43
4,4'-DDE	5.53	5.53	5.53	5.53	5.53	5.53	5.43	5.63
Dieldrin	5.74	5.74	5.74	5.74	5.74	5.74	5.64	5.84
Endrin	6.17	6.17	6.17	6.17	6.17	6.17	6.07	6.27
Endosulfan II	6.49	6.49	6.49	6.49	6.49	6.49	6.39	6.59
4,4'-DDD	6.37	6.37	6.37	6.37	6.37	6.37	6.27	6.47
Endrin aldehyde	6.95	6.95	6.95	6.95	6.95	6.95	6.83	7.07
Endosulfan sulfate	7.26	7.26	7.26	7.26	7.26	7.26	7.14	7.38
4,4'-DDT	6.82	6.82	6.82	6.82	6.82	6.82	6.70	6.94
Endrin ketone	7.77	7.77	7.77	7.77	7.77	7.77	7.65	7.89
Methoxychlor	7.57	7.58	7.58	7.58	7.58	7.58	7.46	7.70
alpha-Chlordane	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
gamma-Chlordane	5.08	5.08	5.08	5.08	5.08	5.08	5.00	5.16
Chlordane 500 ppb			3.55				3.47	3.63
Chlordane {2}			4.28				4.20	4.36
Chlordane {3}			5.08				5.00	5.16
Chlordane {4}			5.21				5.13	5.29
Chlordane {5}			5.28				5.20	5.36
Toxaphene 500 ppb			6.62				6.54	6.70
Toxaphene {2}			6.96				6.88	7.04
Toxaphene {3}			7.21				7.13	7.29
Toxaphene {4}			7.51				7.43	7.59
Toxaphene {5}			7.86				7.78	7.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V4592.C V4591.C V4590.C V4589.C V4588.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	1425053	1377331	1324482	1520622	1382702	1406038	5.22
beta-BHC	533298	527060	471815	551228	496617	516004	6.12
gamma-BHC	1220996	1218448	1166622	1320555	1197782	1224881	4.71
delta-BHC	1287860	1195048	1121925	1286419	1152718	1208794	6.29
Heptachlor	1323562	1207499	1139489	1287823	1151217	1221918	6.68
Aldrin	1250670	1243746	1143886	1267028	1138531	1208772	5.15
Heptachlor epoxide	1046590	1070933	969823	1062743	946328	1019283	5.61
Endosulfan I	910703	899259	900872	988342	877592	915354	4.65
4,4'-DDE	959397	862726	898836	983804	873412	915635	5.84
Dieldrin	966279	944600	955000	1054598	937994	971694	4.90
Endrin	750688	758543	773042	852963	761971	779441	5.37
Endosulfan II	930367	788967	819609	899051	789517	845502	7.73
4,4'-DDD	747355	659041	681146	764449	675379	705474	6.68
Endrin aldehyde	603447	520611	502170	579290	513357	543775	8.23
Endosulfan sulfate	626034	584839	528648	622446	554915	583376	7.25
4,4'-DDT	499884	485099	490735	636830	579475	538404	12.45
Endrin ketone	547612	544727	517789	615325	554334	555958	6.47
Methoxychlor	200571	189994	172990	221527	218942	200805	10.11
alpha-Chlordane	968252	916193	908337	1017602	915078	945093	4.99
gamma-Chlordane	1063034	976008	982687	1096722	982639	1020218	5.47
Chlordane 500 ppb			33798				
Chlordane {2}			38358				
Chlordane {3}			103667				
Chlordane {4}			81930				
Chlordane {5}			87377				
Toxaphene 500 ppb			14633				
Toxaphene {2}			15901				
Toxaphene {3}			12662				
Toxaphene {4}			12244				
Toxaphene {5}			8968				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V

Data File: V4595.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	340435	5.36
beta-BHC	2.69	2.63	2.75	138270	119848	13.32
gamma-BHC	2.62	2.56	2.68	307347	309166	0.59
delta-BHC	2.85	2.79	2.91	323067	305259	5.51
Heptachlor	3.04	2.96	3.12	318470	303066	4.84
Aldrin	3.33	3.25	3.41	315577	299579	5.07
Heptachlor epoxide	3.98	3.90	4.06	280736	265983	5.26
Endosulfan I	4.44	4.36	4.52	296607	279123	5.89
4,4'-DDE	4.38	4.29	4.49	229400	226418	1.30
Dieldrin	4.73	4.63	4.83	286879	244706	14.70
Endrin	5.02	4.93	5.13	251328	245609	2.28
Endosulfan II	5.32	5.22	5.42	249126	238381	4.31
4,4'-DDD	5.15	5.05	5.25	226015	211483	6.43
Endrin aldehyde	5.90	5.78	6.02	193717	185042	4.48
Endosulfan sulfate	6.52	6.40	6.64	215528	204459	5.14
4,4'-DDT	5.52	5.40	5.64	193635	176049	9.08
Endrin ketone	6.88	6.76	7.00	253954	248622	2.10
Methoxychlor	6.24	6.12	6.36	92981	86451	7.02
alpha-Chlordane	4.28	4.20	4.36	276510	264040	4.51
gamma-Chlordane	4.12	4.04	4.20	285196	272255	4.54

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V

Data File: V4595.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1333224	5.18
beta-BHC	3.30	3.24	3.36	516004	457833	11.27
gamma-BHC	3.22	3.16	3.28	1224881	1215476	0.77
delta-BHC	3.62	3.56	3.68	1208794	1144802	5.29
Heptachlor	3.72	3.64	3.80	1221918	1153085	5.63
Aldrin	4.10	4.02	4.18	1208772	1155125	4.44
Heptachlor epoxide	4.82	4.74	4.90	1019283	972641	4.58
Endosulfan I	5.35	5.27	5.43	915354	927285	1.30
4,4'-DDE	5.53	5.43	5.63	915635	943137	3.00
Dieldrin	5.74	5.64	5.84	971694	888534	8.56
Endrin	6.17	6.07	6.27	779441	820940	5.32
Endosulfan II	6.49	6.39	6.59	845502	872641	3.21
4,4'-DDD	6.37	6.27	6.47	705474	709169	0.52
Endrin aldehyde	6.95	6.83	7.07	543775	554416	1.96
Endosulfan sulfate	7.26	7.14	7.38	583376	562730	3.54
4,4'-DDT	6.82	6.70	6.94	538404	521056	3.22
Endrin ketone	7.76	7.65	7.89	555958	551579	0.79
Methoxychlor	7.58	7.46	7.70	200805	182145	9.29
alpha-Chlordane	5.28	5.20	5.36	945093	938997	0.64
gamma-Chlordane	5.08	5.00	5.16	1020218	1009224	1.08

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V

Data File: V4612.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	344807	4.14
beta-BHC	2.69	2.63	2.75	138270	135522	1.99
gamma-BHC	2.62	2.56	2.68	307347	306145	0.39
delta-BHC	2.85	2.79	2.91	323067	323859	0.25
Heptachlor	3.04	2.96	3.12	318470	296721	6.83
Aldrin	3.33	3.25	3.41	315577	304926	3.38
Heptachlor epoxide	3.98	3.90	4.06	280736	274138	2.35
Endosulfan I	4.44	4.36	4.52	296607	292884	1.26
4,4'-DDE	4.39	4.29	4.49	229400	237319	3.45
Dieldrin	4.73	4.63	4.83	286879	252833	11.87
Endrin	5.03	4.93	5.13	251328	254772	1.37
Endosulfan II	5.32	5.22	5.42	249126	251661	1.02
4,4'-DDD	5.15	5.05	5.25	226015	236614	4.69
Endrin aldehyde	5.90	5.78	6.02	193717	197368	1.88
Endosulfan sulfate	6.52	6.40	6.64	215528	219281	1.74
4,4'-DDT	5.53	5.40	5.64	193635	162482	16.09
Endrin ketone	6.88	6.76	7.00	253954	259532	2.20
Methoxychlor	6.24	6.12	6.36	92981	82513	11.26
alpha-Chlordane	4.28	4.20	4.36	276510	272198	1.56
gamma-Chlordane	4.12	4.04	4.20	285196	280769	1.55

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V

Data File: V4612.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1340809	4.64
beta-BHC	3.30	3.24	3.36	516004	478966	7.18
gamma-BHC	3.22	3.16	3.28	1224881	1218320	0.54
delta-BHC	3.63	3.56	3.68	1208794	1190557	1.51
Heptachlor	3.72	3.64	3.80	1221918	1121559	8.21
Aldrin	4.10	4.02	4.18	1208772	1145998	5.19
Heptachlor epoxide	4.82	4.74	4.90	1019283	972418	4.60
Endosulfan I	5.35	5.27	5.43	915354	913706	0.18
4,4'-DDE	5.53	5.43	5.63	915635	940566	2.72
Dieldrin	5.74	5.64	5.84	971694	864740	11.01
Endrin	6.17	6.07	6.27	779441	807667	3.62
Endosulfan II	6.49	6.39	6.59	845502	853376	0.93
4,4'-DDD	6.37	6.27	6.47	705474	751801	6.57
Endrin aldehyde	6.95	6.83	7.07	543775	558867	2.78
Endosulfan sulfate	7.26	7.14	7.38	583376	573546	1.69
4,4'-DDT	6.82	6.70	6.94	538404	445915	17.18
Endrin ketone	7.77	7.65	7.89	555958	575146	3.45
Methoxychlor	7.58	7.46	7.70	200805	174188	13.25
alpha-Chlordane	5.28	5.20	5.36	945093	933191	1.26
gamma-Chlordane	5.08	5.00	5.16	1020218	1011151	0.89

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4615.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	342107	4.89
beta-BHC	2.69	2.63	2.75	138270	145814	5.46
gamma-BHC	2.62	2.56	2.68	307347	293958	4.36
delta-BHC	2.85	2.79	2.91	323067	323865	0.25
Heptachlor	3.04	2.96	3.12	318470	294160	7.63
Aldrin	3.33	3.25	3.41	315577	302908	4.01
Heptachlor epoxide	3.98	3.90	4.06	280736	272451	2.95
Endosulfan I	4.44	4.36	4.52	296607	295053	0.52
4,4'-DDE	4.39	4.29	4.49	229400	230893	0.65
Dieldrin	4.74	4.63	4.83	286879	250654	12.63
Endrin	5.03	4.93	5.13	251328	244267	2.81
Endosulfan II	5.32	5.22	5.42	249126	248355	0.31
4,4'-DDD	5.15	5.05	5.25	226015	231626	2.48
Endrin aldehyde	5.90	5.78	6.02	193717	195790	1.07
Endosulfan sulfate	6.52	6.40	6.64	215528	216389	0.40
4,4'-DDT	5.53	5.40	5.64	193635	161574	16.56
Endrin ketone	6.88	6.76	7.00	253954	259542	2.20
Methoxychlor	6.25	6.12	6.36	92981	78123	15.98
alpha-Chlordane	4.28	4.20	4.36	276510	270184	2.29
gamma-Chlordane	4.12	4.04	4.20	285196	278432	2.37
Chlordane 500 ppb	2.97	2.89	3.05	7578	7923	4.56
Chlordane {2}	3.47	3.39	3.55	9120	9769	7.12
Chlordane {3}	4.12	4.04	4.20	27556	29447	6.86
Chlordane {4}	4.27	4.19	4.35	43517	46343	6.49
Chlordane {5}	5.23	5.15	5.31	7002	7066	0.91
Toxaphene 500 ppb	5.08	4.99	5.15	2995	3298	10.11
Toxaphene {2}	5.42	5.32	5.48	4340	3714	14.41
Toxaphene {3}	5.88	5.79	5.95	5723	5308	7.25
Toxaphene {4}	6.38	6.29	6.45	6032	5385	10.72
Toxaphene {5}	6.86	6.78	6.94	5978	5616	6.07

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4615.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1305950	7.12
beta-BHC	3.30	3.24	3.36	516004	478438	7.28
gamma-BHC	3.22	3.16	3.28	1224881	1174751	4.09
delta-BHC	3.63	3.56	3.68	1208794	1162779	3.81
Heptachlor	3.72	3.64	3.80	1221918	1088582	10.91
Aldrin	4.11	4.02	4.18	1208772	1118169	7.50
Heptachlor epoxide	4.83	4.74	4.90	1019283	945667	7.22
Endosulfan I	5.36	5.27	5.43	915354	880712	3.78
4,4'-DDE	5.53	5.43	5.63	915635	898778	1.84
Dieldrin	5.74	5.64	5.84	971694	832697	14.30
Endrin	6.18	6.07	6.27	779441	747885	4.05
Endosulfan II	6.49	6.39	6.59	845502	818550	3.19
4,4'-DDD	6.38	6.27	6.47	705474	714109	1.22
Endrin aldehyde	6.95	6.83	7.07	543775	540727	0.56
Endosulfan sulfate	7.27	7.14	7.38	583376	556645	4.58
4,4'-DDT	6.83	6.70	6.94	538404	431768	19.81
Endrin ketone	7.77	7.65	7.89	555958	552244	0.67
Methoxychlor	7.58	7.46	7.70	200805	196164	2.31
alpha-Chlordane	5.28	5.20	5.36	945093	901614	4.60
gamma-Chlordane	5.08	5.00	5.16	1020218	964626	5.45
Chlordane 500 ppb	3.55	3.47	3.63	33798	34759	2.84
Chlordane {2}	4.28	4.20	4.36	38358	37937	1.10
Chlordane {3}	5.08	5.00	5.16	103667	105079	1.36
Chlordane {4}	5.21	5.13	5.29	81930	82551	0.76
Chlordane {5}	5.28	5.20	5.36	87377	91344	4.54
Toxaphene 500 ppb	6.63	6.54	6.70	14633	12489	14.65
Toxaphene {2}	6.98	6.88	7.04	15901	13549	14.79
Toxaphene {3}	7.22	7.13	7.29	12662	10856	14.27
Toxaphene {4}	7.51	7.43	7.59	12244	10700	12.61
Toxaphene {5}	7.87	7.78	7.94	8968	7944	11.42

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4620.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	331975	7.71
beta-BHC	2.69	2.63	2.75	138270	121702	11.98
gamma-BHC	2.62	2.56	2.68	307347	300019	2.38
delta-BHC	2.85	2.79	2.91	323067	306377	5.17
Heptachlor	3.04	2.96	3.12	318470	282436	11.31
Aldrin	3.33	3.25	3.41	315577	291497	7.63
Heptachlor epoxide	3.98	3.90	4.06	280736	260780	7.11
Endosulfan I	4.44	4.36	4.52	296607	282753	4.67
4,4'-DDE	4.39	4.29	4.49	229400	217076	5.37
Dieldrin	4.73	4.63	4.83	286879	239780	16.42
Endrin	5.03	4.93	5.13	251328	221926	11.70
Endosulfan II	5.32	5.22	5.42	249126	238587	4.23
4,4'-DDD	5.15	5.05	5.25	226015	218854	3.17
Endrin aldehyde	5.90	5.78	6.02	193717	191749	1.02
Endosulfan sulfate	6.52	6.40	6.64	215528	205013	4.88
4,4'-DDT	5.53	5.40	5.64	193635	168189	13.14
Endrin ketone	6.88	6.76	7.00	253954	252049	0.75
Methoxychlor	6.25	6.12	6.36	92981	86354	7.13
alpha-Chlordane	4.28	4.20	4.36	276510	258704	6.44
gamma-Chlordane	4.12	4.04	4.20	285196	267513	6.20

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4620.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1292964	8.04
beta-BHC	3.30	3.24	3.36	516004	455649	11.70
gamma-BHC	3.22	3.16	3.28	1224881	1167638	4.67
delta-BHC	3.63	3.56	3.68	1208794	1130500	6.48
Heptachlor	3.72	3.64	3.80	1221918	1061596	13.12
Aldrin	4.10	4.02	4.18	1208772	1105839	8.52
Heptachlor epoxide	4.82	4.74	4.90	1019283	934785	8.29
Endosulfan I	5.35	5.27	5.43	915354	878686	4.01
4,4'-DDE	5.53	5.43	5.63	915635	887207	3.10
Dieldrin	5.74	5.64	5.84	971694	843241	13.22
Endrin	6.17	6.07	6.27	779441	719733	7.66
Endosulfan II	6.49	6.39	6.59	845502	847673	0.26
4,4'-DDD	6.37	6.27	6.47	705474	699783	0.81
Endrin aldehyde	6.95	6.83	7.07	543775	553096	1.71
Endosulfan sulfate	7.26	7.14	7.38	583376	550542	5.63
4,4'-DDT	6.82	6.70	6.94	538404	448202	16.75
Endrin ketone	7.77	7.65	7.89	555958	558702	0.49
Methoxychlor	7.58	7.46	7.70	200805	173698	13.50
alpha-Chlordane	5.28	5.20	5.36	945093	886416	6.21
gamma-Chlordane	5.08	5.00	5.16	1020218	958941	6.01

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.99 **DCB 1** 7.89 **TCMX 2** 2.35 **DCB 2** 8.83

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS130920-10	09/23/2013	15:46	1.99		7.89		2.35		8.83	
FILL/8.5	09204-006	09/23/2013	16:19	1.99		7.90		2.35		8.83	
13-149-TP1	09105-001	09/23/2013	16:31	1.98		7.89		2.34		8.82	
13-149-TP5	09105-002	09/23/2013	16:43	1.98		7.89		2.34		8.82	
13-149-TP7	09105-003	09/23/2013	16:55	1.98		7.89		2.34		8.82	
AOC-4/7.5-	09135-005	09/23/2013	17:07	1.98		7.89		2.33		8.82	
G-40/1.5-2	09263-001	09/23/2013	17:19	1.98		7.89		2.33		8.82	
G-41/1.5-2	09263-002	09/23/2013	17:31	1.98		7.89		2.33		8.82	
G-42/1.5-2	09263-003	09/23/2013	17:43	1.98		7.89		2.33		8.82	
G-43/1.5-2	09263-004	09/23/2013	17:56	1.98		7.89		2.33		8.82	
G-44/1.5-2	09263-005	09/23/2013	18:08	1.98		7.89		2.33		8.82	
HF-1/2-2.5	08859-001	09/23/2013	18:20	1.98		7.89		2.33		8.82	
HF-2/4-4.5	08859-002	09/23/2013	18:32	1.98		7.89		2.33		8.82	
Pest	LCSS130920-10	09/23/2013	19:08	1.98		7.89		2.33		8.82	
Pest	09263-001MS	09/24/2013	10:51	1.98		7.89		2.33		8.82	
Pest	09263-001MSD	09/24/2013	11:03	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 09/23/2013

Data file: V4584.D Mon Sep 23 09:09:55 2013

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	14284751	Endrin (1)	16969257	5.62	5.78
DDD	359485	Endrin ketone	1040045		
DDE	491300	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	41246408	Endrin (2)	55211080	8.47	1.53
DDD	1589629	Endrin ketone	857243		
DDE	2225792	Endrin aldehyde	0		

Date Analyzed: 09/24/2013

Data file: V4613.D Tue Sep 24 09:44:02 2013

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	14266367	Endrin (1)	19199025	11.14	5.87
DDD	1240980	Endrin ketone	899773		
DDE	546959	Endrin aldehyde	297954		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	43983997	Endrin (2)	66718443	0.55	3.93
DDD	43769	Endrin ketone	2668567		
DDE	199164	Endrin aldehyde	58684		

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : V4601.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 17:07
Operator : IB
Sample : AOC-4/7.5-,09135-005,S,30.85g,9.40,09/20/13,1
Misc : 130920-10,09/16/13,09/17/13,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 09:05:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Mon Sep 23 11:45:25 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

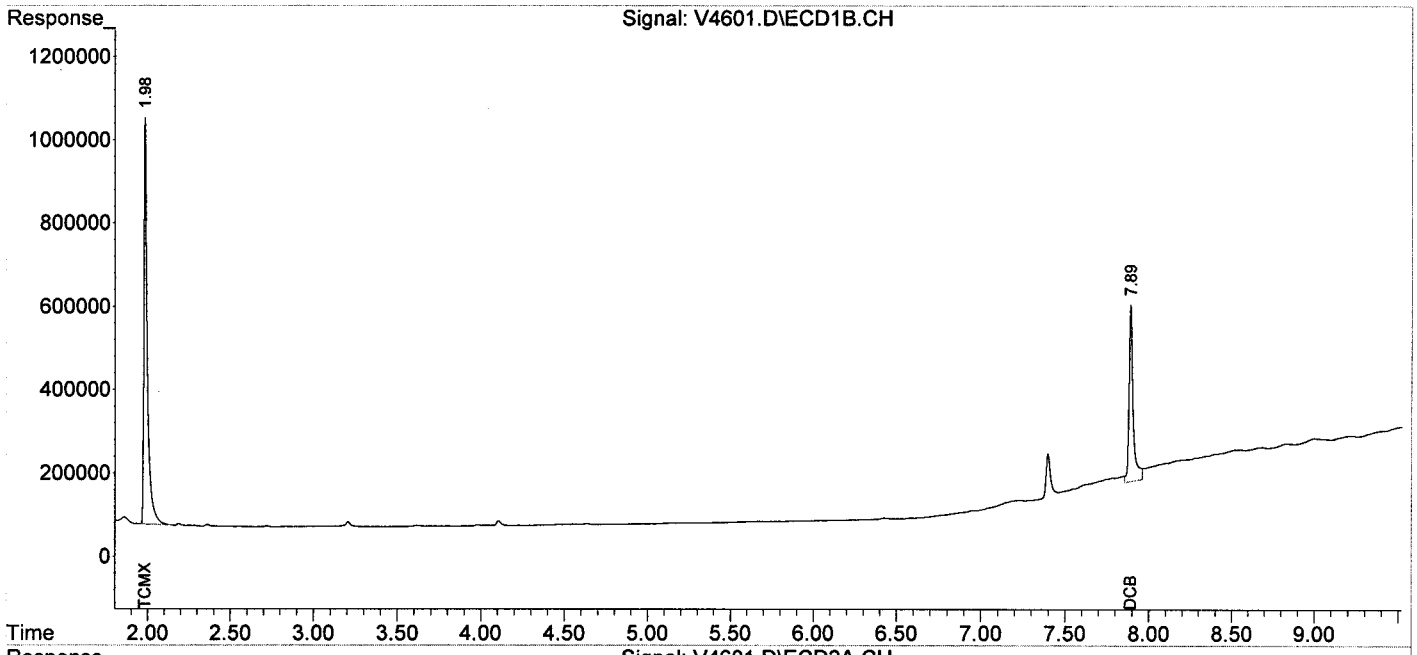
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	13866210	54159957	77.013	77.165
Spiked Amount 200.000			Recovery	=	38.51%	38.58%
2) S DCB	7.89	8.82	7182485	17207468	99.622	99.890m
Spiked Amount 200.000			Recovery	=	49.81%	49.95%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

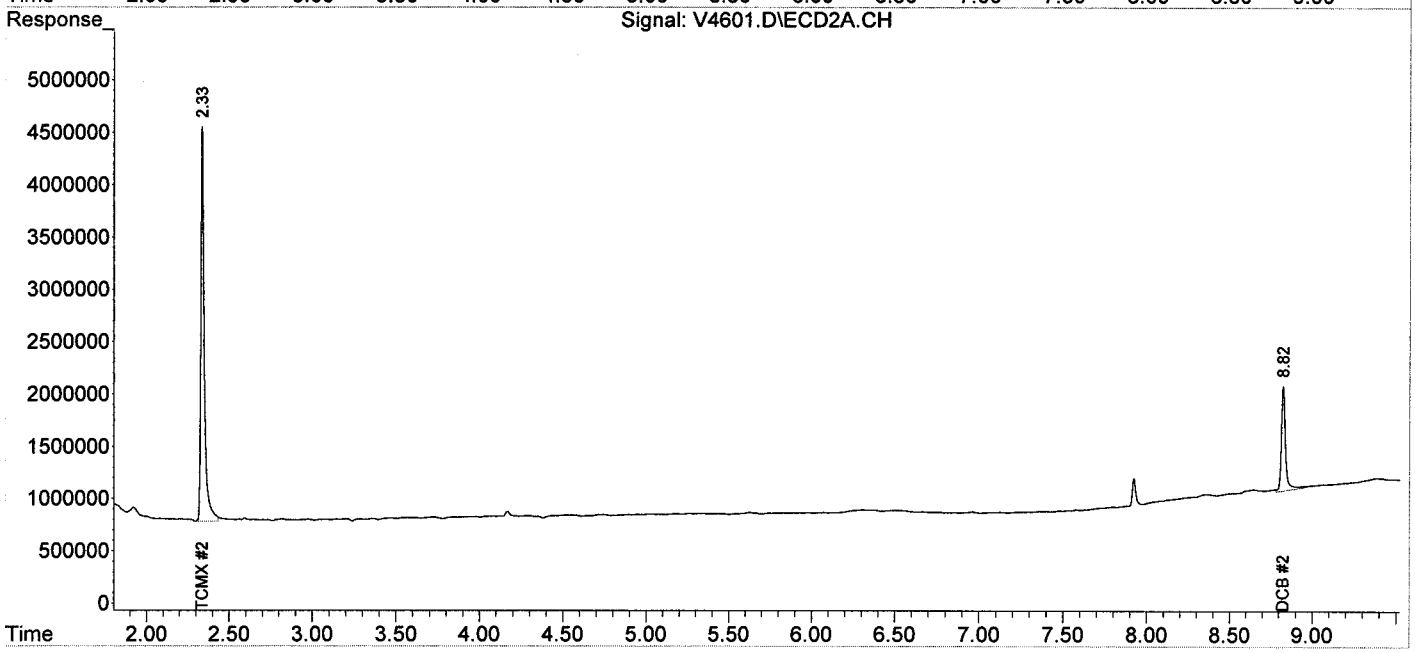
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : V4601.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 17:07
Operator : IB
Sample : AOC-4/7.5-,09135-005,S,30.85g,9.40,09/20/13,1
Misc : 130920-10,09/16/13,09/17/13,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 09:05:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Mon Sep 23 11:45:25 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS130920-10
Client ID: Pest
Date Received: NA
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
Data file: V4596.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000334	0.000167
beta-BHC	ND		0.000334	0.000167
gamma-BHC (Lindane)	ND		0.000334	0.000167
delta-BHC	ND		0.000334	0.000167
Heptachlor	ND		0.000334	0.000167
Aldrin	ND		0.000334	0.000167
Heptachlor epoxide	ND		0.000334	0.000167
Endosulfan I	ND		0.000334	0.000167
4,4'-DDE	ND		0.000334	0.000167
Dieldrin	ND		0.000334	0.000167
Endrin	ND		0.000334	0.000167
Endosulfan II	ND		0.000334	0.000167
4,4'-DDD	ND		0.000334	0.000167
Endrin aldehyde	ND		0.000334	0.000167
Endosulfan sulfate	ND		0.000334	0.000167
4,4'-DDT	ND		0.000334	0.000167
Endrin ketone	ND		0.000334	0.000167
Methoxychlor	ND		0.000334	0.000167
alpha-Chlordane	ND		0.000334	0.000167
gamma-Chlordane	ND		0.000334	0.000167
Toxaphene	ND		0.00418	0.002
Endosulfan (I and II)	ND		0.000334	0.000167
Chlordane (alpha and gamma)	ND		0.000334	0.000167

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : V4596.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 15:46
Operator : IB
Sample : Pest,BLKS130920-10,S,30.00g,0,09/20/13,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 23 16:20:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Mon Sep 23 11:45:25 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.99	2.35	25465536	112.3E6	141.436	159.942
Spiked Amount 200.000			Recovery	=	70.72%	79.97%
2) S DCB	7.89	8.83	11662854	33771428	161.765	196.045
Spiked Amount 200.000			Recovery	=	80.88%	98.02%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

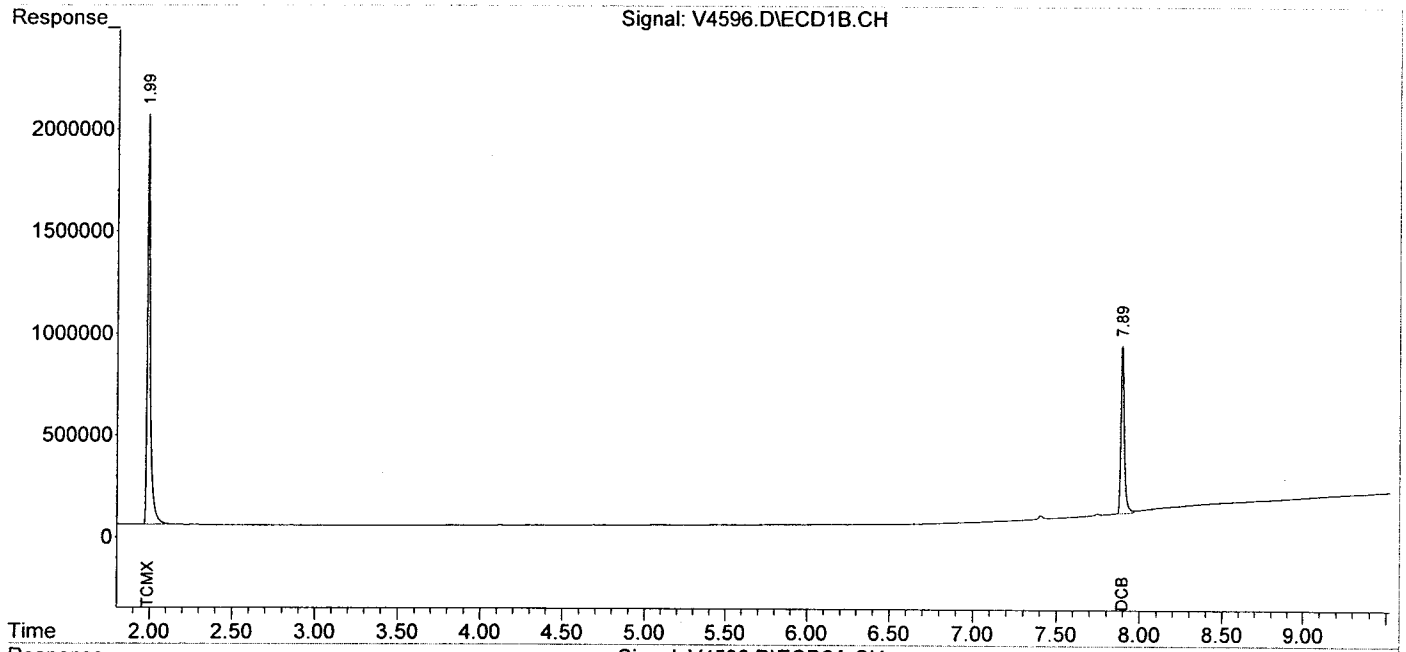
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

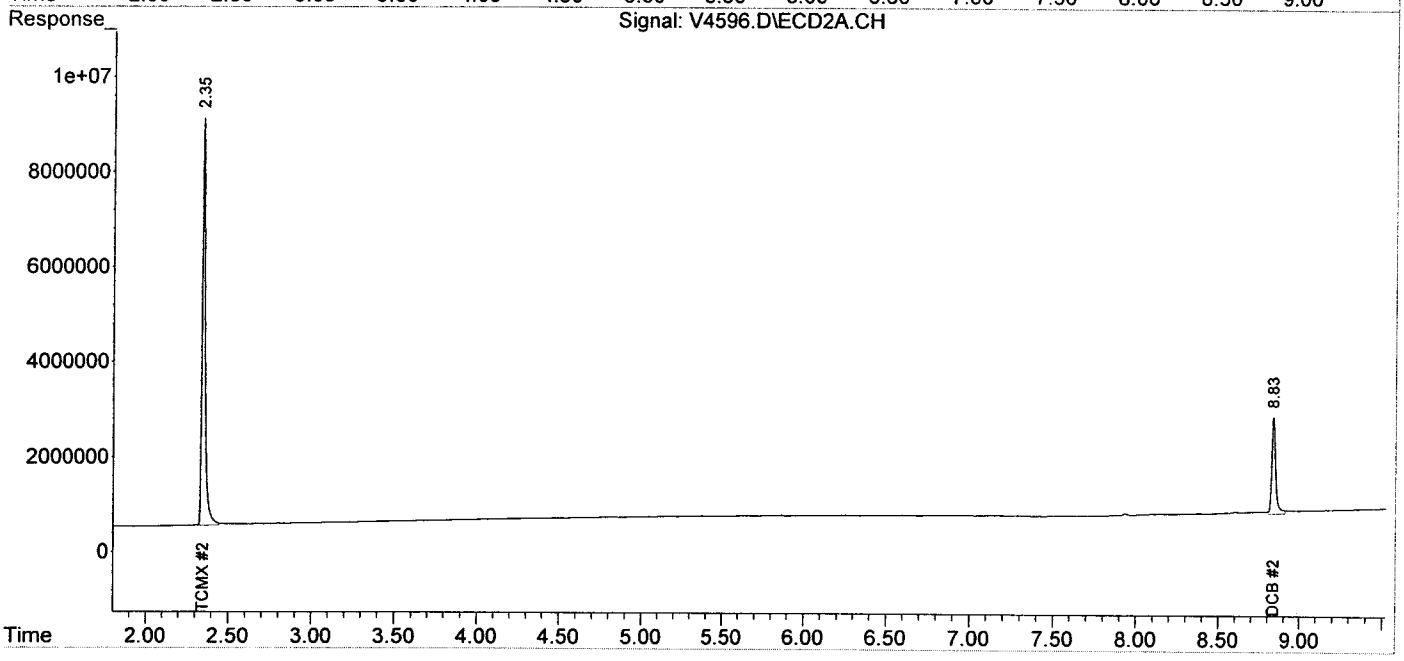
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : V4596.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 15:46
Operator : IB
Sample : Pest,BLKS130920-10,S,30.00g,0,09/20/13,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 23 16:20:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Mon Sep 23 11:45:25 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





HERBICIDE DATA

HERBICIDE QC SUMMARY

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/16/2013

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKS130911-14	SOIL	88		109	
Herb	LCSS130911-14	SOIL	74		96	
SEPTIC_DIS	08775-001	SOIL	44		60	
Herb	08775-001MS	SOIL	72		87	
Herb	08775-001MSD	SOIL	81		84	
SEPTIC_DIS	08775-003	SOIL	63		78	
FLOOR_DRAI	08775-005	SOIL	59		75	
FLOOR_DRAI	08775-007	SOIL	73		73	
PESTICIDE_	08775-009	SOIL	77		77	
PESTICIDE_	08775-010	SOIL	64		77	
PESTICIDE_	08775-011	SOIL	73		81	
PESTICIDE_	08775-012	SOIL	52		55	
FERTILIZER	08775-013	SOIL	68		67	
FERTILIZER	08775-014	SOIL	71		74	
FERTILIZER	08775-015	SOIL	60		55	
SEPTIC_TAN	08775-018	SOIL	63		75	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/25/2013

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKS130924-04	SOIL	79		80	
AOC-4/7.5-	09135-005	SOIL	40		61	
Herb	LCSS130924-04	SOIL	70		73	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130924-04
Date Received: NA
Date Extracted: 09/24/2013
Date Analyzed: 09/25/2013
Data file: W0305.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
Dalapon	200.0	0.00	156.15	78
Dicamba	200.0	0.00	147.21	74
2,4-D	200.0	0.00	112.56	56
2,4,5-TP (Silvex)	200.0	0.00	156.99	78
2,4,5-T	200.0	0.00	158.78	79
2,4-DB	200.0	0.00	131.13	66
Dinoseb	200.0	0.00	102.90	51

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 08775-001
Date Received: 09/06/2013
Date Extracted: 09/11/2013
Date Analyzed: 09/16/2013
MS Data file: W0271.D
MSD Data file: W0272.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.17g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 28.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
Dalapon	200.00	0.00	122.59	61		126.55	63	3
Dicamba	200.00	0.00	144.00	72		152.97	76	6
2,4-D	200.00	0.00	111.13	56		94.93	47	16
2,4,5-TP (Silvex)	200.00	0.00	157.66	79		165.84	83	5
2,4,5-T	200.00	0.00	139.12	70		162.16	81	15
2,4-DB	200.00	0.00	130.52	65		110.67	55	16
Dinoseb	200.00	0.00	97.52	49		79.27	40	21

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W0268.D	Instrument ID:	GC-W
Date Extracted:	09/11/2013	Matrix:	SOIL
Date Analyzed:	09/16/2013	Time Analyzed:	12:58

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Herb	LCSS130911-14	09/16/2013	13:12
SEPTIC_DIS	08775-001	09/16/2013	13:26
Herb	08775-001MS	09/16/2013	13:40
Herb	08775-001MSD	09/16/2013	13:54
SEPTIC_DIS	08775-003	09/16/2013	14:08
FLOOR_DRAI	08775-005	09/16/2013	14:22
FLOOR_DRAI	08775-007	09/16/2013	14:36
PESTICIDE_	08775-009	09/16/2013	14:50
PESTICIDE_	08775-010	09/16/2013	15:04
PESTICIDE_	08775-011	09/16/2013	15:33
PESTICIDE_	08775-012	09/16/2013	15:47
FERTILIZER	08775-013	09/16/2013	16:01
FERTILIZER	08775-014	09/16/2013	16:15
FERTILIZER	08775-015	09/16/2013	16:29
SEPTIC_TAN	08775-018	09/16/2013	16:43

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W0305.D	Instrument ID:	GC-W
Date Extracted:	09/24/2013	Matrix:	SOIL
Date Analyzed:	09/25/2013	Time Analyzed:	19:20

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
AOC-4/7.5-Herb	09135-005	09/25/2013	19:34
	LCSS130924-04	09/25/2013	20:16

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 08/22/2013

Instrument ID: GC-W
GC Column (1st): RTX-CLP1

Data File: W0230.D W0229.D W0228.D W0227.D W0226.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW FROM	RT WINDOW TO
	50	100	200	250	400			
Dalapon	2.21	2.21	2.21	2.21	2.21	2.21	2.14	2.28
Dicamba	4.82	4.82	4.82	4.82	4.82	4.82	4.75	4.89
2,4-D	5.29	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.70	5.70	5.70	5.70	5.70	5.61	5.79
2,4,5-T	5.87	5.87	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.17	6.16	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.89	6.89	6.89	6.89	6.89	6.89	6.80	6.98

GC Column (2nd): RTX-CLP2

Data File: W0230.C W0229.C W0228.C W0227.C W0226.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW FROM	RT WINDOW TO
	50	100	200	250	400			
Dalapon	2.17	2.17	2.17	2.17	2.17	2.17	2.10	2.24
Dicamba	5.02	5.02	5.02	5.02	5.02	5.02	4.95	5.09
2,4-D	5.54	5.53	5.53	5.53	5.53	5.53	5.45	5.61
2,4,5-TP (Silvex)	5.99	5.98	5.98	5.98	5.98	5.98	5.89	6.07
2,4,5-T	6.22	6.22	6.22	6.21	6.21	6.22	6.13	6.31
2,4-DB	6.56	6.55	6.55	6.55	6.55	6.55	6.46	6.64
Dinoseb	6.79	6.79	6.79	6.79	6.79	6.79	6.70	6.88

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 08/22/2013

Instrument ID: GC-W

GC Column (1st): RTX-CLP1

Data File: W0230.D W0229.D W0228.D W0227.D W0226.D

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	698010	691776	677824	673586	675626	683364	1.59
Dicamba	1777730	1829734	1835154	1835394	1939173	1843437	3.19
2,4-D	760461	757688	748581	744990	665623	735469	5.38
Silvex	2715867	2912527	2971175	2970120	3064602	2926858	4.44
2,4,5-T	2864147	3016461	2993542	2963099	2903060	2948062	2.15
2,4-DB	495993	516622	543642	514534	491269	512412	4.04
Dinoseb	2199695	2280474	2240745	2283424	2338712	2268610	2.29

GC Column (2nd): RTX-CLP2

Data File: W0230.C W0229.C W0228.C W0227.C W0226.C

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	85909	85531	89017	90069	93510	88807	3.69
Dicamba	240059	229068	229174	229358	236704	232873	2.22
2,4-D	75241	79439	74644	73358	71815	74900	3.82
Silvex	363473	391109	385534	385916	387721	382751	2.87
2,4,5-T	342281	369705	362596	361986	362514	359816	2.86
2,4-DB	46445	48759	45535	45182	43000	45784	4.56
Dinoseb	234716	254142	255563	256045	257818	251657	3.80

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/16/2013 **Instrument ID:** GC-W

Data File: W0267.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	683364	603788	11.64
Dicamba	4.82	4.75	4.89	1843437	1557179	15.53
2,4-D	5.28	5.20	5.36	735469	615285	16.34
Silvex	5.71	5.61	5.79	2926858	2502138	14.51
2,4,5-T	5.87	5.77	5.95	2948062	2539887	13.85
2,4-DB	6.16	6.07	6.25	512412	433632	15.37
Dinoseb	6.89	6.80	6.98	2268610	2006773	11.54

GC Column (2nd): RTX-CLP2

Data File: W0267.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.18	2.10	2.24	88807	96968	9.19
Dicamba	5.02	4.95	5.09	232873	261622	12.35
2,4-D	5.54	5.45	5.61	74900	83288	11.20
Silvex	5.99	5.89	6.07	382751	413672	8.08
2,4,5-T	6.22	6.13	6.31	359816	403243	12.07
2,4-DB	6.56	6.46	6.64	45784	50617	10.56
Dinoseb	6.80	6.70	6.88	251657	268747	6.79

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/16/2013 **Instrument ID:** GC-W

Data File: W0284.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	683364	645443	5.55
Dicamba	4.82	4.75	4.89	1843437	1613396	12.48
2,4-D	5.28	5.20	5.36	735469	670387	8.85
Silvex	5.70	5.61	5.79	2926858	2568091	12.26
2,4,5-T	5.86	5.77	5.95	2948062	2586173	12.28
2,4-DB	6.16	6.07	6.25	512412	511896	0.10
Dinoseb	6.89	6.80	6.98	2268610	2095499	7.63

GC Column (2nd): RTX-CLP2

Data File: W0284.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.18	2.10	2.24	88807	91289	2.80
Dicamba	5.02	4.95	5.09	232873	226211	2.86
2,4-D	5.53	5.45	5.61	74900	77465	3.43
Silvex	5.98	5.89	6.07	382751	369831	3.38
2,4,5-T	6.22	6.13	6.31	359816	372570	3.54
2,4-DB	6.55	6.46	6.64	45784	49907	9.00
Dinoseb	6.79	6.70	6.88	251657	212874	15.41

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 09/19/2013 **Instrument ID:** GC-W
GC Column (1st): RTX-CLP1

Data File: W0294.D W0293.D W0292.D W0291.D W0290.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	200	250	400	RT	FROM	TO
Dalapon	2.21	2.21	2.21	2.21	2.21	2.21	2.14	2.28
Dicamba	4.82	4.82	4.82	4.82	4.82	4.82	4.75	4.89
2,4-D	5.29	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.70	5.70	5.70	5.70	5.61	5.79
2,4,5-T	5.87	5.87	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.17	6.17	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.89	6.89	6.89	6.89	6.89	6.89	6.80	6.98

GC Column (2nd): RTX-CLP2

Data File: W0294.C W0293.C W0292.C W0291.C W0290.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	200	250	400	RT	FROM	TO
Dalapon	2.17	2.17	2.18	2.18	2.18	2.18	2.11	2.25
Dicamba	5.02	5.02	5.02	5.02	5.02	5.02	4.95	5.09
2,4-D	5.54	5.53	5.53	5.53	5.53	5.53	5.45	5.61
2,4,5-TP (Silvex)	5.99	5.99	5.98	5.98	5.98	5.98	5.89	6.07
2,4,5-T	6.22	6.22	6.22	6.21	6.21	6.22	6.13	6.31
2,4-DB	6.56	6.56	6.55	6.55	6.55	6.55	6.46	6.64
Dinoseb	6.79	6.79	6.79	6.79	6.79	6.79	6.70	6.88

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 09/19/2013 **Instrument ID:** GC-W

GC Column (1st): RTX-CLP1

Data File: W0294.D W0293.D W0292.D W0291.D W0290.D

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	667410	660186	644212	791023	664098	685386	8.71
Dicamba	1730473	1710168	1671681	2107998	1810946	1806253	9.75
2,4-D	765989	693648	669959	743691	634457	701549	7.64
Silvex	2670698	2673622	2647711	3376779	2461358	2766033	12.75
2,4,5-T	2875063	2774216	2669047	3296605	2338229	2790632	12.45
2,4-DB	524870	509783	460705	538972	496935	506253	5.92
Dinoseb	2168991	2000882	1927554	2415395	2011712	2104907	9.24

GC Column (2nd): RTX-CLP2

Data File: W0294.C W0293.C W0292.C W0291.C W0290.C

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	87415	87751	88934	114231	99195	95505	12.09
Dicamba	243882	244363	221794	277287	239037	245273	8.20
2,4-D	74904	76134	69691	84328	70649	75141	7.74
Silvex	365852	377006	363589	451341	382642	388086	9.33
2,4,5-T	342958	353202	339329	418880	354965	361867	9.00
2,4-DB	45387	47160	41110	52013	43943	45922	8.84
Dinoseb	223573	232962	226434	292018	248969	244791	11.51

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/25/2013 **Instrument ID:** GC-W

Data File: W0297.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	668209	2.51
Dicamba	4.82	4.75	4.89	1806253	1768725	2.08
2,4-D	5.28	5.20	5.36	701549	728872	3.89
Silvex	5.70	5.61	5.79	2766033	2841728	2.74
2,4,5-T	5.86	5.77	5.95	2790632	2859491	2.47
2,4-DB	6.16	6.07	6.25	506253	497025	1.82
Dinoseb	6.89	6.80	6.98	2104907	2109462	0.22

GC Column (2nd): RTX-CLP2

Data File: W0297.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.17	2.11	2.25	95505	97502	2.09
Dicamba	5.02	4.95	5.09	245273	255966	4.36
2,4-D	5.53	5.45	5.61	75141	80564	7.22
Silvex	5.99	5.89	6.07	388086	415508	7.07
2,4,5-T	6.22	6.13	6.31	361867	387668	7.13
2,4-DB	6.56	6.46	6.64	45922	48996	6.69
Dinoseb	6.79	6.70	6.88	244791	262169	7.10

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/25/2013 **Instrument ID:** GC-W

Data File: W0308.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	594590	13.25
Dicamba	4.82	4.75	4.89	1806253	1535807	14.97
2,4-D	5.28	5.20	5.36	701549	621818	11.36
Silvex	5.70	5.61	5.79	2766033	2498631	9.67
2,4,5-T	5.86	5.77	5.95	2790632	2539063	9.01
2,4-DB	6.16	6.07	6.25	506253	569449	12.48
Dinoseb	6.89	6.80	6.98	2104907	1860140	11.63

GC Column (2nd): RTX-CLP2

Data File: W0308.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.17	2.11	2.25	95505	91611	4.08
Dicamba	5.02	4.95	5.09	245273	233812	4.67
2,4-D	5.53	5.45	5.61	75141	75778	0.85
Silvex	5.99	5.89	6.07	388086	391634	0.91
2,4,5-T	6.22	6.13	6.31	361867	374686	3.54
2,4-DB	6.56	6.46	6.64	45922	45533	0.85
Dinoseb	6.79	6.70	6.88	244791	227867	6.91

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.93

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKS130911-14	09/16/2013	12:58	4.74		4.93	
Herb	LCSS130911-14	09/16/2013	13:12	4.73		4.92	
SEPTIC_DIS	08775-001	09/16/2013	13:26	4.73		4.92	
Herb	08775-001MS	09/16/2013	13:40	4.73		4.92	
Herb	08775-001MSD	09/16/2013	13:54	4.73		4.92	
SEPTIC_DIS	08775-003	09/16/2013	14:08	4.73		4.92	
FLOOR_DRAI	08775-005	09/16/2013	14:22	4.73		4.92	
FLOOR_DRAI	08775-007	09/16/2013	14:36	4.73		4.92	
PESTICIDE_	08775-009	09/16/2013	14:50	4.73		4.92	
PESTICIDE_	08775-010	09/16/2013	15:04	4.73		4.92	
PESTICIDE_	08775-011	09/16/2013	15:33	4.73		4.92	
PESTICIDE_	08775-012	09/16/2013	15:47	4.73		4.92	
FERTILIZER	08775-013	09/16/2013	16:01	4.73		4.92	
FERTILIZER	08775-014	09/16/2013	16:15	4.73		4.92	
FERTILIZER	08775-015	09/16/2013	16:29	4.73		4.92	
SEPTIC_TAN	08775-018	09/16/2013	16:43	4.73		4.92	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.93

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKS130924-04	09/25/2013	19:20	4.74		4.93	
AOC-4/7.5-Herb	09135-005	09/25/2013	19:34	4.74		4.92	
	LCSS130924-04	09/25/2013	20:16	4.73		4.92	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : W0306.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 19:34
Operator : JS
Sample : AOC-4/7.5-,09135-005,S,15.46g,9.40,09/24/13,1
Misc : 130924-04,09/16/13,09/17/13,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 26 10:11:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.92	79540133	16020663	40.088	60.507 #
Spiked Amount 100.000			Recovery =		40.09%	60.51%
Target Compounds						

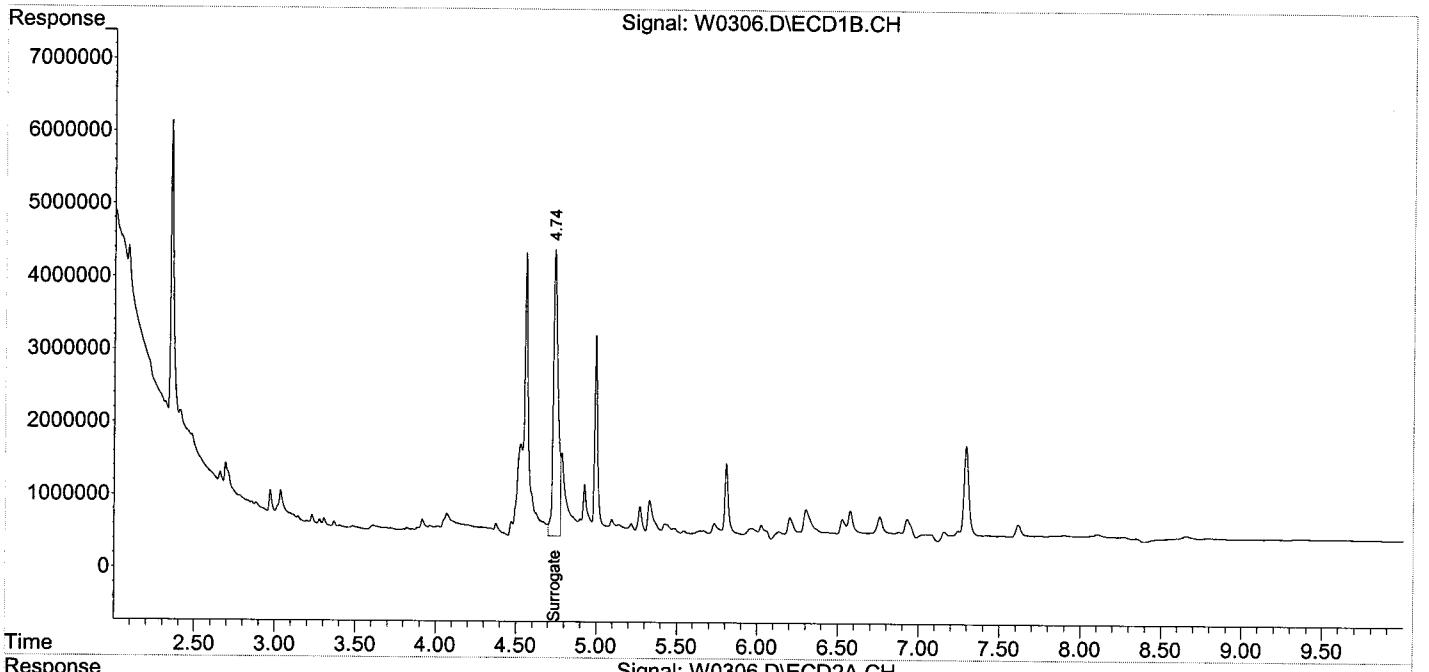
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

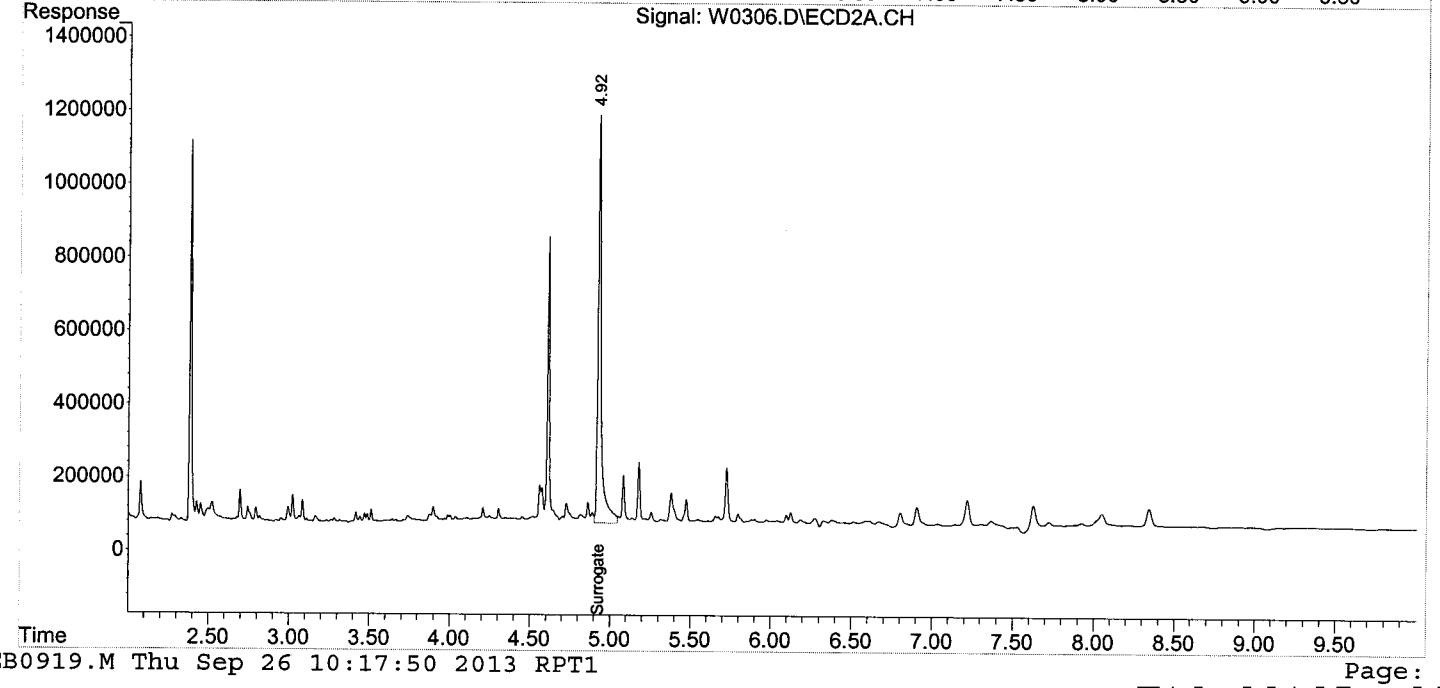
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : W0306.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 19:34
Operator : JS
Sample : AOC-4/7.5-,09135-005,S,15.46g,9.40,09/24/13,1
Misc : 130924-04,09/16/13,09/17/13,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 26 10:11:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKS130911-14
Client ID: Herb
Date Received: NA
Date Extracted: 09/11/2013
Date Analyzed: 09/16/2013
Data file: W0268.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.00835	0.00334
Dicamba	ND		0.00835	0.00334
2,4-D	ND		0.00835	0.00334
2,4,5-TP (Silvex)	ND		0.00835	0.00334
2,4,5-T	ND		0.00835	0.00334
2,4-DB	ND		0.00835	0.00334
Dinoseb	ND		0.00835	0.00334

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKS130924-04
Client ID: Herb
Date Received: NA
Date Extracted: 09/24/2013
Date Analyzed: 09/25/2013
Data file: W0305.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.00835	0.00334
Dicamba	ND		0.00835	0.00334
2,4-D	ND		0.00835	0.00334
2,4,5-TP (Silvex)	ND		0.00835	0.00334
2,4,5-T	ND		0.00835	0.00334
2,4-DB	ND		0.00835	0.00334
Dinoseb	ND		0.00835	0.00334

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : W0305.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 19:20
Operator : JS
Sample : Herb,BLKS130924-04,S,30.00g,0,09/24/13,1
Misc : NA,NA,NA,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 26 10:11:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.93	156.7E6	21079141	78.978	79.613
Spiked Amount 100.000			Recovery	=	78.98%	79.61%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

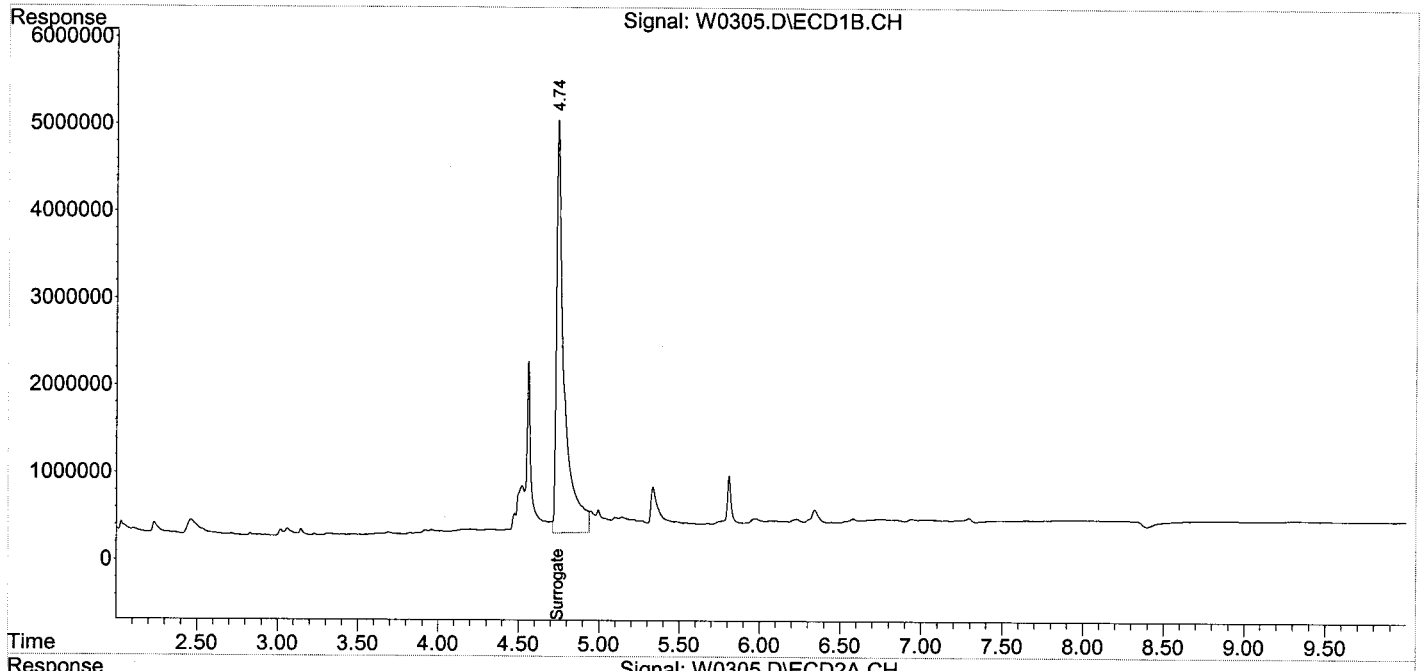
E13-09135 0258

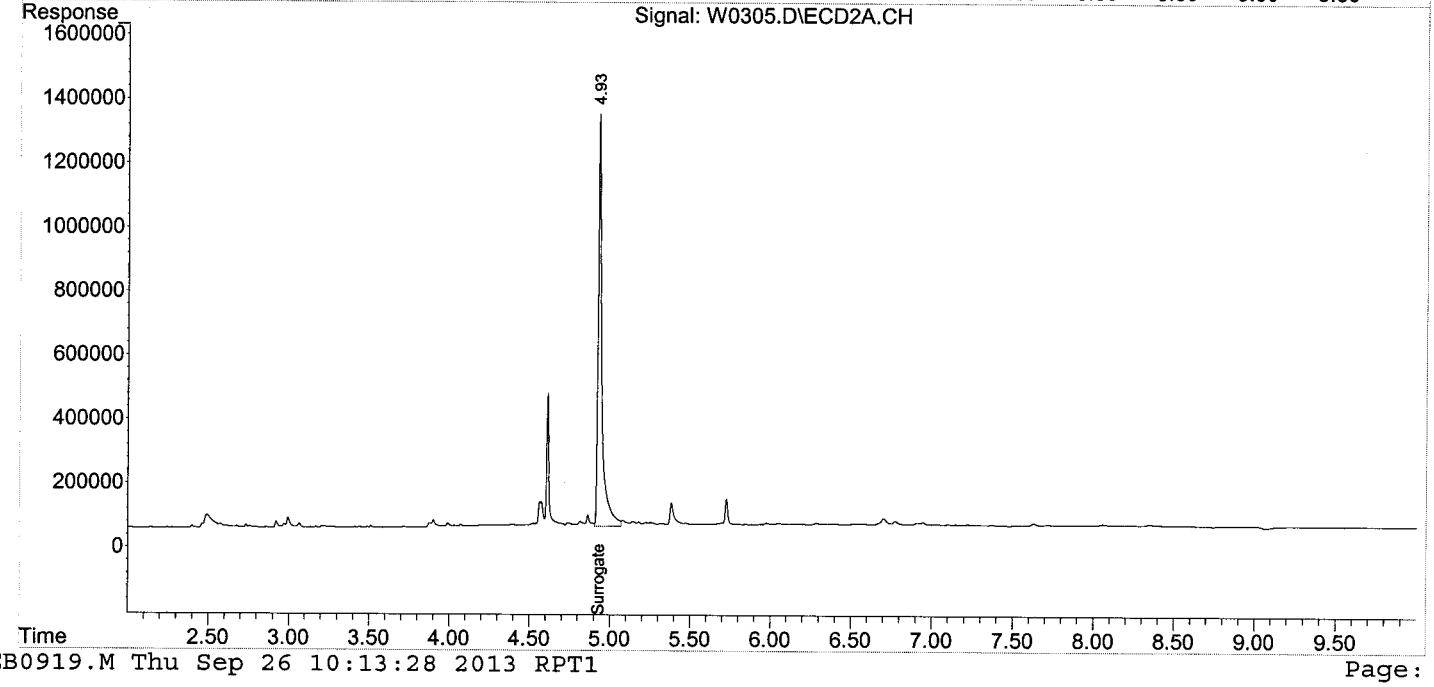
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : W0305.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 19:20
Operator : JS
Sample : Herb,BLKS130924-04,S,30.00g,0,09/24/13,1
Misc : NA,NA,NA,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 26 10:11:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





EXTRACTABLE PETROLEUM HYDROCARBON

EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH-C40 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Client ID	Lab Sample ID	Matrix	COD % rec	#	OTP % rec	#
NJ-EPH-C	BLKS130919-06	SOIL	74		75	
NJ-EPH-C	LCSS130919-06	SOIL	90		93	
NJ-EPH-C	LCSDS130919-06	SOIL	89		91	
AOC-2-1/	09135-001	SOIL	68		74	
AOC-2-2/	09135-002	SOIL	56		56	
AOC-2-3/	09135-003	SOIL	69		87	
C-1_WARE	09196-001	SOLID	66		76	
AOC-8/12	09197-007	SOIL	65		69	
AOC-12-1	09197-008	SOIL	74		81	
AOC-12-2	09197-009	SOIL	53		61	
AOC-12-3	09198-003	SOIL	80		86	
AOC-12-4	09198-004	SOIL	80		86	
AOC-12-4	09198-4D	SOIL	81		88	
NJ-EPH-C	09198-004MS	SOIL	76		78	
AOC-4/7.	09135-005	SOIL	63		67	
AOC-7-1/	09197-003	SOIL	66		72	
AOC-6/18	09197-010	SOIL	54		57	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130919-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0809.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	100	0.00	36	36	35	35	3
n-Decane (C10)	100	0.00	55	55	55	55	0
n-Dodecane (C12)	100	0.00	72	72	71	71	1
n-Tetradecane (C14)	100	0.00	80	80	78	78	3
n-Hexadecane (C16)	100	0.00	88	88	87	87	1
n-Octadecane (C18)	100	0.00	117	117	117	117	0
n-Eicosane (C20)	100	0.00	92	92	91	91	1
n-Heneicosane (C21)	100	0.00	112	112	115	115	3
n-Docosane (C22)	100	0.00	98	98	96	96	2
n-Tetracosane (C24)	100	0.00	92	92	90	90	2
n-Hexacosane (C26)	100	0.00	94	94	93	93	1
n-Octacosane (C28)	100	0.00	96	96	88	88	9
n-Triacontane (C30)	100	0.00	92	92	91	91	1
n-Dotriacontane (C32)	100	0.00	87	87	86	86	1
n-Tetratriacontane (C34)	100	0.00	86	86	84	84	2
n-Hexatriacontane (C36)	100	0.00	70	70	68	68	3
n-Octatriacontane (C38)	100	0.00	61	61	59	59	3
n-Tetracontane (C40)	100	0.00	58	58	56	56	4
C9-C40*	3600	0.00	3202	89	3157	88	1

*Includes Aromatic Compounds

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09198-004MS
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0823.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.6

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS
n-Nonane (C9)	100	0.00	32	32
n-Decane (C10)	100	0.00	48	48
n-Dodecane (C12)	100	0.00	60	60
n-Tetradecane (C14)	100	0.00	66	66
n-Hexadecane (C16)	100	0.00	72	72
n-Octadecane (C18)	100	0.00	92	92
n-Eicosane (C20)	100	0.00	76	76
n-Heneicosane (C21)	100	0.00	94	94
n-Docosane (C22)	100	0.00	80	80
n-Tetracosane (C24)	100	0.00	74	74
n-Hexacosane (C26)	100	0.00	76	76
n-Octacosane (C28)	100	0.00	76	76
n-Triacontane (C30)	100	0.00	74	74
n-Dotriacontane (C32)	100	0.00	71	71
n-Tetratriacontane (C34)	100	0.00	72	72
n-Hexatriacontane (C36)	100	0.00	60	60
n-Octatriacontane (C38)	100	0.00	49	49
n-Tetracontane (C40)	100	0.00	46	46
C9-C40*	3600	264.26	2700	68

*Includes Aromatic Compounds

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: AOC-12-4
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Lab ID: 09198-004
Sample wt/vol: 10.0g
Date Analyzed: 09/24/2013
Aliphatics Sample Data file: Z0821.D
Dilution Factor: 1

GC Column: RTX-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 19.6
Lab ID: 09198-4D
Sample wt/vol: 10.0g
Date Analyzed: 09/24/2013
Aliphatics Sample Dup Data file: Z0822.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C40	32.9	33.6	2

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NC Not calculable

NJ-EPH-C40 METHOD BLANK SUMMARY

Lab File ID: Z0807.D Instrument ID: GC-Z

Date Extracted: 09/19/2013 Matrix: SOIL

Date Analyzed: 09/23/2013 Time Analyzed: 23:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
NJ-EPH-C	LCSS130919-06	09/23/2013	23:43
NJ-EPH-C	LCSDS130919-06	09/24/2013	00:05
AOC-2-1/	09135-001	09/24/2013	00:28
AOC-2-2/	09135-002	09/24/2013	00:50
AOC-2-3/	09135-003	09/24/2013	01:12
C-1_WARE	09196-001	09/24/2013	01:57
AOC-8/12	09197-007	09/24/2013	02:41
AOC-12-1	09197-008	09/24/2013	03:03
AOC-12-2	09197-009	09/24/2013	03:25
AOC-12-3	09198-003	09/24/2013	04:09
AOC-12-4	09198-004	09/24/2013	04:31
AOC-12-4	09198-4D	09/24/2013	04:54
NJ-EPH-C	09198-004MS	09/24/2013	05:16
AOC-4/7.	09135-005	09/24/2013	10:37
AOC-7-1/	09197-003	09/24/2013	10:59
AOC-6/18	09197-010	09/24/2013	11:22

NJ-EPH-C40 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Z **Column:** RTX-5

Surrogate RT from initial calibration :

COD 8.10 **OTP** 6.40

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#	OTP RT	#
NJ-EPH-C	BLKS130919-06	09/23/2013	23:21	8.10		6.40	
NJ-EPH-C	LCSS130919-06	09/23/2013	23:43	8.09		6.39	
NJ-EPH-C	LCSDS130919-06	09/24/2013	00:05	8.09		6.39	
AOC-2-1/	09135-001	09/24/2013	00:28	8.10		6.40	
AOC-2-2/	09135-002	09/24/2013	00:50	8.11		6.40	
AOC-2-3/	09135-003	09/24/2013	01:12	8.09		6.39	
C-1_WARE	09196-001	09/24/2013	01:57	8.09		6.39	
AOC-8/12	09197-007	09/24/2013	02:41	8.10		6.40	
AOC-12-1	09197-008	09/24/2013	03:03	8.09		6.39	
AOC-12-2	09197-009	09/24/2013	03:25	8.09		6.39	
AOC-12-3	09198-003	09/24/2013	04:09	8.09		6.39	
AOC-12-4	09198-004	09/24/2013	04:31	8.09		6.39	
AOC-12-4	09198-4D	09/24/2013	04:54	8.09		6.39	
NJ-EPH-C	09198-004MS	09/24/2013	05:16	8.09		6.39	
AOC-4/7.	09135-005	09/24/2013	10:37	8.10		6.40	
AOC-7-1/	09197-003	09/24/2013	10:59	8.09		6.40	
AOC-6/18	09197-010	09/24/2013	11:22	8.10		6.40	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0810.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:28
Operator : WP
Sample : AOC-2-1/,09135-001,S,10.01g,12.2,09/19/13,1
Misc : 130919-06,09/16/13,09/17/13,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:03:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.10	10134863	68.091 ng
Spiked Amount 100.000		Recovery =	68.09%
23) S o-Terphenyl	6.40	20521619	73.516 ng
Spiked Amount 100.000		Recovery =	73.52%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

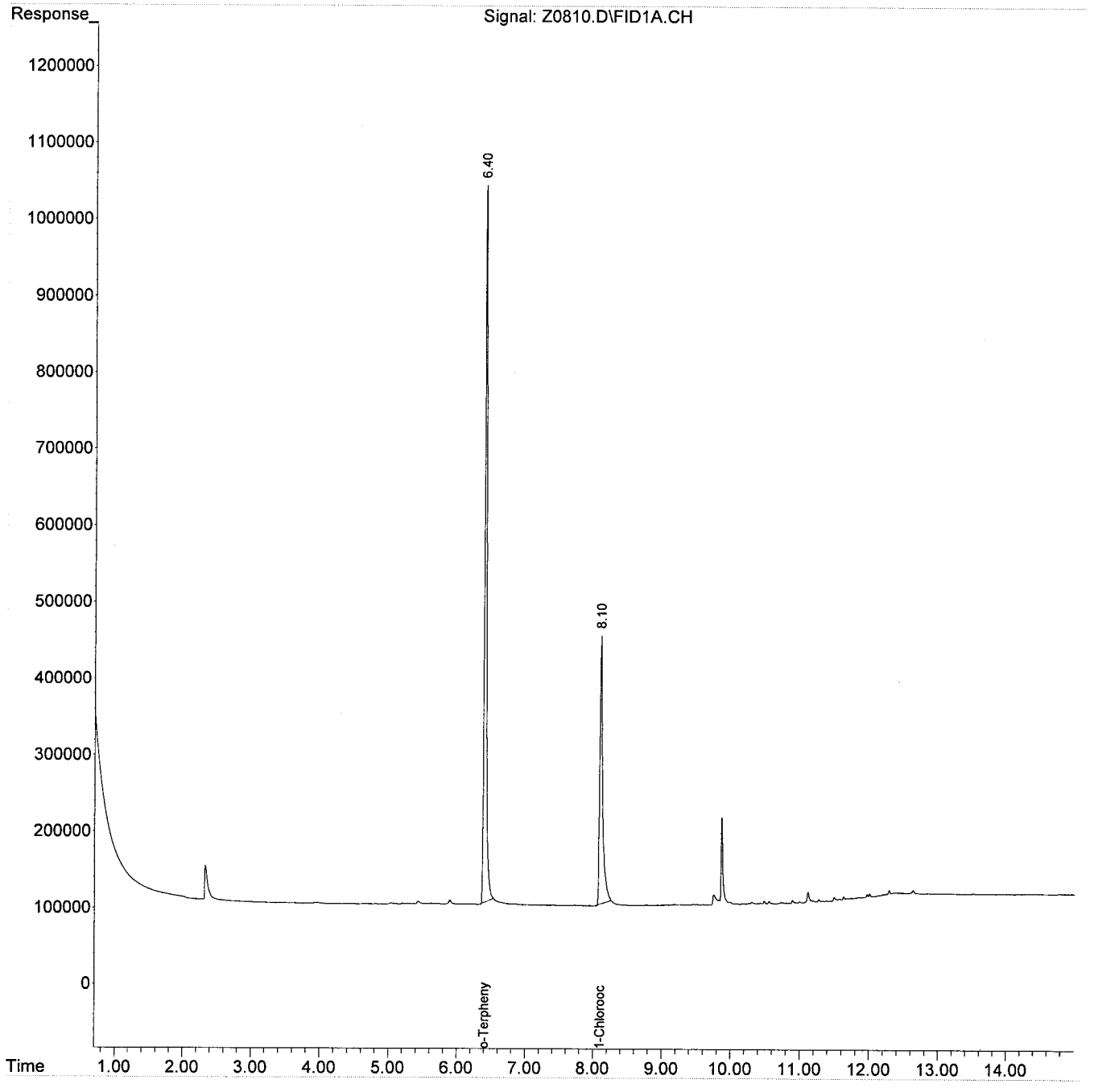
E13-09135 0269

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0810.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:28
Operator : WP
Sample : AOC-2-1/,09135-001,S,10.01g,12.2,09/19/13,1
Misc : 130919-06,09/16/13,09/17/13,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:03:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0811.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:50
Operator : WP
Sample : AOC-2-2/,09135-002,S,10.86g,13.2,09/19/13,1
Misc : 130919-06,09/16/13,09/17/13,1
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:03:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.11	8265432	55.531	ng	m
Spiked Amount 100.000		Recovery =	55.53%		
23) S o-Terphenyl	6.40	15586038	55.835	ng	
Spiked Amount 100.000		Recovery =	55.84%		
Target Compounds					

(f)=RT Delta > 1/2 Window (m)=manual int.

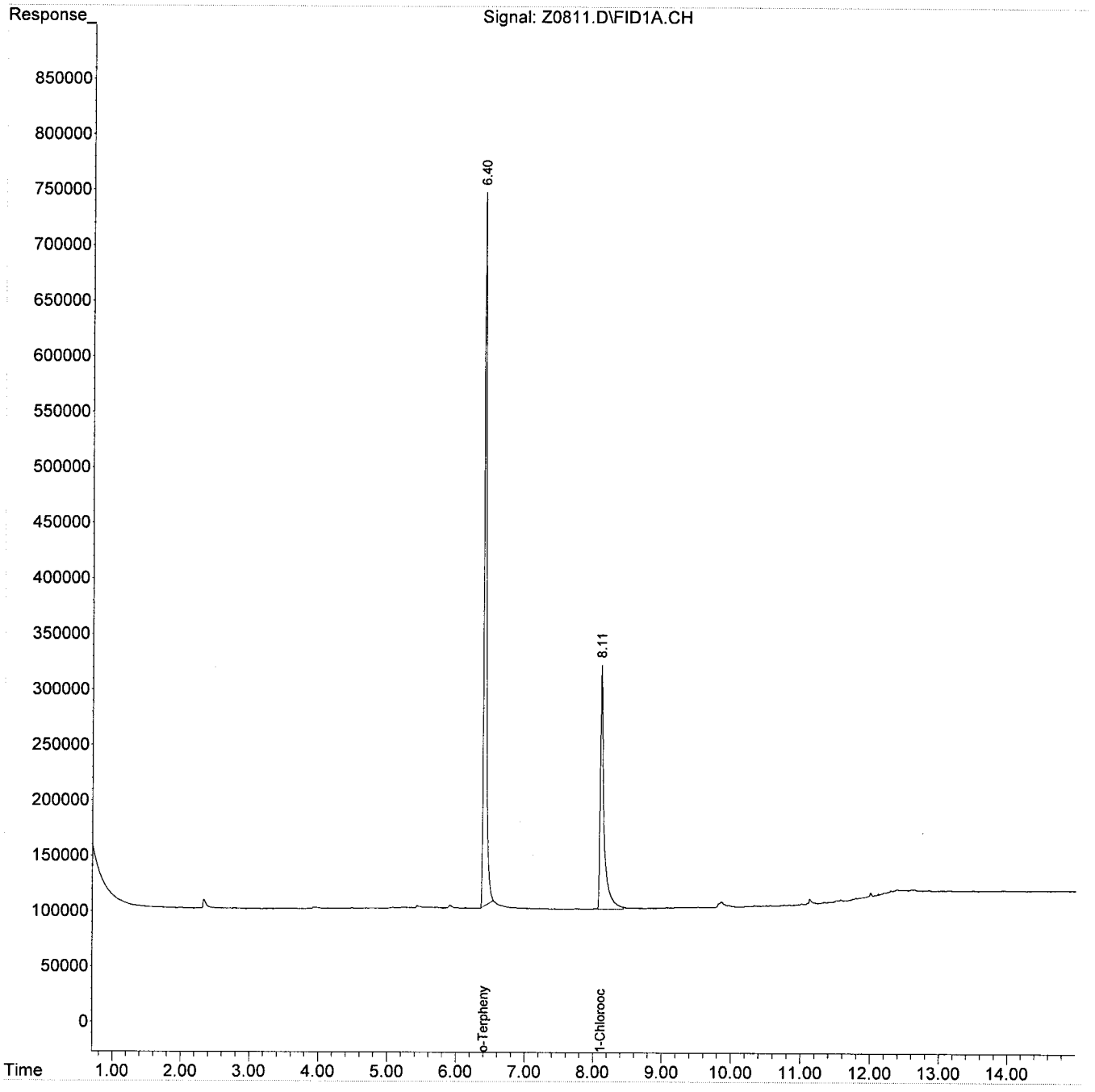
E13-09135 0271

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0811.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:50
Operator : WP
Sample : AOC-2-2/,09135-002,S,10.86g,13.2,09/19/13,1
Misc : 130919-06,09/16/13,09/17/13,1
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:03:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0812.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 1:12
Operator : WP
Sample : AOC-2-3/,09135-003,S,10.06g,12.6,09/19/13,1
Misc : 130919-06,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:04:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.09	10251865	68.877	ng	m
Spiked Amount 100.000		Recovery = 68.88%			
23) S o-Terphenyl	6.39	24382721	87.348	ng	m
Spiked Amount 100.000		Recovery = 87.35%			
Target Compounds					
22) H C9-C40	6.84	1829235947	6016.011	ng	

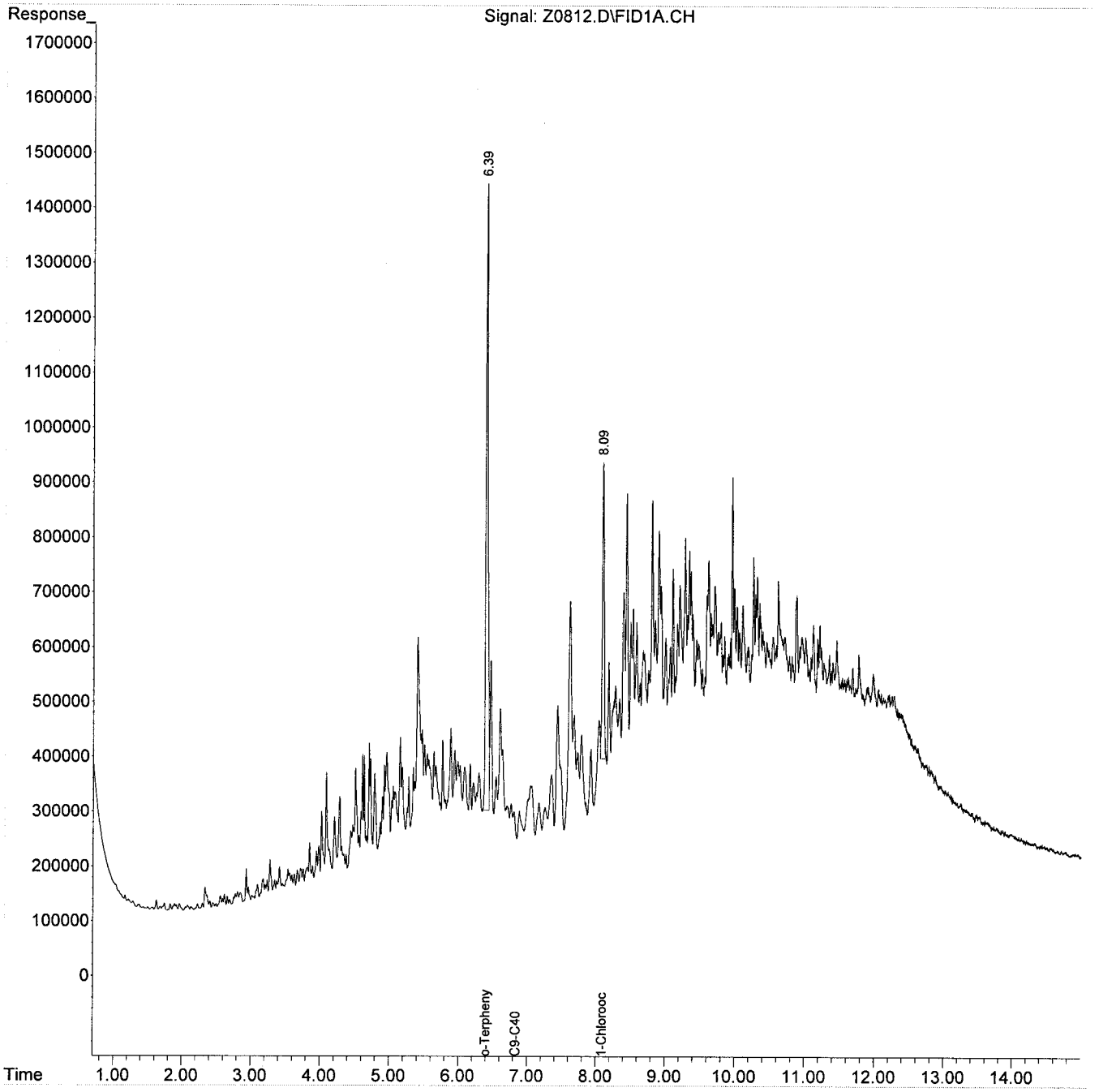
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0812.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 1:12
Operator : WP
Sample : AOC-2-3/,09135-003,S,10.06g,12.6,09/19/13,1
Misc : 130919-06,09/16/13,09/17/13,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:04:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09135 0274

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0827.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:37
Operator : WP
Sample : AOC-4/7.,09135-005,S,10.10g,9.40,09/19/13,1
Misc : 130919-06,09/16/13,09/17/13,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 11:31:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.10	9366042	62.926 ng
Spiked Amount 100.000		Recovery =	62.93%
23) S o-Terphenyl	6.40	18636066	66.762 ng
Spiked Amount 100.000		Recovery =	66.76%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

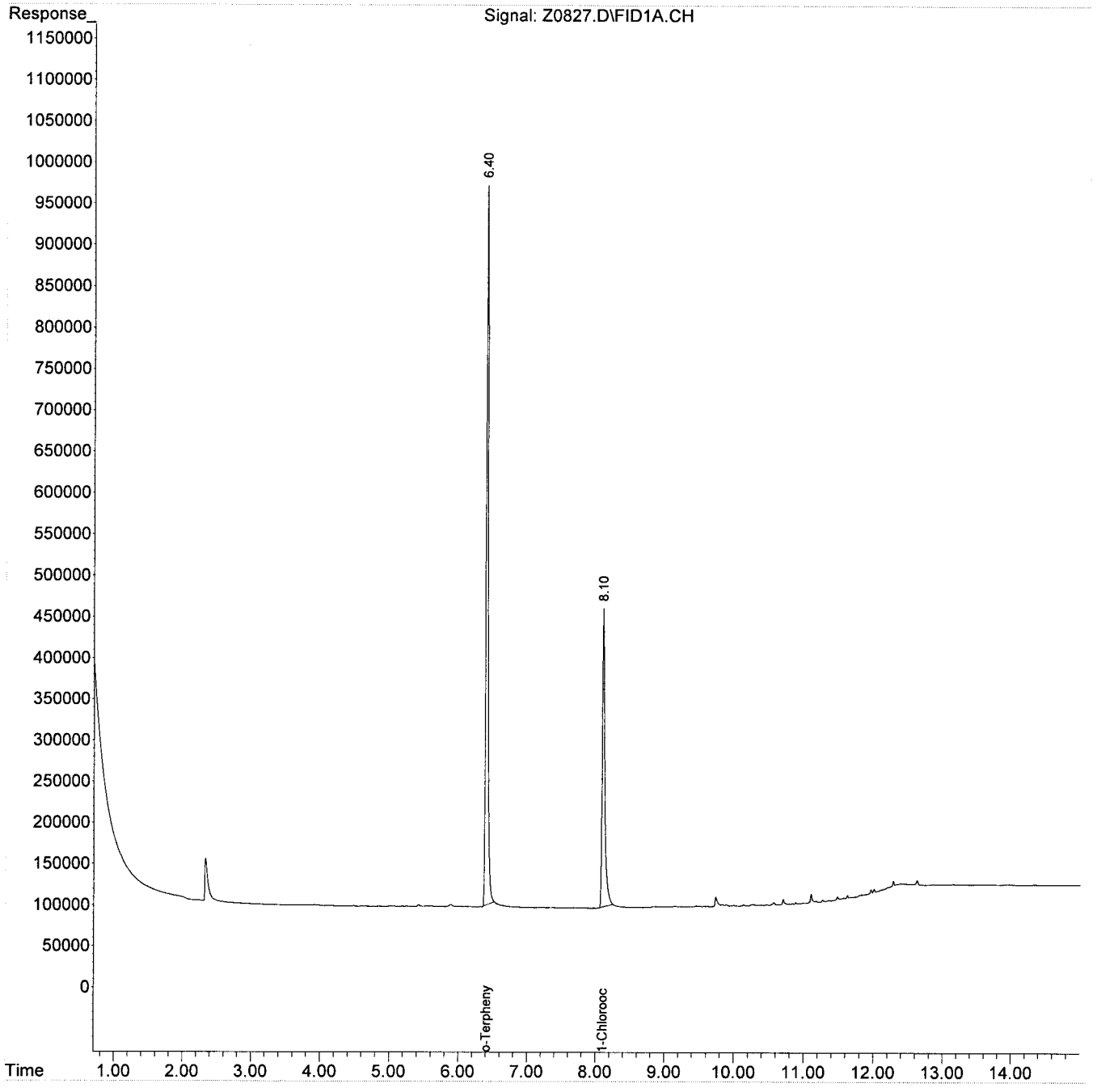
E13-09135 0275

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0827.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:37
Operator : WP
Sample : AOC-4/7.,09135-005,S,10.10g,9.40,09/19/13,1
Misc : 130919-06,09/16/13,09/17/13,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 11:31:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2013 **Instrument ID:** GC-Z

GC Column : RTX-5

Data File: Z0620.D Z0619.D Z0618.D Z0617.D Z0616.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	0.86	0.85	0.85	0.85	0.86	0.85	0.77	0.92
n-Decane (C10)	1.48	1.48	1.48	1.48	1.49	1.48	1.40	1.55
n-Dodecane (C12)	2.86	2.86	2.86	2.86	2.87	2.86	2.78	2.93
n-Tetradecane (C14)	3.99	3.98	3.98	3.99	4.00	3.99	3.91	4.06
n-Hexadecane (C16)	4.95	4.95	4.95	4.95	4.96	4.95	4.87	5.03
n-Octadecane (C18)	5.85	5.84	5.85	5.86	5.87	5.85	5.77	5.93
n-Eicosane (C20)	7.37	7.37	7.38	7.40	7.44	7.39	7.31	7.47
n-Heneicosane (C21)	8.20	8.21	8.21	8.23	8.25	8.22	8.14	8.30
n-Docosane (C22)	8.72	8.72	8.72	8.73	8.75	8.73	8.64	8.82
n-Tetracosane (C24)	9.44	9.44	9.44	9.45	9.46	9.44	9.35	9.53
n-Hexacosane (C26)	9.99	9.99	9.99	10.00	10.01	9.99	9.90	10.08
n_Octacosane (C28)	10.45	10.46	10.46	10.47	10.48	10.46	10.37	10.55
n-Triacontane (C30)	10.87	10.88	10.88	10.89	10.90	10.88	10.78	10.98
n-Dotriacontane (C32)	11.26	11.26	11.27	11.28	11.29	11.27	11.17	11.37
n-Tetratriacontane (C34)	11.62	11.62	11.63	11.64	11.65	11.63	11.53	11.73
n-Hexatriacontane (C36)	11.96	11.96	11.97	11.98	11.99	11.97	11.82	12.12
n-Octatriacontane (C38)	12.28	12.28	12.29	12.30	12.31	12.29	12.14	12.44
n-Tetracontane (C40)	12.63	12.63	12.64	12.65	12.66	12.64	12.49	12.79
C9-C28	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
C28-C40	11.88	11.88	11.88	11.88	11.88	11.88	11.78	11.98
C9-C40	6.84	6.84	6.84	6.84	6.84	6.84	6.73	6.95

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2013 **Instrument ID:** GC-Z
GC Column : RTX-5

Data File: Z0620.D Z0619.D Z0618.D Z0617.D Z0616.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	283469	245781	222628	213600	217524	236600	12.27
n-Decane (C10)	284948	250794	228937	219888	228292	242572	10.84
n-Dodecane (C12)	283254	254479	235619	228350	239954	248331	8.75
n-Tetradecane (C14)	292958	262233	244940	238899	250465	257899	8.30
n-Hexadecane (C16)	302525	271076	253476	247523	258100	266540	8.22
n-Octadecane (C18)	312599	278729	259633	254502	262169	273526	8.65
n-Eicosane (C20)	317842	283764	259515	260050	257329	275700	9.40
n-Heneicosane (C21)	315116	271746	241001	233058	244199	261024	12.86
n-Docosane (C22)	329225	295970	273388	265763	268724	286614	9.29
n-Tetracosane (C24)	328859	295249	275407	261788	263997	285060	9.77
n-Hexacosane (C26)	328174	288501	273451	258892	259561	281716	10.17
n_Octacosane (C28)	330600	291048	275549	256309	257315	282164	10.86
n-Triacontane (C30)	338690	294816	279665	255849	257557	285316	11.90
n-Dotriacontane (C32)	333280	291183	274861	249976	253652	280590	12.06
n-Tetratriacontane (C34)	320479	277464	264881	240627	246381	269967	11.79
n-Hexatriacontane (C36)	314407	271459	260404	237421	245147	265768	11.38
n-Octatriacontane (C38)	297370	257792	248667	228759	237574	254032	10.47
n-Tetracontane (C40)	279614	244758	237511	219258	230211	242270	9.45
C9-C28	4559425	3682120	3250834	3069901	3094548	3531366	17.70
C28-C40	2259469	1761685	1623431	1464425	1493221	1720446	18.81
C9-C40	7417756	5722863	5001746	4603079	4620417	5473172	21.52

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0616.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:07
Operator : WP
Sample : ALI_L5_IAS_4645,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.13	140246830	942.252 ng
Spiked Amount	100.000		Recovery	= 942.25%
23) S	o-Terphenyl	6.45	288610193	1033.913 ng
Spiked Amount	100.000		Recovery	= 1033.91%
	Target Compounds			
2) T	n-Nonane (C9)	0.86	217524124	919.373 ng
3) T	n-Decane (C10)	1.49	228292064	941.132 ng
4) T	n-Dodecane (C12)	2.87	239953574	966.263 ng
5) T	n-Tetradecane (C14)	4.00	250464772	971.174 ng
6) T	n-Hexadecane (C16)	4.96	258099669	968.334 ng
7) T	n-Octadecane (C18)	5.87	262168727	958.477 ng
8) T	n-Eicosane (C20)	7.44	257328521	924.234 ng
9) T	n-Heneicosane (C21)	8.25	244199263	935.544 ng
10) T	n-Docosane (C22)	8.75	268723745	937.580 ng
11) T	n-Tetracosane (C24)	9.46	263997388	926.112 ng
12) T	n-Hexacosane (C26)	10.01	259560758	921.357 ng
13) T	n-Octacosane (C28)	10.48	257314862	911.933 ng
14) T	n-Triacontane (C30)	10.90	257557472	902.711 ng
15) T	n-Dotriacontane (C32)	11.29	253652207	903.995 ng
16) T	n-Tetratriacontane (C34)	11.65	246381122	912.636 ng
17) T	n-Hexatriacontane (C36)	11.99	245147189	922.412 ng
18) T	n-Octatriacontane (C38)	12.31	237574292	935.212 ng
19) T	n-Tetracontane (C40)	12.66	230210677	950.223 ng
20) H	C9-C28	5.03	3094547500	10515.845 ng
21) H	C28-C40	11.88	1493220787	5207.559 ng
22) H	C9-C40	6.84	4620416589	15195.676 ng

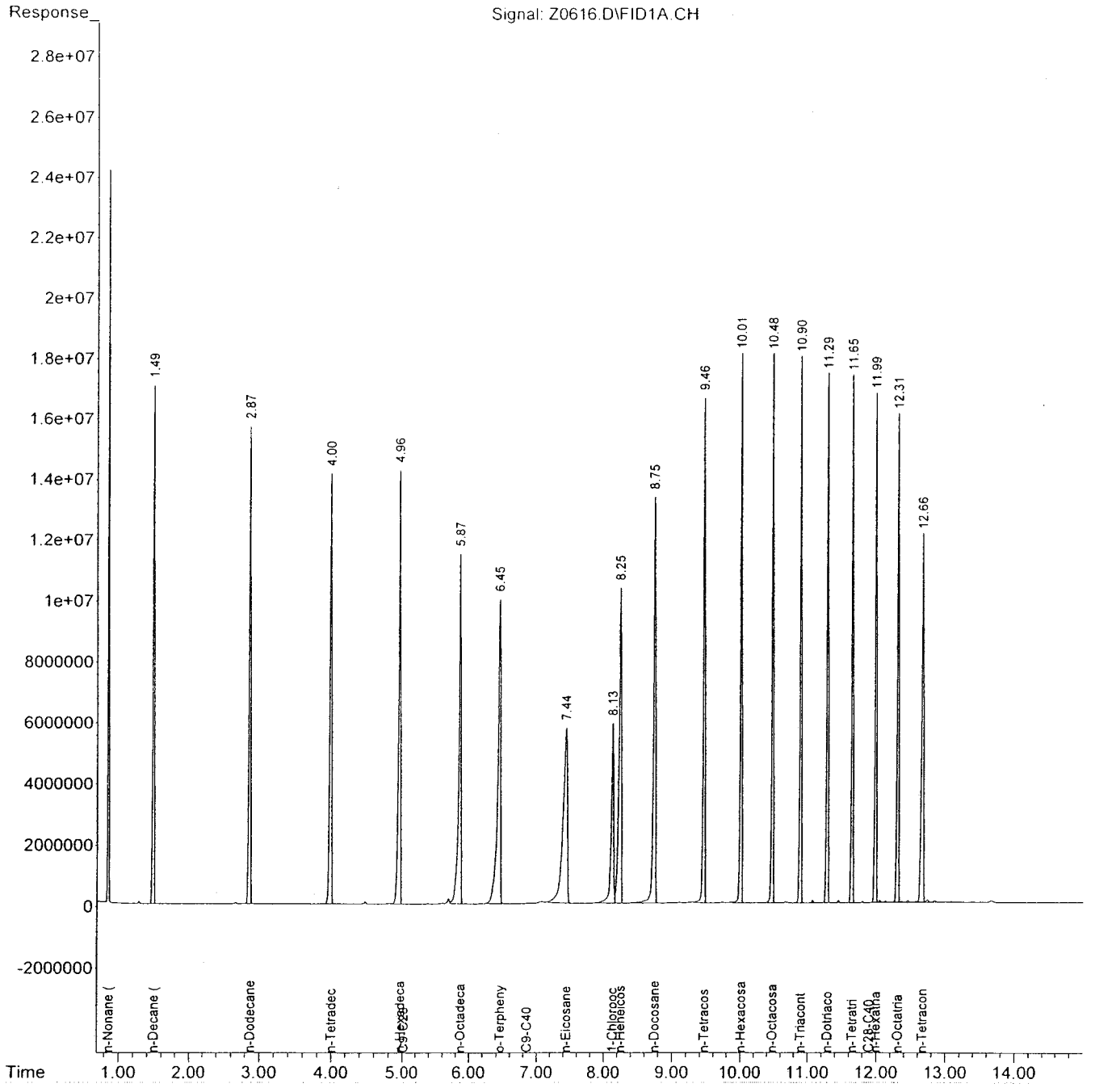
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0616.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:07
Operator : WP
Sample : ALI_L5_IAS_4645,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0617.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:30
Operator : WP
Sample : ALI_L4_IAS_4646,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.12	72120252	484.542 ng
Spiked Amount	100.000		Recovery =	484.54%
23) S	o-Terphenyl	6.43	128882295	461.706 ng
Spiked Amount	100.000		Recovery =	461.71%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	106799947	451.394 ng
3) T	n-Decane (C10)	1.48	109943930	453.243 ng
4) T	n-Dodecane (C12)	2.86	114175203	459.769 ng
5) T	n-Tetradecane (C14)	3.99	119449442	463.164 ng
6) T	n-Hexadecane (C16)	4.95	123761567	464.327 ng
7) T	n-Octadecane (C18)	5.86	127251100	465.224 ng
8) T	n-Eicosane (C20)	7.40	130024951	467.004 ng
9) T	n-Heneicosane (C21)	8.23	116528751	446.429 ng
10) T	n-Docosane (C22)	8.73	132881646	463.626 ng
11) T	n-Tetracosane (C24)	9.45	130893980	459.180 ng
12) T	n-Hexacosane (C26)	10.00	129446099	459.492 ng
13) T	n-Octacosane (C28)	10.47	128154299	454.184 ng
14) T	n-Triacontane (C30)	10.89	127924561	448.361 ng
15) T	n-Dotriacontane (C32)	11.28	124988026	445.447 ng
16) T	n-Tetratriacontane (C34)	11.64	120313584	445.661 ng
17) T	n-Hexatriacontane (C36)	11.98	118710568	446.671 ng
18) T	n-Octatriacontane (C38)	12.30	114379294	450.255 ng
19) T	n-Tetracontane (C40)	12.65	109628760	452.506 ng
20) H	C9-C28	5.03	1534950577	5216.046 ng
21) H	C28-C40	11.88	732212543	2553.568 ng
22) H	C9-C40	6.84	2301539361	7569.327 ng

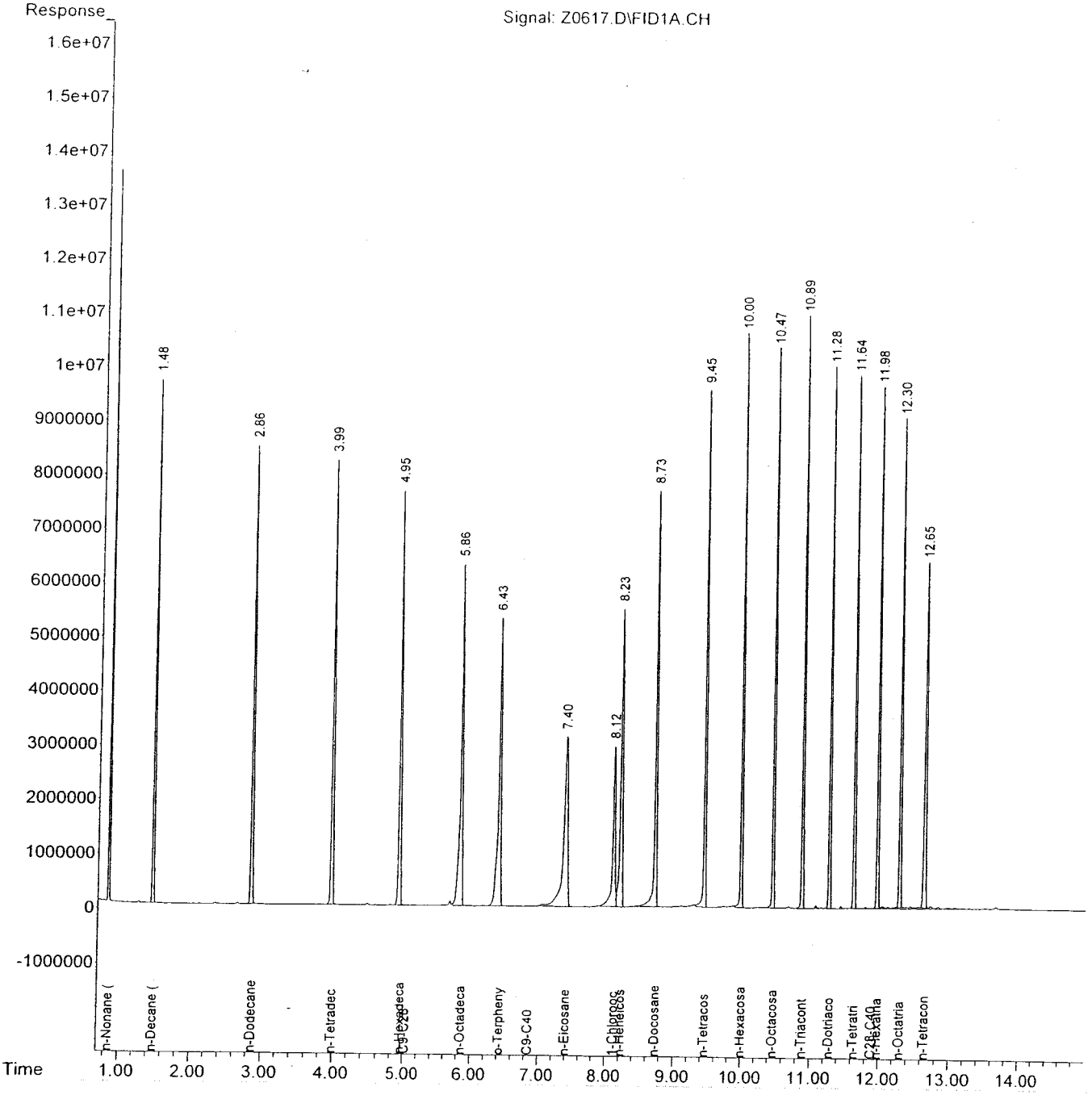
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0617.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:30
Operator : WP
Sample : ALI_L4_IAS_4646,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0618.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:52
Operator : WP
Sample : ALI_L3_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.11	37332331	250.818 ng
Spiked Amount	100.000		Recovery =	250.82%
23) S	o-Terphenyl	6.42	65723796	235.448 ng
Spiked Amount	100.000		Recovery =	235.45%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	55657073	235.237 ng
3) T	n-Decane (C10)	1.48	57234368	235.948 ng
4) T	n-Dodecane (C12)	2.86	58904859	237.203 ng
5) T	n-Tetradecane (C14)	3.98	61235033	237.438 ng
6) T	n-Hexadecane (C16)	4.95	63368933	237.747 ng
7) T	n-Octadecane (C18)	5.85	64908178	237.301 ng
8) T	n-Eicosane (C20)	7.38	64878839	233.022 ng
9) T	n-Heneicosane (C21)	8.21	60250132	230.822 ng
10) T	n-Docosane (C22)	8.72	68347013	238.464 ng
11) T	n-Tetracosane (C24)	9.44	68851793	241.534 ng
12) T	n-Hexacosane (C26)	9.99	68362768	242.666 ng
13) T	n-Octacosane (C28)	10.46	68887137	244.139 ng
14) T	n-Triacontane (C30)	10.88	69916366	245.049 ng
15) T	n-Dotriacontane (C32)	11.27	68715199	244.895 ng
16) T	n-Tetratriacontane (C34)	11.63	66220355	245.291 ng
17) T	n-Hexatriacontane (C36)	11.97	65100953	244.954 ng
18) T	n-Octatriacontane (C38)	12.29	62166859	244.720 ng
19) T	n-Tetracontane (C40)	12.64	59377647	245.089 ng
20) H	C9-C28	5.03	812708611	2761.734 ng
21) H	C28-C40	11.88	405857748	1415.416 ng
22) H	C9-C40	6.84	1250436473	4112.449 ng

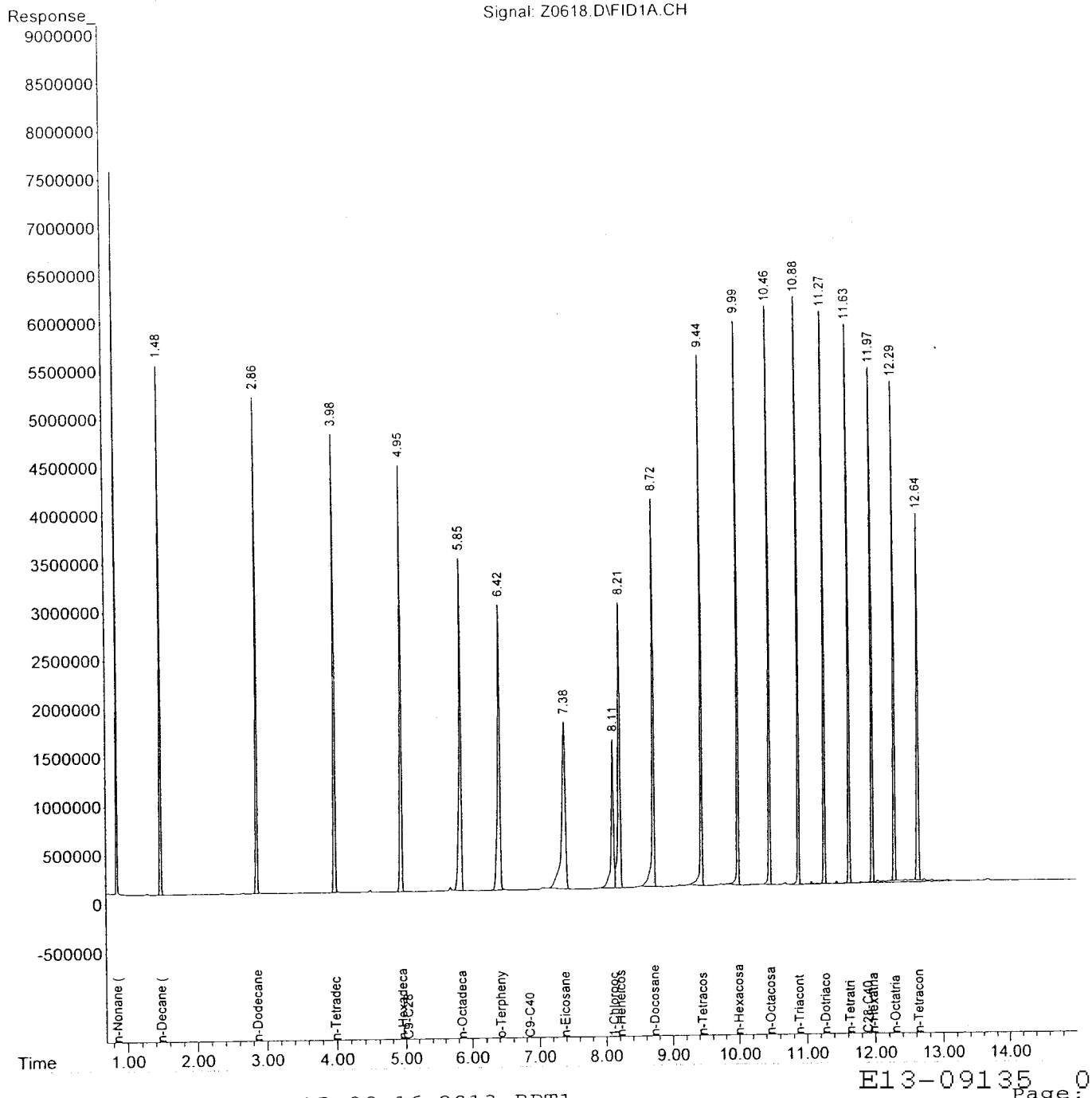
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0618.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:52
Operator : WP
Sample : ALI_L3_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0619.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 13:15
Operator : WP
Sample : ALI_L2_IAS_4648,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.11	15179352	101.983 ng
Spiked Amount	100.000		Recovery =	101.98%
23) S	o-Terphenyl	6.41	28154333	100.860 ng
Spiked Amount	100.000		Recovery =	100.86%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	24578125	103.880 ng
3) T	n-Decane (C10)	1.48	25079424	103.390 ng
4) T	n-Dodecane (C12)	2.86	25447939	102.476 ng
5) T	n-Tetradecane (C14)	3.98	26223292	101.680 ng
6) T	n-Hexadecane (C16)	4.95	27107634	101.702 ng
7) T	n-Octadecane (C18)	5.84	27872933	101.902 ng
8) T	n-Eicosane (C20)	7.37	28376356	101.918 ng
9) T	n-Heneicosane (C21)	8.21	27174616	104.108 ng
10) T	n-Docosane (C22)	8.72	29597040	103.264 ng
11) T	n-Tetracosane (C24)	9.44	29524871	103.574 ng
12) T	n-Hexacosane (C26)	9.99	28850055	102.408 ng
13) T	n-Octacosane (C28)	10.46	29104843	103.149 ng
14) T	n-Triacontane (C30)	10.88	29481620	103.330 ng
15) T	n-Dotriacontane (C32)	11.26	29118262	103.775 ng
16) T	n-Tetratriacontane (C34)	11.62	27746423	102.777 ng
17) T	n-Hexatriacontane (C36)	11.96	27145869	102.141 ng
18) T	n-Octatriacontane (C38)	12.28	25779166	101.480 ng
19) T	n-Tetracontane (C40)	12.63	24475792	101.027 ng
20) H	C9-C28	5.03	368211963	1251.252 ng
21) H	C28-C40	11.88	176168467	614.382 ng
22) H	C9-C40	6.84	572286286	1882.141 ng

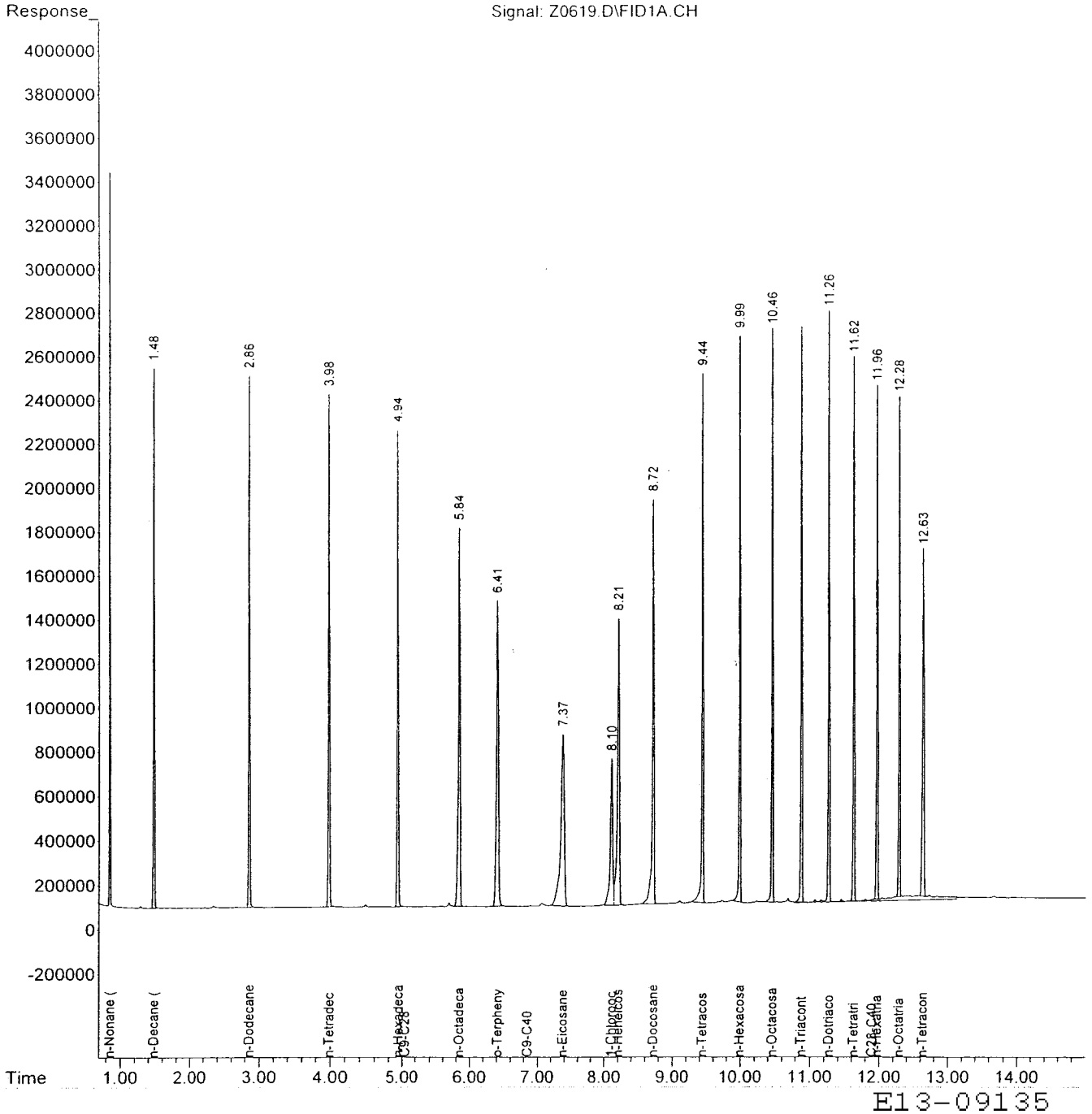
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0619.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 13:15
Operator : WP
Sample : ALI_L2_IAS_4648,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0620.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 21:18
Operator : WP
Sample : ALI_L1_IAS_4649,20_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.11	3165130	21.265 ng
Spiked Amount	100.000		Recovery =	21.27%
23) S	o-Terphenyl	6.42	6098099	21.846 ng
Spiked Amount	100.000		Recovery =	21.85%
	Target Compounds			
2) T	n-Nonane (C9)	0.86	5669379	23.962 ng
3) T	n-Decane (C10)	1.48	5698953	23.494 ng
4) T	n-Dodecane (C12)	2.86	5665085	22.813 ng
5) T	n-Tetradecane (C14)	3.99	5859159	22.719 ng
6) T	n-Hexadecane (C16)	4.95	6050492	22.700 ng
7) T	n-Octadecane (C18)	5.85	6251973	22.857 ng
8) T	n-Eicosane (C20)	7.37	6356836	22.832 ng
9) T	n-Heneicosane (C21)	8.20	6302320	24.145 ng
10) T	n-Docosane (C22)	8.72	6584503	22.973 ng
11) T	n-Tetracosane (C24)	9.44	6577176	23.073 ng
12) T	n-Hexacosane (C26)	9.99	6563484	23.298 ng
13) T	n-Octacosane (C28)	10.45	6612004	23.433 ng
14) T	n-Triacontane (C30)	10.87	6773802	23.741 ng
15) T	n-Dotriacontane (C32)	11.26	6665597	23.756 ng
16) T	n-Tetratriacontane (C34)	11.62	6409576	23.742 ng
17) T	n-Hexatriacontane (C36)	11.96	6288143	23.660 ng
18) T	n-Octatriacontane (C38)	12.28	5947409	23.412 ng
19) T	n-Tetracontane (C40)	12.63	5592270	23.083 ng
20) H	C9-C28	5.03	91188505	309.875 ng
21) H	C28-C40	11.88	45189372	157.596 ng
22) H	C9-C40	6.84	148355114	487.912 ng

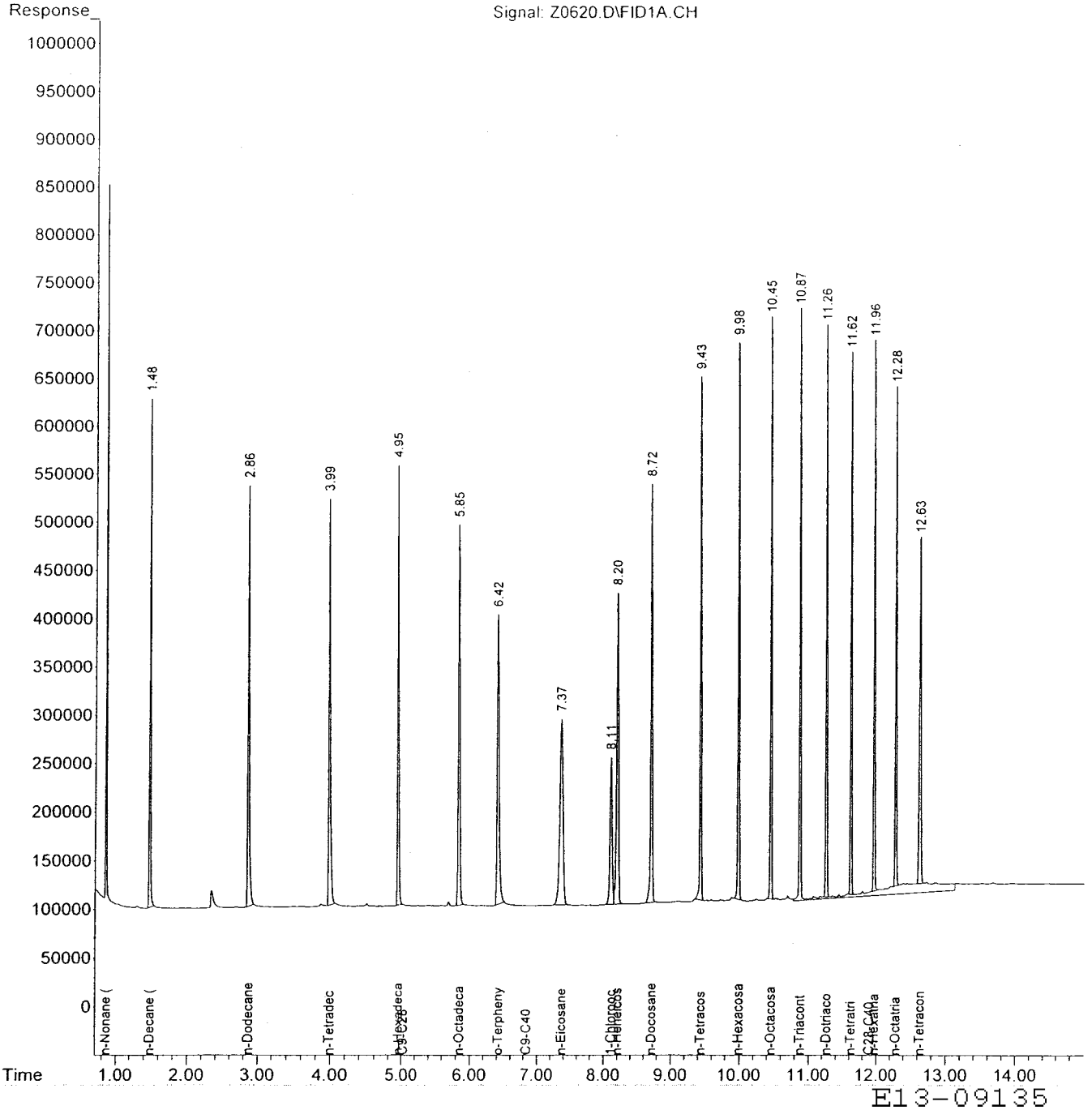
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0620.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 21:18
Operator : WP
Sample : ALI_L1_IAS_4649,20_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0621.D
Signal(s) : FID1A.CH
Acq On : 06 Sep 2013 7:23
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:40:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:09:47 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.12	42951239	288.703 ng
Spiked Amount	100.000		Recovery =	288.70%
23) S	o-Terphenyl	6.43	69689509	249.655 ng
Spiked Amount	100.000		Recovery =	249.66%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61404070	259.526 ng
3) T	n-Decane (C10)	1.48	63166886	260.405 ng
4) T	n-Dodecane (C12)	2.86	64522086	259.822 ng
5) T	n-Tetradecane (C14)	3.99	66336740	257.220 ng
6) T	n-Hexadecane (C16)	4.95	67913505	254.797 ng
7) T	n-Octadecane (C18)	5.86	69217362	253.056 ng
8) T	n-Eicosane (C20)	7.40	68290877	247.700 ng
9) T	n-Heneicosane (C21)	8.22	61348625	235.031 ng
10) T	n-Docosane (C22)	8.73	70991399	247.690 ng
11) T	n-Tetracosane (C24)	9.45	73053142	256.273 ng
12) T	n-Hexacosane (C26)	10.00	71930564	255.330 ng
13) T	n-Octacosane (C28)	10.47	70707730	250.591 ng
14) T	n-Triacontane (C30)	10.89	71843210	251.803 ng
15) T	n-Dotriacontane (C32)	11.27	69158426	246.475 ng
16) T	n-Tetratriacontane (C34)	11.64	66722781	247.152 ng
17) T	n-Hexatriacontane (C36)	11.98	66045651	248.509 ng
18) T	n-Octatriacontane (C38)	12.30	62634210	246.560 ng
19) T	n-Tetracontane (C40)	12.65	60211735	248.531 ng
20) H	C9-C28	5.03	905227511	3076.071 ng
21) H	C28-C40	11.88	411581511	1435.377 ng
22) H	C9-C40	6.84	1342962557	4416.694 ng

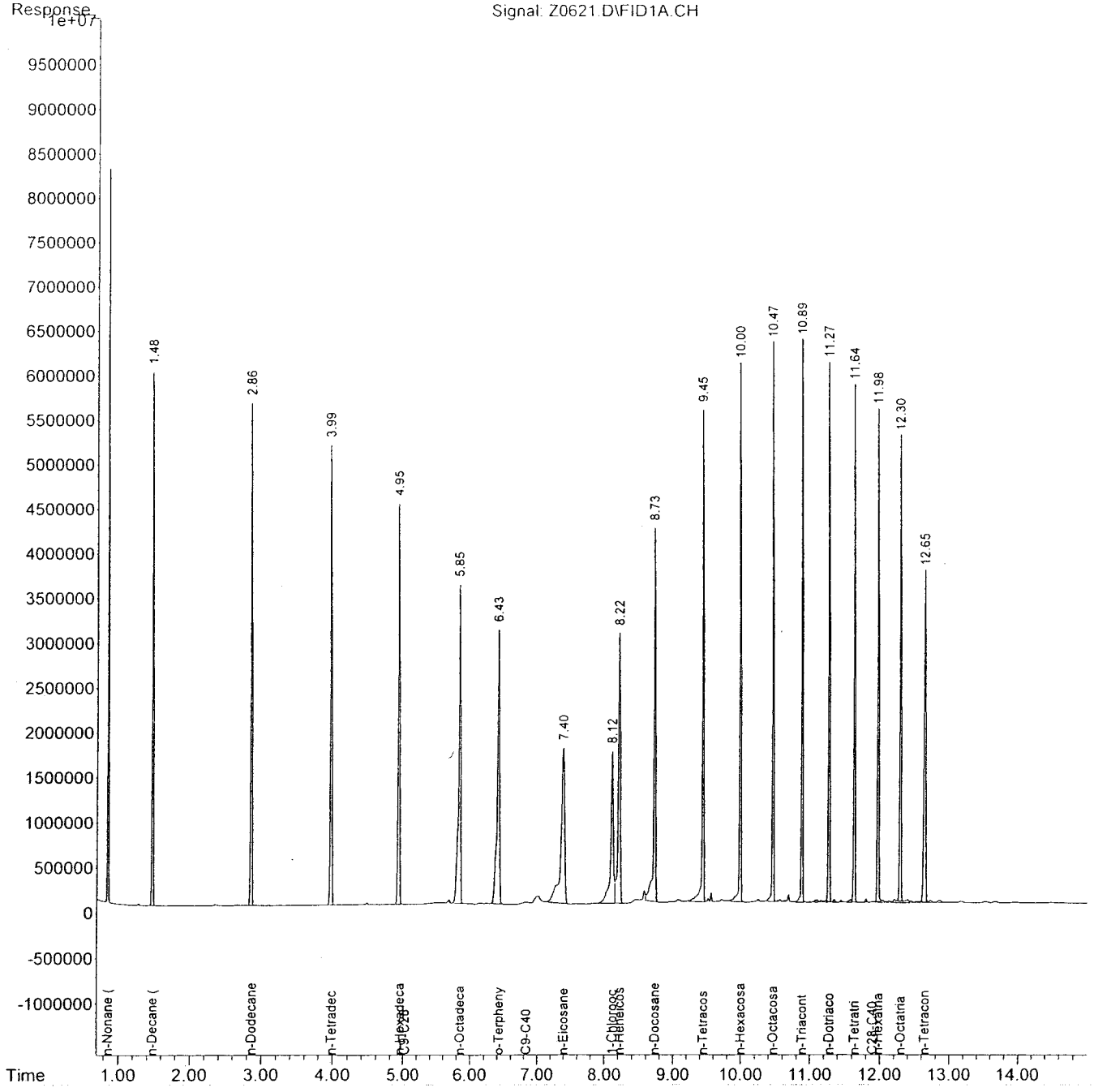
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0621.D
Signal(s) : FID1A.CH
Acq On : 06 Sep 2013 7:23
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:40:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:09:47 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09135 0291

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/23/2013 **Instrument ID:** GC-Z

Data File: Z0806.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	245837	3.90
n-Decane (C10)	1.47	1.40	1.55	242572	258993	6.77
n-Dodecane (C12)	2.85	2.78	2.93	248331	265293	6.83
n-Tetradecane (C14)	3.97	3.91	4.06	257899	275210	6.71
n-Hexadecane (C16)	4.94	4.87	5.03	266540	283168	6.24
n-Octadecane (C18)	5.84	5.77	5.93	273526	288967	5.65
n-Eicosane (C20)	7.36	7.31	7.47	275700	288924	4.80
n-Heneicosane (C21)	8.20	8.14	8.30	261024	262891	0.72
n-Docosane (C22)	8.71	8.64	8.82	286614	289669	1.07
n-Tetracosane (C24)	9.43	9.35	9.53	285060	281807	1.14
n-Hexacosane (C26)	9.98	9.90	10.08	281716	273274	3.00
n_Octacosane (C28)	10.45	10.37	10.55	282164	269570	4.46
n-Triacontane (C30)	10.87	10.78	10.98	285316	271633	4.80
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	267426	4.69
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	258968	4.07
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	256643	3.43
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	247000	2.77
n-Tetracontane (C40)	12.62	12.49	12.79	242270	237505	1.97
C9-C28	5.03	4.93	5.13	3531366	3388653	4.04
C28-C40	11.88	11.78	11.98	1720446	1575437	8.43
C9-C40	6.84	6.73	6.95	5473172	5006253	8.53

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0824.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	241627	2.12
n-Decane (C10)	1.47	1.40	1.55	242572	256540	5.76
n-Dodecane (C12)	2.84	2.78	2.93	248331	263197	5.99
n-Tetradecane (C14)	3.97	3.91	4.06	257899	273518	6.06
n-Hexadecane (C16)	4.94	4.87	5.03	266540	281610	5.65
n-Octadecane (C18)	5.84	5.77	5.93	273526	287926	5.26
n-Eicosane (C20)	7.36	7.31	7.47	275700	289863	5.14
n-Heneicosane (C21)	8.20	8.14	8.30	261024	263484	0.94
n-Docosane (C22)	8.71	8.64	8.82	286614	292669	2.11
n-Tetracosane (C24)	9.43	9.35	9.53	285060	288822	1.32
n-Hexacosane (C26)	9.98	9.90	10.08	281716	279142	0.91
n_Octacosane (C28)	10.45	10.37	10.55	282164	276823	1.89
n-Triacontane (C30)	10.87	10.78	10.98	285316	278842	2.27
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	274599	2.14
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	265960	1.48
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	263109	1.00
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	253783	0.10
n-Tetracontane (C40)	12.62	12.49	12.79	242270	246204	1.62
C9-C28	5.03	4.93	5.13	3531366	3500802	0.87
C28-C40	11.88	11.78	11.98	1720446	1641995	4.56
C9-C40	6.84	6.73	6.95	5473172	5200625	4.98

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0826.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	263986	11.57
n-Decane (C10)	1.47	1.40	1.55	242572	278221	14.70
n-Dodecane (C12)	2.84	2.78	2.93	248331	285503	14.97
n-Tetradecane (C14)	3.97	3.91	4.06	257899	296011	14.78
n-Hexadecane (C16)	4.94	4.87	5.03	266540	304300	14.17
n-Octadecane (C18)	5.84	5.77	5.93	273526	308799	12.90
n-Eicosane (C20)	7.36	7.31	7.47	275700	306442	11.15
n-Heneicosane (C21)	8.20	8.14	8.30	261024	275740	5.64
n-Docosane (C22)	8.71	8.64	8.82	286614	306873	7.07
n-Tetracosane (C24)	9.43	9.35	9.53	285060	299218	4.97
n-Hexacosane (C26)	9.98	9.90	10.08	281716	287147	1.93
n_Octacosane (C28)	10.45	10.37	10.55	282164	282118	0.02
n-Triacontane (C30)	10.87	10.78	10.98	285316	283387	0.68
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	279031	0.56
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	270880	0.34
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	268948	1.20
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	260483	2.54
n-Tetracontane (C40)	12.62	12.49	12.79	242270	252689	4.30
C9-C28	5.03	4.93	5.13	3531366	3594162	1.78
C28-C40	11.88	11.78	11.98	1720446	1665380	3.20
C9-C40	6.84	6.73	6.95	5473172	5312773	2.93

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0830.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	247694	4.69
n-Decane (C10)	1.47	1.40	1.55	242572	262075	8.04
n-Dodecane (C12)	2.84	2.78	2.93	248331	268761	8.23
n-Tetradecane (C14)	3.97	3.91	4.06	257899	278808	8.11
n-Hexadecane (C16)	4.94	4.87	5.03	266540	287440	7.84
n-Octadecane (C18)	5.84	5.77	5.93	273526	292619	6.98
n-Eicosane (C20)	7.36	7.31	7.47	275700	291488	5.73
n-Heneicosane (C21)	8.20	8.14	8.30	261024	261959	0.36
n-Docosane (C22)	8.71	8.64	8.82	286614	291973	1.87
n-Tetracosane (C24)	9.43	9.35	9.53	285060	284237	0.29
n-Hexacosane (C26)	9.98	9.90	10.08	281716	271952	3.47
n_Octacosane (C28)	10.45	10.37	10.55	282164	266681	5.49
n-Triacontane (C30)	10.87	10.78	10.98	285316	267168	6.36
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	262264	6.53
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	253462	6.11
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	252136	5.13
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	243934	3.98
n-Tetracontane (C40)	12.62	12.49	12.79	242270	236911	2.21
C9-C28	5.03	4.93	5.13	3531366	3404547	3.59
C28-C40	11.88	11.78	11.98	1720446	1563282	9.14
C9-C40	6.84	6.73	6.95	5473172	5019690	8.29

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0806.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 22:59
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	39468506	265.170 ng
Spiked Amount	100.000		Recovery =	265.17%
23) S	o-Terphenyl	6.40	72986512	261.466 ng
Spiked Amount	100.000		Recovery =	261.47%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61459143	259.759 ng
3) T	n-Decane (C10)	1.47	64748182	266.924 ng
4) T	n-Dodecane (C12)	2.85	66323285	267.076 ng
5) T	n-Tetradecane (C14)	3.97	68802429	266.781 ng
6) T	n-Hexadecane (C16)	4.94	70792086	265.597 ng
7) T	n-Octadecane (C18)	5.84	72241726	264.113 ng
8) T	n-Eicosane (C20)	7.36	72230894	259.428 ng
9) T	n-Heneicosane (C21)	8.20	65722699	251.788 ng
10) T	n-Docosane (C22)	8.71	72417365	252.665 ng
11) T	n-Tetracosane (C24)	9.43	70451679	247.147 ng
12) T	n-Hexacosane (C26)	9.98	68318515	242.509 ng
13) T	n-Octacosane (C28)	10.45	67392619	238.842 ng
14) T	n-Triacontane (C30)	10.87	67908365	238.011 ng
15) T	n-Dotriacontane (C32)	11.26	66856389	238.270 ng
16) T	n-Tetratriacontane (C34)	11.62	64741968	239.815 ng
17) T	n-Hexatriacontane (C36)	11.96	64160801	241.417 ng
18) T	n-Octatriacontane (C38)	12.28	61750077	243.079 ng
19) T	n-Tetracontane (C40)	12.62	59376269	245.083 ng
20) H	C9-C28	5.03	847163218	2878.817 ng
21) H	C28-C40	11.88	393859140	1373.571 ng
22) H	C9-C40	6.84	1251563174	4116.154 ng

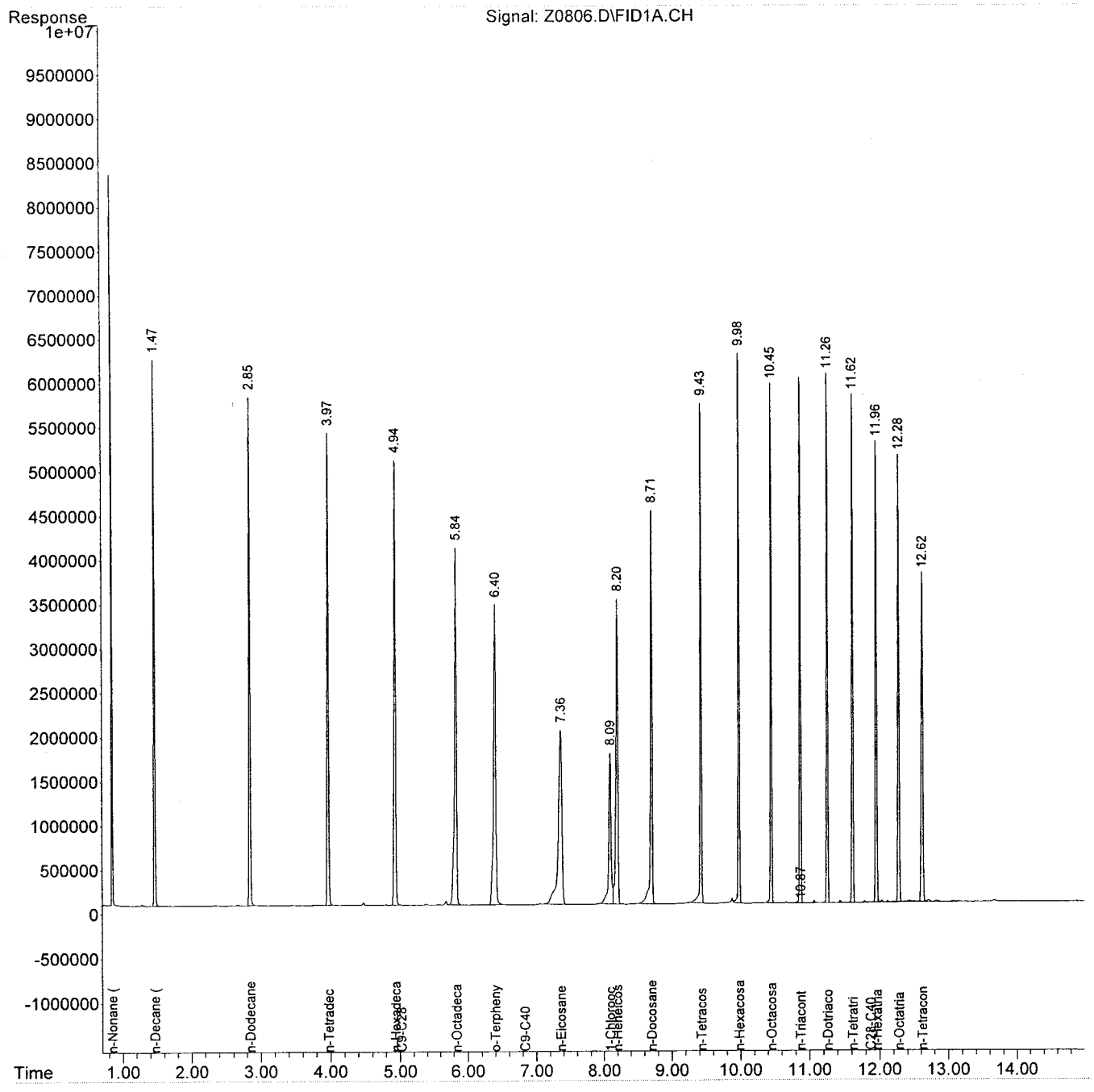
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0806.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 22:59
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09195

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0824.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:38
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	40269064	270.549 ng
Spiked Amount	100.000		Recovery =	270.55%
23) S	o-Terphenyl	6.40	73357159	262.794 ng
Spiked Amount	100.000		Recovery =	262.79%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	60406859	255.312 ng
3) T	n-Decane (C10)	1.47	64134984	264.396 ng
4) T	n-Dodecane (C12)	2.84	65799275	264.966 ng
5) T	n-Tetradecane (C14)	3.97	68379499	265.141 ng
6) T	n-Hexadecane (C16)	4.94	70402422	264.135 ng
7) T	n-Octadecane (C18)	5.84	71981588	263.161 ng
8) T	n-Eicosane (C20)	7.36	72465823	260.272 ng
9) T	n-Heneicosane (C21)	8.20	65871049	252.356 ng
10) T	n-Docosane (C22)	8.71	73167350	255.282 ng
11) T	n-Tetracosane (C24)	9.43	72205574	253.300 ng
12) T	n-Hexacosane (C26)	9.98	69785502	247.716 ng
13) T	n-Octacosane (C28)	10.45	69205716	245.268 ng
14) T	n-Triacontane (C30)	10.87	69710536	244.328 ng
15) T	n-Dotriacontane (C32)	11.26	68649802	244.662 ng
16) T	n-Tetratriacontane (C34)	11.62	66490014	246.290 ng
17) T	n-Hexatriacontane (C36)	11.96	65777252	247.499 ng
18) T	n-Octatriacontane (C38)	12.28	63445745	249.754 ng
19) T	n-Tetracontane (C40)	12.62	61551081	254.060 ng
20) H	C9-C28	5.03	875200428	2974.093 ng
21) H	C28-C40	11.88	410498636	1431.601 ng
22) H	C9-C40	6.84	1300156248	4275.968 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

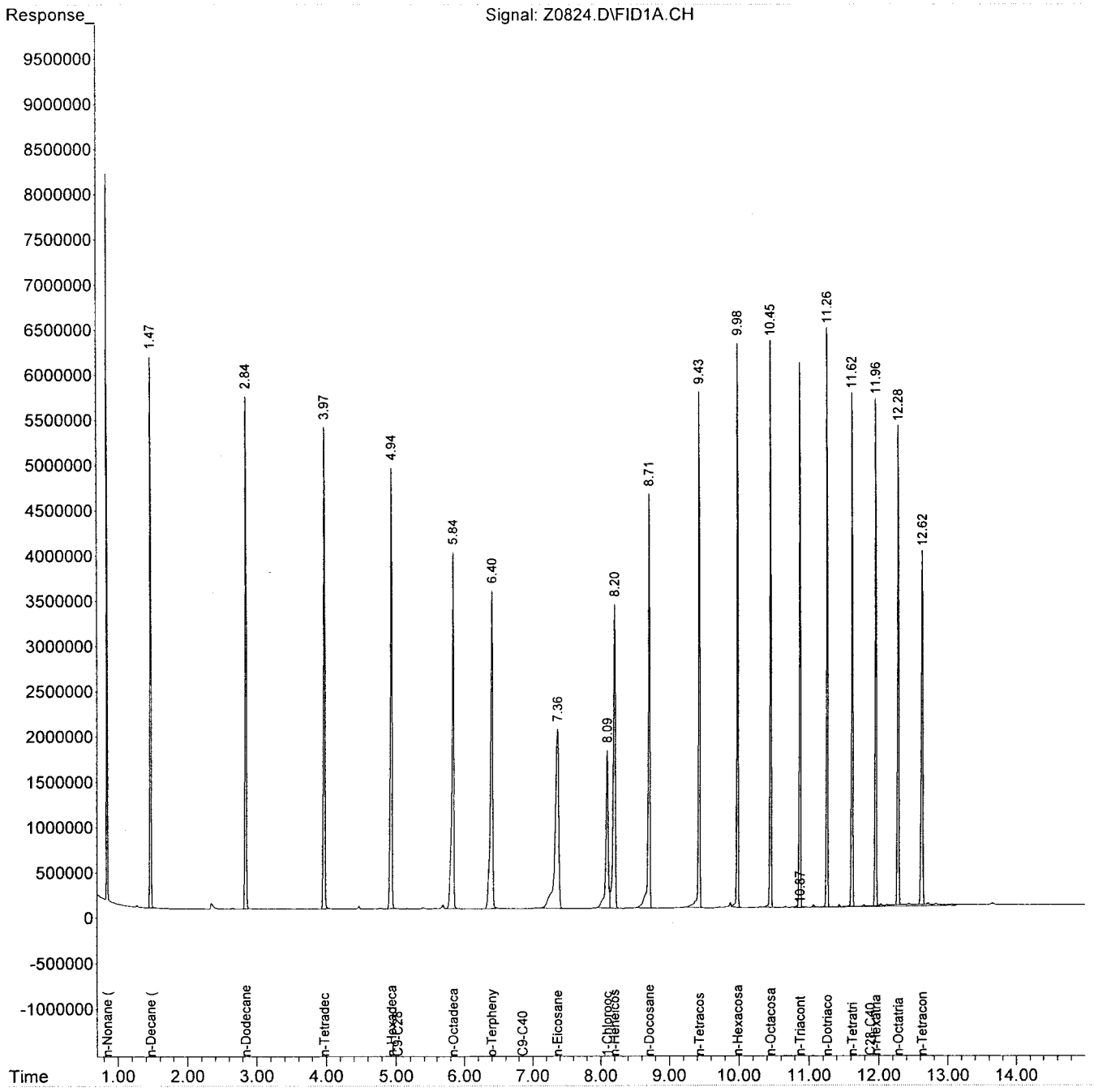
E13-09135 0298

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0824.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:38
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0826.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:08
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:35:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	8.09	43067511	289.350 ng
Spiked Amount	100.000		Recovery =	289.35%
23)	S o-Terphenyl	6.40	77912208	279.112 ng
Spiked Amount	100.000		Recovery =	279.11%
	Target Compounds			
2)	T n-Nonane (C9)	0.85	65996489	278.936 ng
3)	T n-Decane (C10)	1.47	69555315	286.741 ng
4)	T n-Dodecane (C12)	2.84	71375659	287.421 ng
5)	T n-Tetradecane (C14)	3.97	74002698	286.945 ng
6)	T n-Hexadecane (C16)	4.94	76074905	285.417 ng
7)	T n-Octadecane (C18)	5.84	77199743	282.239 ng
8)	T n-Eicosane (C20)	7.36	76610434	275.158 ng
9)	T n-Heneicosane (C21)	8.20	68935120	264.095 ng
10)	T n-Docosane (C22)	8.71	76718363	267.671 ng
11)	T n-Tetracosane (C24)	9.43	74804468	262.417 ng
12)	T n-Hexacosane (C26)	9.98	71786860	254.820 ng
13)	T n-Octacosane (C28)	10.45	70529490	249.959 ng
14)	T n-Triacontane (C30)	10.87	70846849	248.310 ng
15)	T n-Dotriacontane (C32)	11.26	69757696	248.610 ng
16)	T n-Tetratriacontane (C34)	11.62	67720106	250.846 ng
17)	T n-Hexatriacontane (C36)	11.96	67237018	252.992 ng
18)	T n-Octatriacontane (C38)	12.28	65120755	256.348 ng
19)	T n-Tetracontane (C40)	12.62	63172172	260.751 ng
20)	H C9-C28	5.03	898540517	3053.407 ng
21)	H C28-C40	11.88	416345038	1451.990 ng
22)	H C9-C40	6.84	1328193139	4368.176 ng

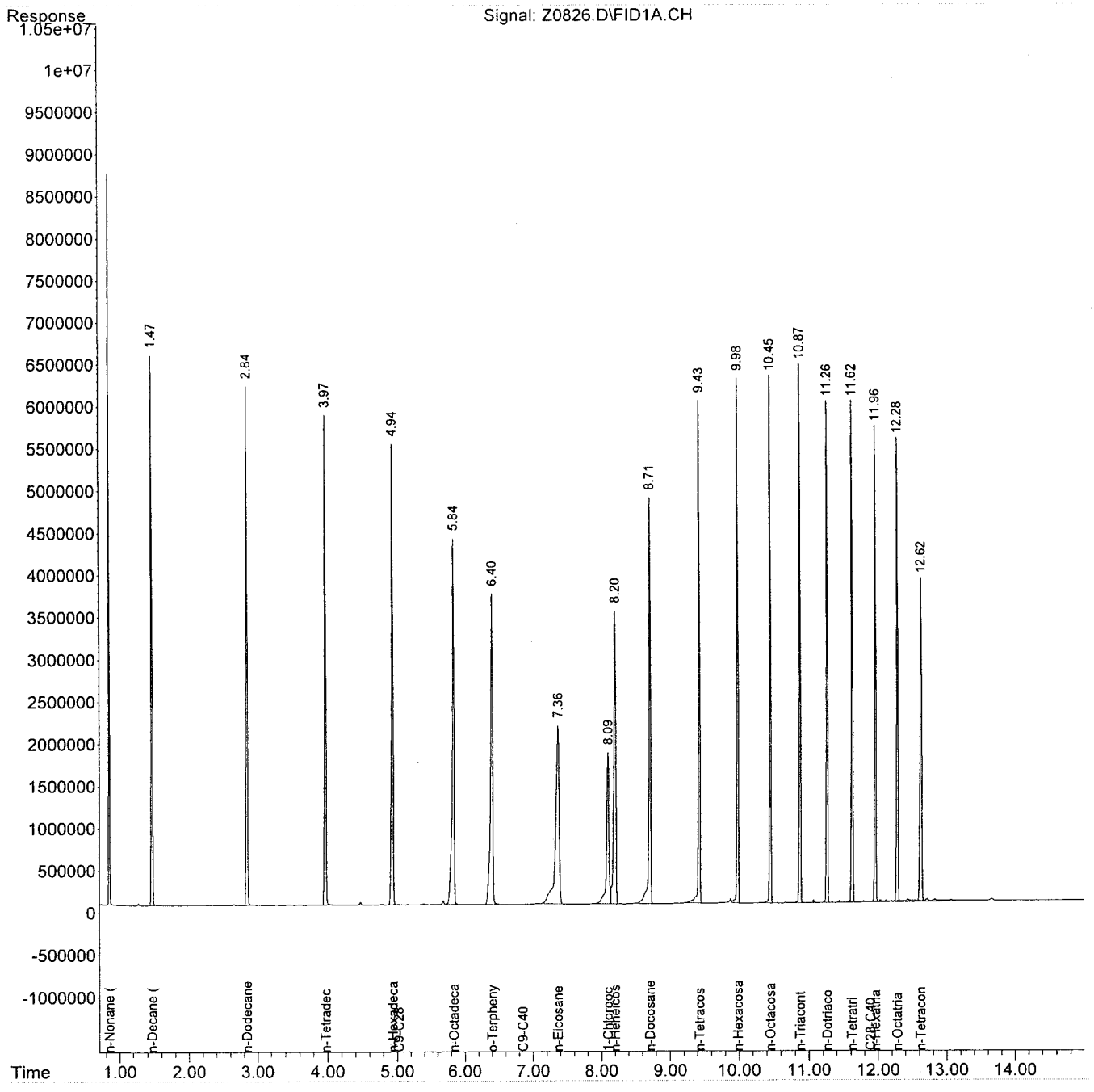
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0826.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:08
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:35:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09195 20301

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0830.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:44
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 12:02:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	40809174	274.177 ng
Spiked Amount	100.000		Recovery =	274.18%
23) S	o-Terphenyl	6.40	73753071	264.212 ng
Spiked Amount	100.000		Recovery =	264.21%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61923491	261.722 ng
3) T	n-Decane (C10)	1.47	65518781	270.101 ng
4) T	n-Dodecane (C12)	2.84	67190374	270.567 ng
5) T	n-Tetradecane (C14)	3.97	69701996	270.269 ng
6) T	n-Hexadecane (C16)	4.94	71860086	269.603 ng
7) T	n-Octadecane (C18)	5.84	73154701	267.450 ng
8) T	n-Eicosane (C20)	7.36	72871997	261.731 ng
9) T	n-Heneicosane (C21)	8.20	65489857	250.896 ng
10) T	n-Docosane (C22)	8.71	72993234	254.674 ng
11) T	n-Tetracosane (C24)	9.43	71059291	249.278 ng
12) T	n-Hexacosane (C26)	9.98	67988040	241.336 ng
13) T	n-Octacosane (C28)	10.45	66670173	236.282 ng
14) T	n-Triacontane (C30)	10.87	66791885	234.098 ng
15) T	n-Dotriacontane (C32)	11.26	65565898	233.671 ng
16) T	n-Tetratriacontane (C34)	11.62	63365495	234.716 ng
17) T	n-Hexatriacontane (C36)	11.96	63034047	237.177 ng
18) T	n-Octatriacontane (C38)	12.28	60983384	240.061 ng
19) T	n-Tetracontane (C40)	12.62	59227866	244.470 ng
20) H	C9-C28	5.03	851136727	2892.320 ng
21) H	C28-C40	11.88	390820568	1362.974 ng
22) H	C9-C40	6.84	1254922506	4127.203 ng

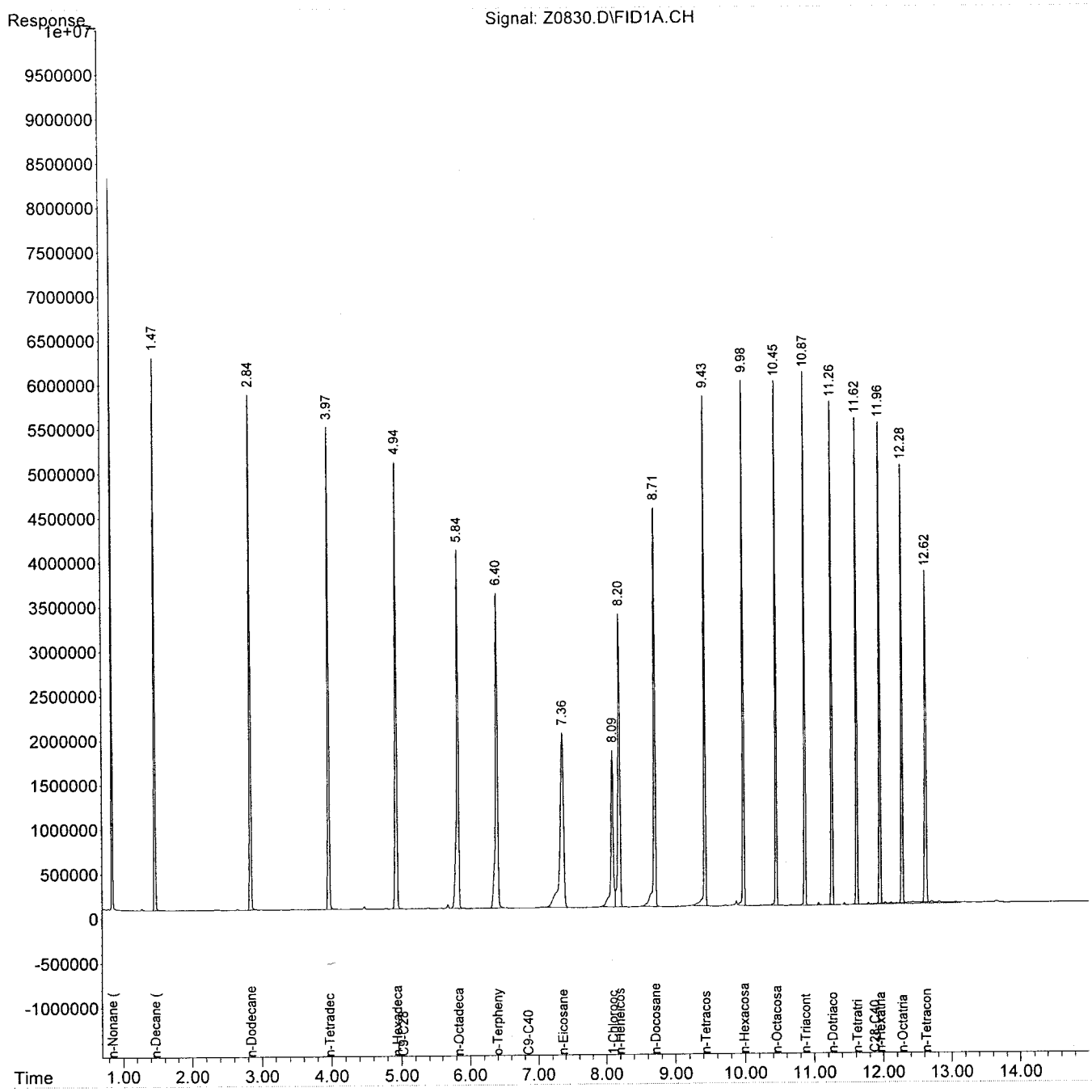
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0830.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:44
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 12:02:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0808.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:43
Operator : WP
Sample : NJ-EPH-C,LCSS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	13433471	90.253	ng	
Spiked Amount	100.000		Recovery =	90.25%		
23) S	o-Terphenyl	6.39	25819488	92.495	ng	
Spiked Amount	100.000		Recovery =	92.50%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	8452565	35.725	ng	
3) T	n-Decane (C10)	1.46	13383815	55.175	ng	
4) T	n-Dodecane (C12)	2.84	17823807	71.774	ng	
5) T	n-Tetradecane (C14)	3.97	20532517	79.615	ng	
6) T	n-Hexadecane (C16)	4.94	23365566	87.663	ng	
7) T	n-Octadecane (C18)	5.83	32125335	117.449	ng	
8) T	n-Eicosane (C20)	7.35	25719459	92.375	ng	
9) T	n-Heneicosane (C21)	8.19	29343713	112.418	ng	
10) T	n-Docosane (C22)	8.70	27976488	97.610	ng	
11) T	n-Tetracosane (C24)	9.43	26190566	91.877	ng	
12) T	n-Hexacosane (C26)	9.97	26415280	93.766	ng	
13) T	n-Octacosane (C28)	10.44	26979304	95.616	ng	m
14) T	n-Triacontane (C30)	10.87	26163625	91.701	ng	
15) T	n-Dotriacontane (C32)	11.25	24452231	87.146	ng	
16) T	n-Tetratriacontane (C34)	11.61	23159626	85.787	ng	
17) T	n-Hexatriacontane (C36)	11.95	18730258	70.476	ng	
18) T	n-Octatriacontane (C38)	12.27	15607542	61.439	ng	
19) T	n-Tetracontane (C40)	12.62	13989521	57.744	ng	
20) H	C9-C28	5.03	741277119	2518.997	ng	
21) H	C28-C40	11.88	225107995	785.057	ng	
22) H	C9-C40	6.84	973593480	3201.965	ng	

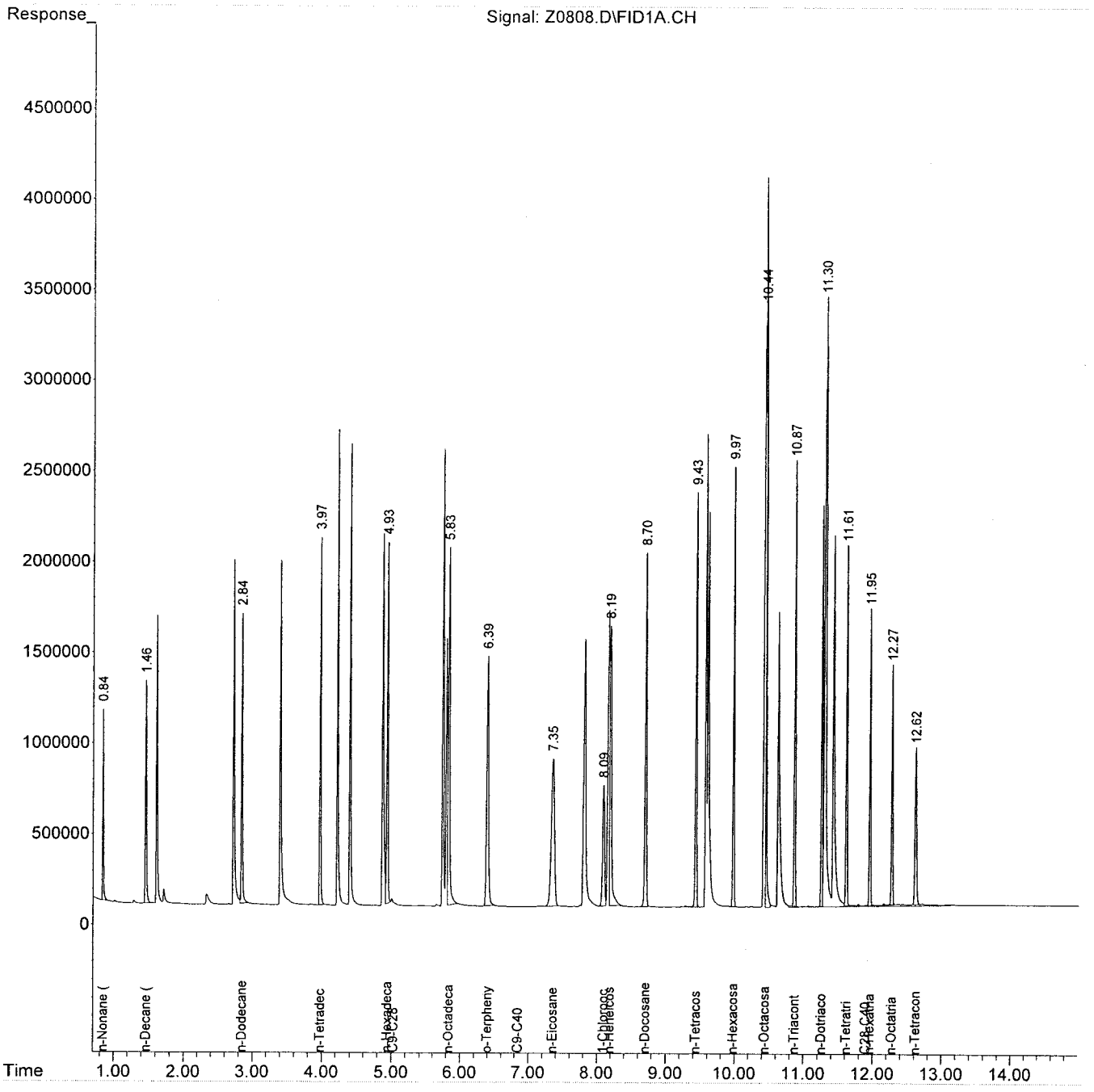
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0808.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:43
Operator : WP
Sample : NJ-EPH-C,LCSS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09135 0306

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0809.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:05
Operator : WP
Sample : NJ-EPH-C,LCSDS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	13184532	88.581	ng	
Spiked Amount	100.000		Recovery =	88.58%		
23) S	o-Terphenyl	6.39	25402548	91.002	ng	
Spiked Amount	100.000		Recovery =	91.00%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	8360697	35.337	ng	
3) T	n-Decane (C10)	1.46	13270421	54.707	ng	
4) T	n-Dodecane (C12)	2.84	17718666	71.351	ng	
5) T	n-Tetradecane (C14)	3.97	20235938	78.465	ng	
6) T	n-Hexadecane (C16)	4.94	23084850	86.609	ng	
7) T	n-Octadecane (C18)	5.83	31888409	116.583	ng	
8) T	n-Eicosane (C20)	7.35	25370928	91.124	ng	
9) T	n-Heneicosane (C21)	8.19	29964512	114.796	ng	
10) T	n-Docosane (C22)	8.70	27648943	96.467	ng	
11) T	n-Tetracosane (C24)	9.43	25693935	90.135	ng	
12) T	n-Hexacosane (C26)	9.98	26187105	92.956	ng	
13) T	n-Octacosane (C28)	10.44	24924871	88.335	ng	m
14) T	n-Triacontane (C30)	10.87	25894656	90.758	ng	
15) T	n-Dotriacontane (C32)	11.25	24102356	85.899	ng	
16) T	n-Tetratriacontane (C34)	11.61	22681800	84.017	ng	
17) T	n-Hexatriacontane (C36)	11.95	18123474	68.193	ng	
18) T	n-Octatriacontane (C38)	12.27	15031977	59.173	ng	
19) T	n-Tetracontane (C40)	12.62	13547493	55.919	ng	
20) H	C9-C28	5.03	729587394	2479.273	ng	
21) H	C28-C40	11.88	221092863	771.054	ng	
22) H	C9-C40	6.84	959779746	3156.534	ng	

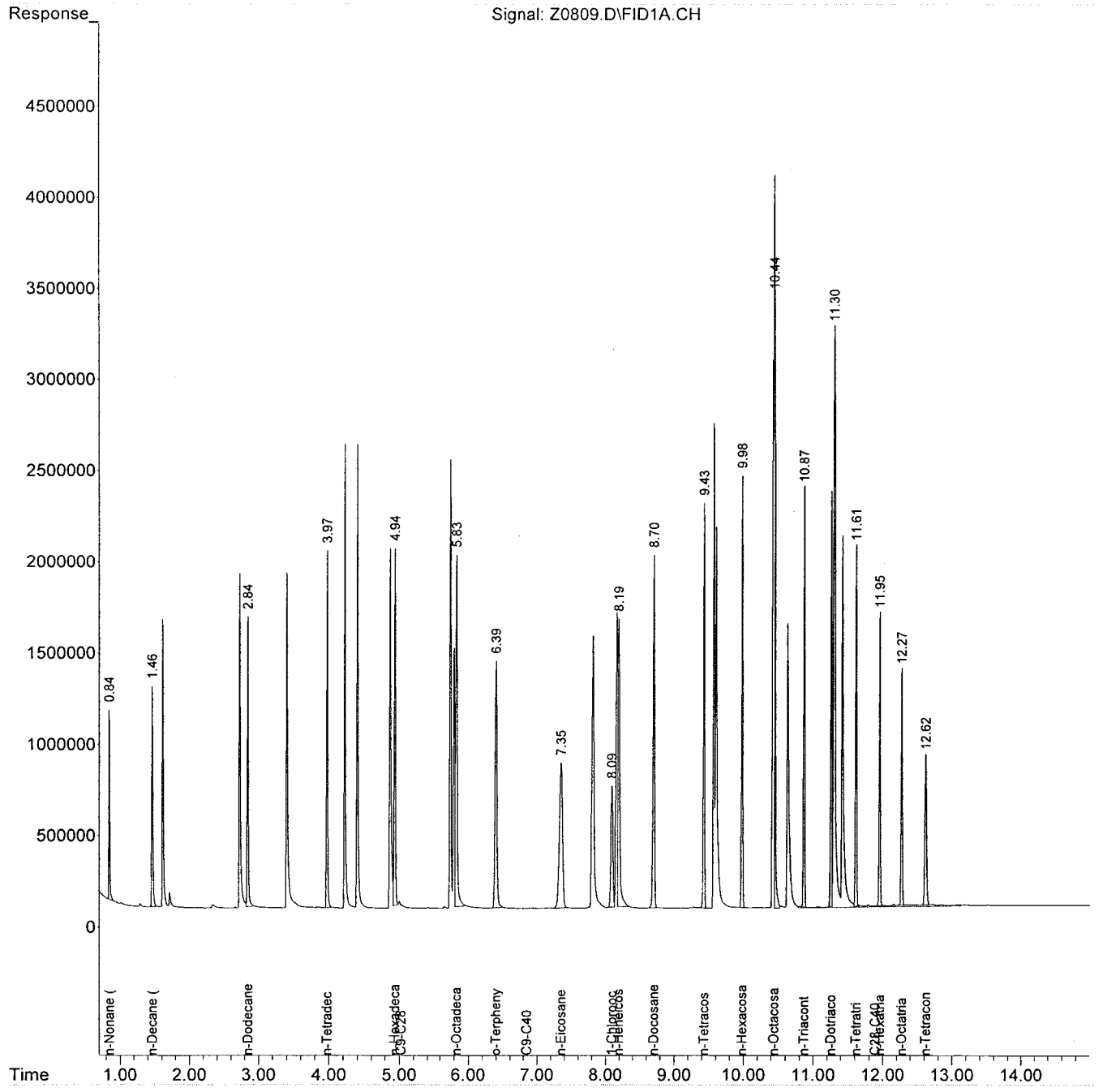
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0809.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:05
Operator : WP
Sample : NJ-EPH-C,LCSDS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0823.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:16
Operator : WP
Sample : NJ-EPH-C,09198-004MS,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:09:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	11235381	75.485	ng	
Spiked Amount	100.000		Recovery =	75.48%		
23) S	o-Terphenyl	6.39	21701384	77.743	ng	
Spiked Amount	100.000		Recovery =	77.74%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	7600081	32.122	ng	
3) T	n-Decane (C10)	1.46	11548542	47.609	ng	
4) T	n-Dodecane (C12)	2.84	14804169	59.615	ng	
5) T	n-Tetradecane (C14)	3.97	17086951	66.254	ng	
6) T	n-Hexadecane (C16)	4.93	19300175	72.410	ng	
7) T	n-Octadecane (C18)	5.83	25200688	92.133	ng	m
8) T	n-Eicosane (C20)	7.35	21249681	76.321	ng	
9) T	n-Heneicosane (C21)	8.18	24582609	94.178	ng	m
10) T	n-Docosane (C22)	8.70	22929923	80.003	ng	
11) T	n-Tetracosane (C24)	9.43	21155072	74.213	ng	
12) T	n-Hexacosane (C26)	9.97	21368098	75.850	ng	
13) T	n-Octacosane (C28)	10.44	21557233	76.400	ng	m
14) T	n-Triacontane (C30)	10.87	21110395	73.990	ng	
15) T	n-Dotriacontane (C32)	11.25	19898544	70.917	ng	
16) T	n-Tetratriacontane (C34)	11.61	19354511	71.692	ng	
17) T	n-Hexatriacontane (C36)	11.95	16029315	60.313	ng	
18) T	n-Octatriacontane (C38)	12.27	12488797	49.162	ng	
19) T	n-Tetracontane (C40)	12.62	11095834	45.799	ng	
20) H	C9-C28	5.03	605476510	2057.521	ng	
21) H	C28-C40	11.88	194717509	679.071	ng	
22) H	C9-C40	6.84	820855476	2699.638	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

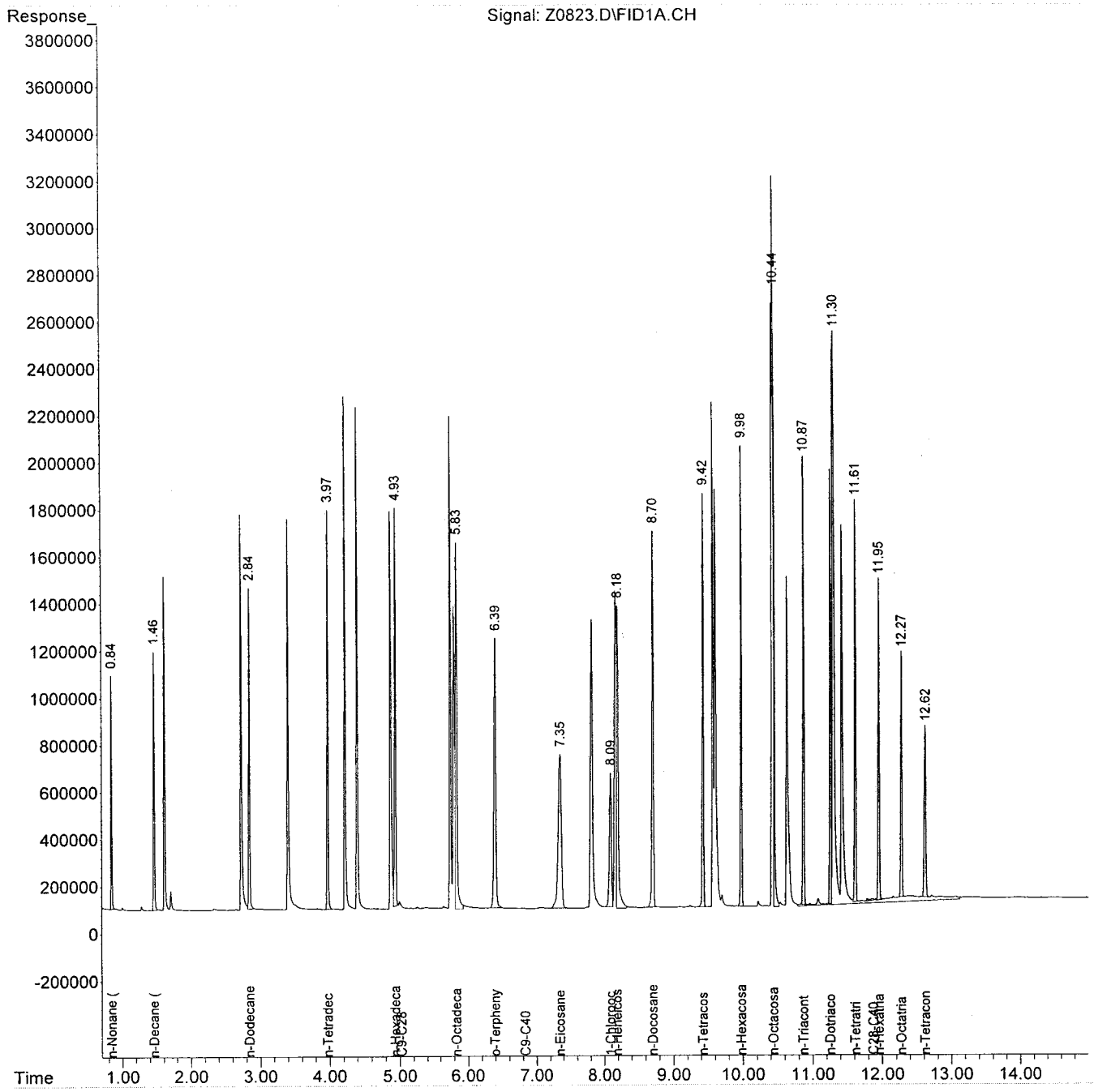
E13-09135 0309

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0823.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:16
Operator : WP
Sample : NJ-EPH-C,09198-004MS,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:09:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	11875881	79.788 ng
Spiked Amount 100.000		Recovery =	79.79%
23) S o-Terphenyl	6.39	23982725	85.915 ng
Spiked Amount 100.000		Recovery =	85.92%
Target Compounds			
22) H C9-C40	6.84	80350863	264.259 ng

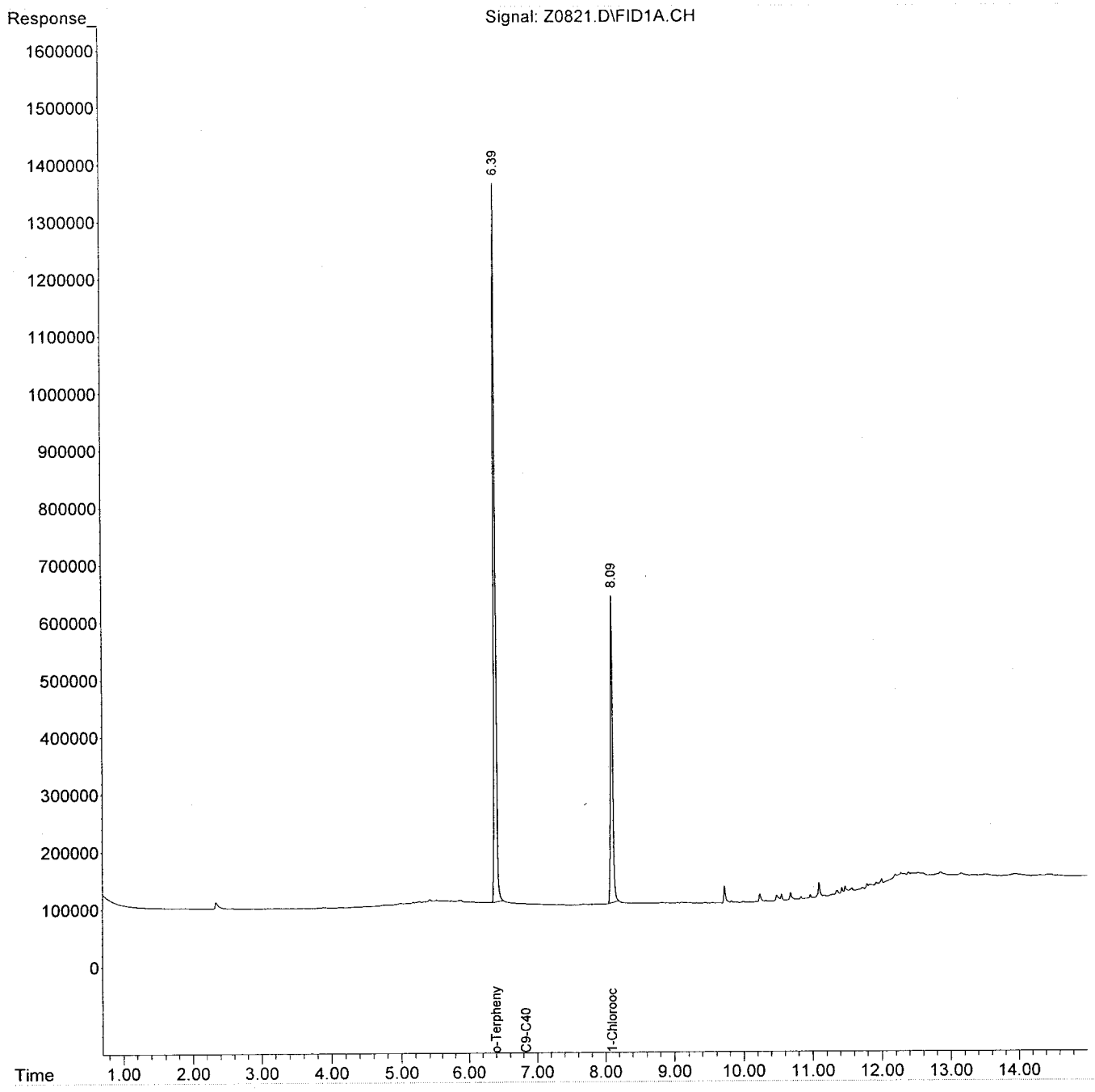
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0822.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:54
Operator : WP
Sample : AOC-12-4,09198-4D,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	12030287	80.826 ng
Spiked Amount 100.000		Recovery =	80.83%
23) S o-Terphenyl	6.39	24456093	87.611 ng
Spiked Amount 100.000		Recovery =	87.61%
Target Compounds			
22) H C9-C40	6.84	82029218	269.779 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

WP

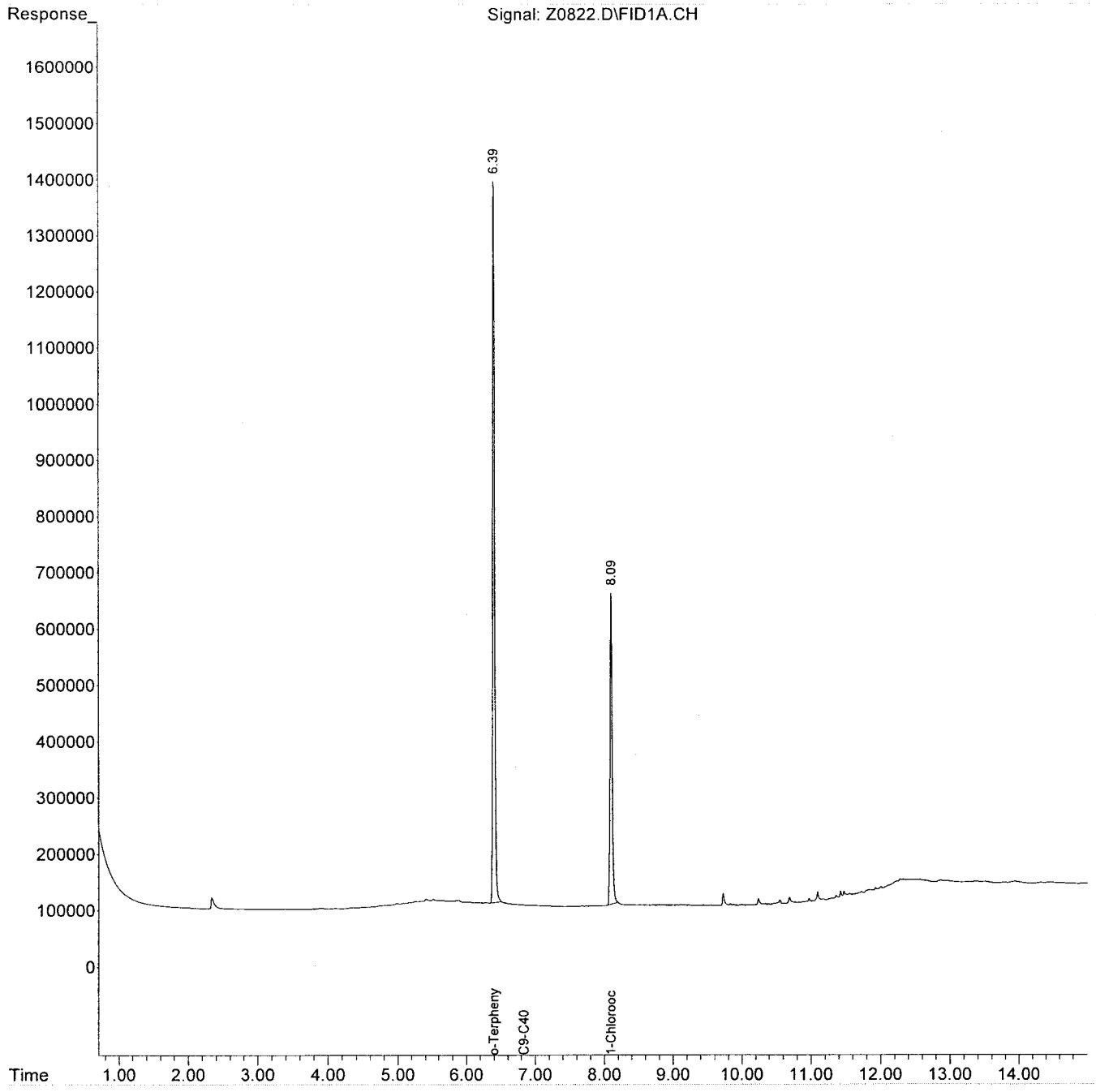
E13-09135 0313

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0822.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:54
Operator : WP
Sample : AOC-12-4,09198-4D,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: BLKS130919-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: Z0807.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
C9-C40	ND		36.0	9.00

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0807.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:21
Operator : WP
Sample : NJ-EPH-C,BLKS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.10	10983605	73.794	ng	m
Spiked Amount 100.000		Recovery = 73.79%			
23) S o-Terphenyl	6.40	20973388	75.135	ng	
Spiked Amount 100.000		Recovery = 75.14%			
Target Compounds					

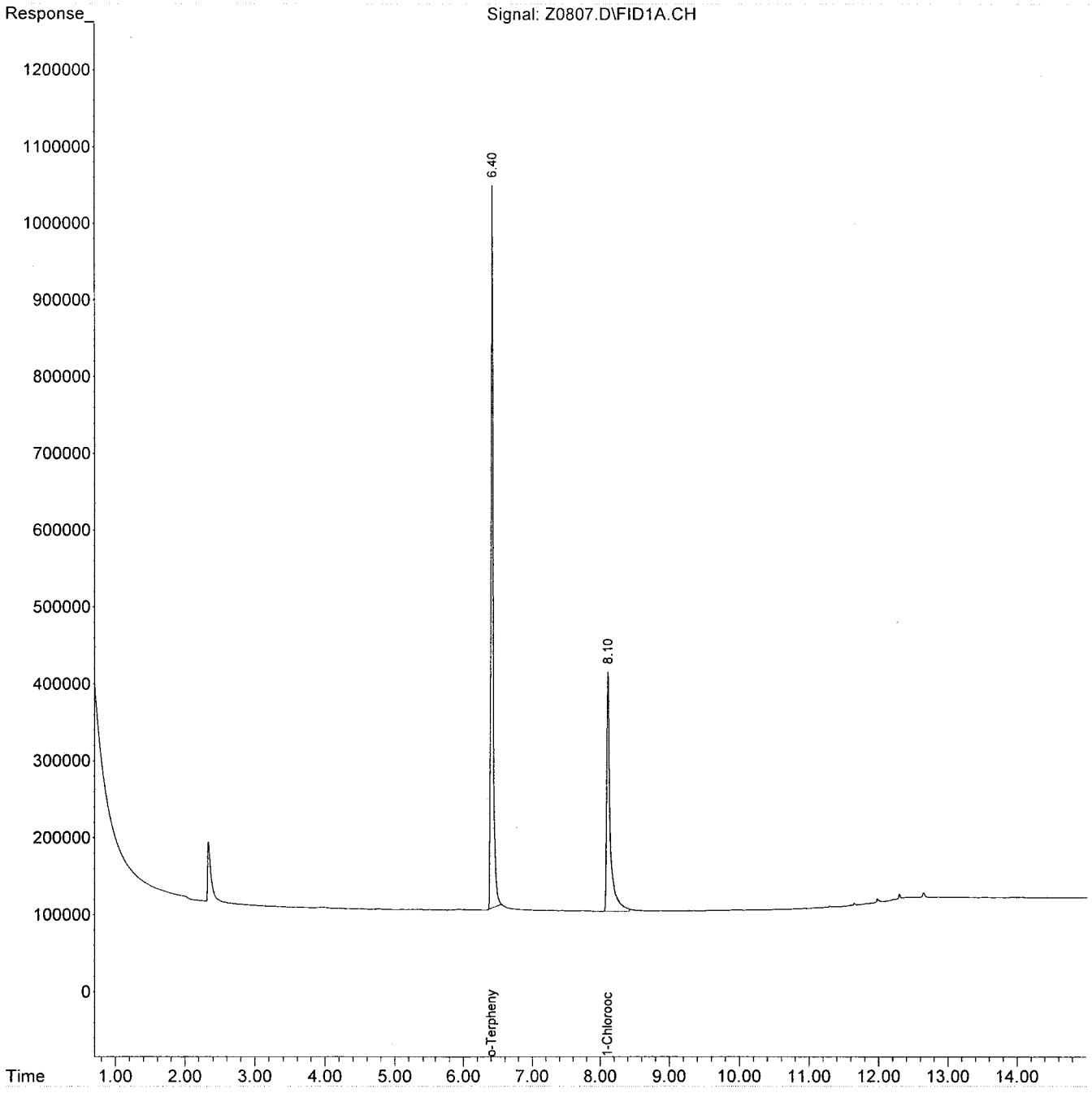
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0807.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:21
Operator : WP
Sample : NJ-EPH-C,BLKS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON

FRACTIOANTED
EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS130923-15	SOIL	68	
ALI	LCSS130923-15	SOIL	74	
ALI	LCSDS130923-15	SOIL	78	
SW-207	09273-008	SOIL	116	
G-41/1.5	09263-002	SOIL	44	
AOC-2-4/	09135-004	SOIL	53	
C-2_LOAD	09196-002	SOLID	57	
C-3_BLD_	09196-003	SOLID	52	
C-4_IMP.	09196-004	SOLID	48	
C-5_SPHI	09196-005	SOLID	56	
AOC-7-2/	09197-004	SOIL	46	
AOC-7-3/	09197-005	SOIL	46	
AOC-7-4/	09197-006	SOIL	57	
SW-207	09273-8D	SOIL	113	
ALI	09273-008MS	SOIL	65	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS130923-15	SOIL	80		81		73	
ARO	LCSS130923-15	SOIL	73		52		67	
ARO	LCSDS130923-15	SOIL	70		49		64	
SW-207	09273-008	SOIL	70		88		94	
G-41/1.5	09263-002	SOIL	76		84		55	
AOC-2-4/	09135-004	SOIL	83		78		73	
C-2_LOAD	09196-002	SOLID	79		86		60	
C-3_BLD_	09196-003	SOLID	81		78		61	
C-4_IMP.	09196-004	SOLID	83		83		59	
C-5_SPHI	09196-005	SOLID	80		79		54	
AOC-7-2/	09197-004	SOIL	97		96		69	
AOC-7-3/	09197-005	SOIL	106		91		89	
AOC-7-4/	09197-006	SOIL	91		80		89	
SW-207	09273-8D	SOIL	81		89		76	
ARO	09273-008MS	SOIL	76		83		73	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130923-15
Client ID: ALI
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: U6385.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	50	0.00	26	52	27	54	4
n-Decane (C10)	50	0.00	36	72	38	76	5
n-Dodecane (C12)	50	0.00	41	82	43	86	5
n-Tetradecane (C14)	50	0.00	45	90	47	94	4
n-Hexadecane (C16)	50	0.00	47	94	50	100	6
n-Octadecane (C18)	50	0.00	47	94	51	102	8
n-Eicosane (C20)	50	0.00	46	92	49	98	6
n-Heneicosane (C21)	50	0.00	43	86	46	92	7
n-Docosane (C22)	50	0.00	48	96	51	102	6
n-Tetracosane (C24)	50	0.00	43	86	45	90	5
n-Hexacosane (C26)	50	0.00	45	90	46	92	2
n-Octacosane (C28)	50	0.00	46	92	47	94	2
n-Triacontane (C30)	50	0.00	47	94	48	96	2
n-Dotriacontane (C32)	50	0.00	46	92	46	92	0
n-Tetratriacontane (C34)	50	0.00	47	94	48	96	2
n-Hexatriacontane (C36)	50	0.00	44	88	45	90	2
n-Octatriacontane (C38)	50	0.00	43	86	44	88	2
n-Tetracontane (C40)	50	0.00	44	88	45	90	2
C9-C12	150	0.00	63	42	65	43	3
C12-C16	100	0.00	92	92	98	98	6
C16-C21	150	0.00	139	93	148	99	6
C21-C40	500	0.00	484	97	494	99	2

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130923-15
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: UB4460.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	29	58	27	54	7
Napthalene	50	0.00	37	74	35	70	6
2-Methylnaphthalene	50	0.00	39	78	37	74	5
Acenaphthylene	50	0.00	39	78	37	74	5
Acenaphthene	50	0.00	49	98	48	96	2
Fluorene	50	0.00	39	78	37	74	5
Phenanthrene	50	0.00	42	84	40	80	5
Anthracene	50	0.00	44	88	41	82	7
Fluoroanthene	50	0.00	43	86	41	82	5
Pyrene	50	0.00	44	88	42	84	5
Benzo[a]anthracene	50	0.00	41	82	39	78	5
Chrysene	50	0.00	49	98	47	94	4
Benzo[b]fluoranthene	50	0.00	45	90	42	84	7
Benzo[k]fluoranthene	50	0.00	45	90	42	84	7
Benzo[a]pyrene	50	0.00	40	80	37	74	8
Indeno[1,2,3-cd]pyrene	50	0.00	44	88	42	84	5
Dibenz[a,h]anthracene	50	0.00	44	88	42	84	5
Benzo[g,h,i]perylene	50	0.00	43	86	42	84	2
C10-C12	100	0.00	68	68	64	64	6
C12-C16	150	0.00	125	83	120	80	4
C16-C21	250	0.00	222	89	213	85	4
C21-C36	400	0.00	365	91	346	87	5

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09273-008MS
Client ID: ALI
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: U6397.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 11.9

Compound	Conc. Add	Sample	MS Conc.	%Rec.	
C9-C12	150	0	150	100	
C12-C16	100	8908	8933	25	*
C16-C21	150	27758	30613	1903	*
C21-C40	500	9609	11848	448	*

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 09273-008MS
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: UB4472.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 11.9

Compound	Conc. Add	Sample	MS Conc.	%Rec.	
C10-C12	100	0	69	69	
C12-C16	150	369	431	41	
C16-C21	250	5257	5333	30	*
C21-C36	400	1355	1370	4	*

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: SW-207
Date Received: 09/19/2013
Date Extracted: 09/23/2013
Lab ID: 09273-008
Sample wt/vol: 5.00g
Date Analyzed: 09/24/2013
Aliphatics Sample Data file: U6386.D
Dilution Factor: 5
Date Analyzed: 09/24/2013
Aromatics Sample Data file: UB4461.D
Dilution Factor: 1

GC Column: HP-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.9
Lab ID: 09273-8D
Sample wt/vol: 5.00g
Date Analyzed: 09/25/2013
Aliphatics Sample Dup Data file: U6396.D
Dilution Factor: 5
Date Analyzed: 09/25/2013
Aromatics Sample Dup Data file: UB4471.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NC
C12-C16 Aliphatics	2020	1900	6
C16-C21 Aliphatics	6300	5750	9
C21-C40 Aliphatics	2180	2100	4
Total Aliphatics	10500	9750	7
C10-C12 Aromatics	ND	ND	NC
C12-C16 Aromatics	83.8	71.9	15
C16-C21 Aromatics	1190	1100	8
C21-C36 Aromatics	308	265	15
Total Aromatics	1580	1440	9
Total NJ-EPH	12100	11200	8

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NC Not calculable

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID: U6383.D

Instrument ID: GC-U

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 16:31

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS130923-15	09/24/2013	17:05
ALI	LCSDS130923-15	09/24/2013	17:38
SW-207	09273-008	09/24/2013	18:11
G-41/1.5	09263-002	09/24/2013	18:45
AOC-2-4/	09135-004	09/24/2013	19:51
C-2_LOAD	09196-002	09/24/2013	20:25
C-3_BLD_	09196-003	09/24/2013	21:31
C-4_IMP.	09196-004	09/24/2013	22:05
C-5_SPHI	09196-005	09/24/2013	23:11
AOC-7-2/	09197-004	09/24/2013	23:45
AOC-7-3/	09197-005	09/25/2013	00:51
AOC-7-4/	09197-006	09/25/2013	01:58
SW-207	09273-8D	09/25/2013	03:04
ALI	09273-008MS	09/25/2013	03:37

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: UB4458.D

Instrument ID: GC-U

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 16:31

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS130923-15	09/24/2013	17:05
ARO	LCSDS130923-15	09/24/2013	17:38
SW-207	09273-008	09/24/2013	18:11
G-41/1.5	09263-002	09/24/2013	18:45
AOC-2-4/	09135-004	09/24/2013	19:18
C-2_LOAD	09196-002	09/24/2013	20:25
C-3_BLD_	09196-003	09/24/2013	20:58
C-4_IMP.	09196-004	09/24/2013	22:05
C-5_SPHI	09196-005	09/24/2013	22:38
AOC-7-2/	09197-004	09/24/2013	23:45
AOC-7-3/	09197-005	09/25/2013	00:51
AOC-7-4/	09197-006	09/25/2013	01:58
SW-207	09273-8D	09/25/2013	03:04
ARO	09273-008MS	09/25/2013	03:37

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** HP-5

Surrogate RT from initial calibration :

COD **11.67**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS130923-15	09/24/2013	16:31	11.67	
ALI	LCSS130923-15	09/24/2013	17:05	11.67	
ALI	LCSDS130923-15	09/24/2013	17:38	11.67	
SW-207	09273-008	09/24/2013	18:11	11.69	
G-41/1.5	09263-002	09/24/2013	18:45	11.67	
AOC-2-4/	09135-004	09/24/2013	19:51	11.68	
C-2_LOAD	09196-002	09/24/2013	20:25	11.68	
C-3_BLD_	09196-003	09/24/2013	21:31	11.68	
C-4_IMP.	09196-004	09/24/2013	22:05	11.67	
C-5_SPHI	09196-005	09/24/2013	23:11	11.68	
AOC-7-2/	09197-004	09/24/2013	23:45	11.67	
AOC-7-3/	09197-005	09/25/2013	00:51	11.67	
AOC-7-4/	09197-006	09/25/2013	01:58	11.67	
SW-207	09273-8D	09/25/2013	03:04	11.69	
ALI	09273-008MS	09/25/2013	03:37	11.69	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** HP-5

Surrogate RT from initial calibration :

FBP 4.30 **BNP** 5.32 **OTP** 9.54

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS130923-15	09/24/2013	16:31	4.30		5.32		9.54	
ARO	LCSS130923-15	09/24/2013	17:05	4.30		5.30		9.54	
ARO	LCSDS130923-15	09/24/2013	17:38	4.30		5.30		9.54	
SW-207	09273-008	09/24/2013	18:11	4.30		5.31		9.56	
G-41/1.5	09263-002	09/24/2013	18:45	4.30		5.31		9.54	
AOC-2-4/	09135-004	09/24/2013	19:18	4.29		5.30		9.55	
C-2_LOAD	09196-002	09/24/2013	20:25	4.30		5.30		9.54	
C-3_BLD_	09196-003	09/24/2013	20:58	4.30		5.31		9.54	
C-4_IMP.	09196-004	09/24/2013	22:05	4.30		5.30		9.54	
C-5_SPHI	09196-005	09/24/2013	22:38	4.30		5.31		9.54	
AOC-7-2/	09197-004	09/24/2013	23:45	4.30		5.30		9.54	
AOC-7-3/	09197-005	09/25/2013	00:51	4.29		5.30		9.55	
AOC-7-4/	09197-006	09/25/2013	01:58	4.29		5.29		9.55	
SW-207	09273-8D	09/25/2013	03:04	4.29		5.30		9.55	
ARO	09273-008MS	09/25/2013	03:37	4.29		5.29		9.56	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

	Fraction Data file:	Fraction Data file:
Lab ID: LCSS130923-15	Aliphatic U6384.D	Aromatic UB4459.D
Lab ID: LCSDS130923-15	Aliphatic U6385.D	Aromatic UB4460.D

Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	36.8	0.0	0.0	34.8	0.0	0.0	Pass
2-Methylnaphthalene	38.5	0.0	0.0	36.7	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6388.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 19:51
Operator : PSL
Sample : AOC-2-4/,09135-004,S,5.18g,20.4,09/23/13,1
Misc : 130923-15,09/16/13,09/17/13,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:02:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.68	11004292	26.294 ng
Spiked Amount 50.000		Recovery =	52.59%
Target Compounds			
20) H C9-C12	2.25	110286415	190.377 ng
21) H C12-C16	5.20	407413776	670.879 ng
22) H C16-C21	9.65	831910415	1490.657 ng
23) H C21-C40	18.70	1812987341	3083.130 ng

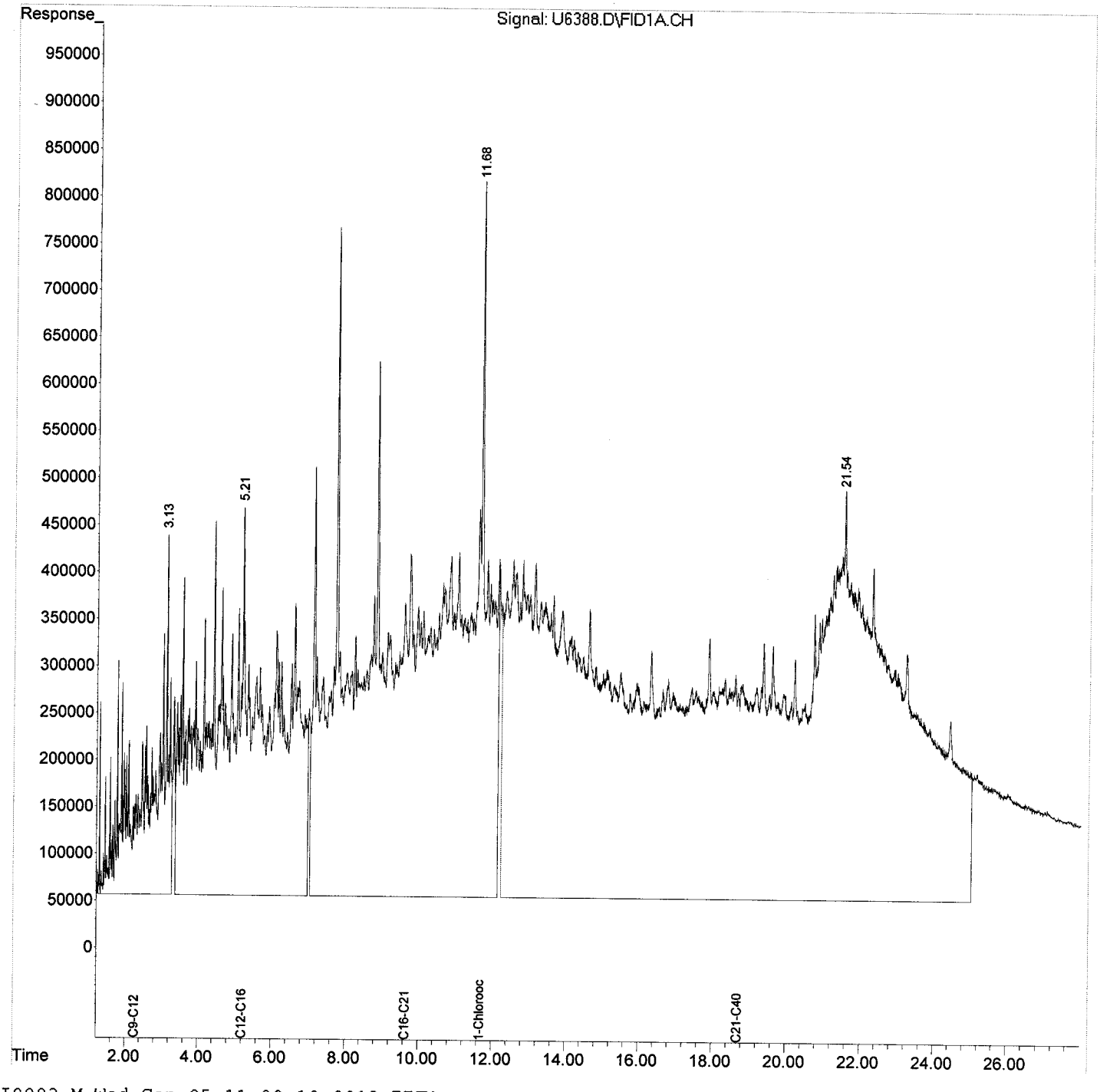
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6388.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 19:51
Operator : PSL
Sample : AOC-2-4/,09135-004,S,5.18g,20.4,09/23/13,1
Misc : 130923-15,09/16/13,09/17/13,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:02:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4463.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 19:18
Operator : PSL
Sample : AOC-2-4/,09135-004,S,5.18g,20.4,09/23/13,1
Misc : 130923-15,09/16/13,09/17/13,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:26:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.29	36326856	41.603	ng	m
Spiked Amount 50.000		Recovery = 83.21%			
2) S 2-Bromonaphthalene	5.30	21027565	38.882	ng	m
Spiked Amount 50.000		Recovery = 77.76%			
3) S o-Terphenyl	9.55	26601324	36.702	ng	m
Spiked Amount 50.000		Recovery = 73.40%			
Target Compounds					
23) H C12-C16	4.95	201738925	246.560	ng	
24) H C16-C21	9.60	1633355056	1907.414	ng	
25) H C21-C36	17.20	2590394916	2920.033	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

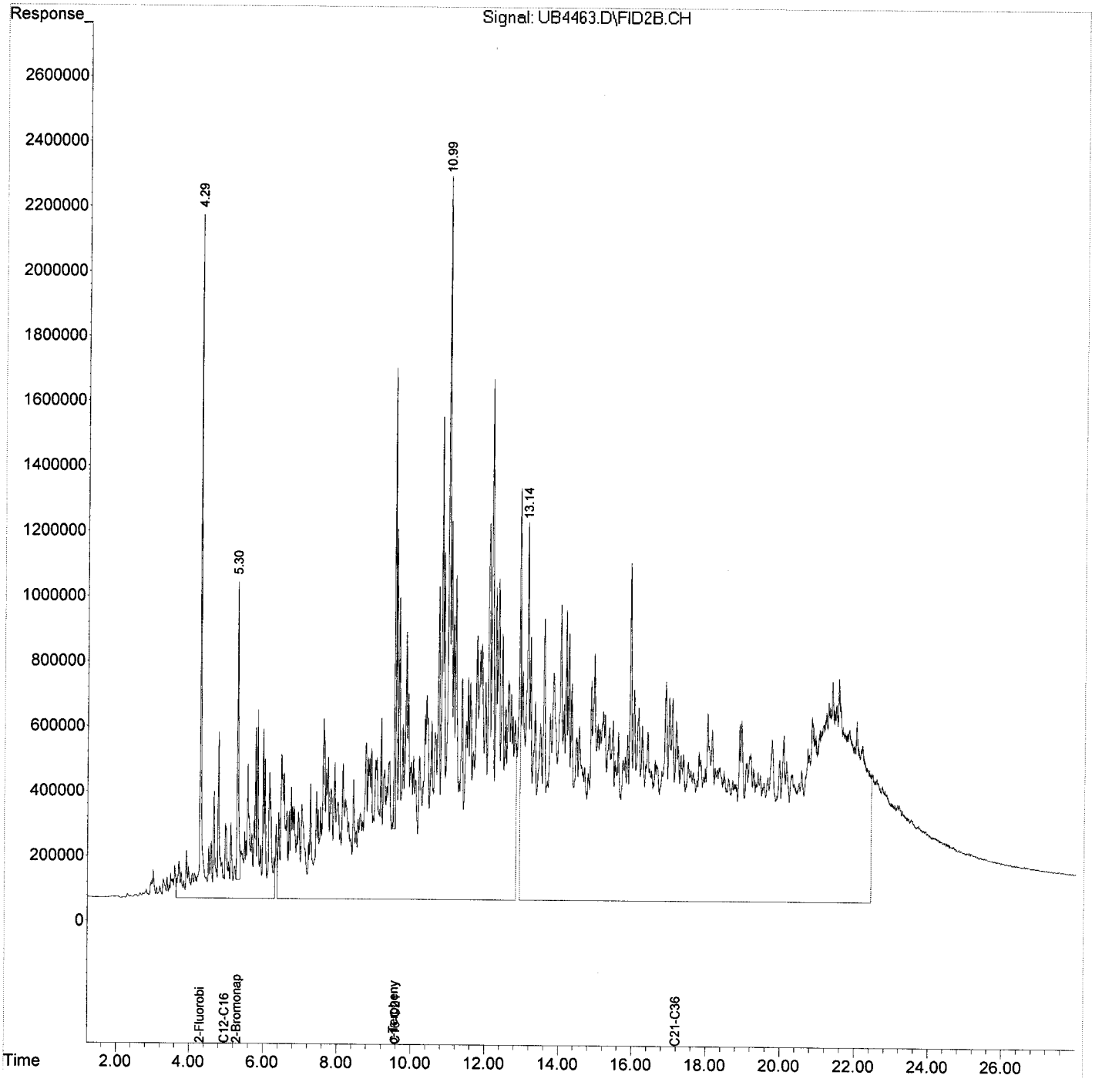
E13-09135

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4463.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 19:18
Operator : PSL
Sample : AOC-2-4/,09135-004,S,5.18g,20.4,09/23/13,1
Misc : 130923-15,09/16/13,09/17/13,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:26:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013

Instrument ID: GC-U

GC Column : HP-5

Data File: U6157.D U6156.D U6155.D U6154.D U6153.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.29	1.29	1.29	1.29	1.30	1.29	1.22	1.36
n-Decane (C10)	1.78	1.78	1.79	1.79	1.80	1.79	1.72	1.86
n-Dodecane (C12)	3.05	3.04	3.05	3.06	3.07	3.06	2.98	3.14
n-Tetradecane (C14)	4.64	4.64	4.65	4.67	4.68	4.66	4.57	4.75
n-Hexadecane (C16)	6.62	6.63	6.64	6.66	6.68	6.65	6.54	6.76
n-Octadecane (C18)	8.76	8.77	8.78	8.80	8.83	8.79	8.67	8.91
n-Eicosane (C20)	10.85	10.85	10.87	10.89	10.92	10.88	10.76	11.00
n-Heneicosane (C21)	11.84	11.85	11.87	11.89	11.93	11.88	11.74	12.02
n-Docosane (C22)	12.80	12.81	12.83	12.85	12.89	12.84	12.70	12.98
n-Tetracosane (C24)	14.63	14.63	14.65	14.68	14.72	14.66	14.51	14.81
n-Hexacosane (C26)	16.32	16.33	16.35	16.37	16.41	16.35	16.20	16.50
n_Octacosane (C28)	17.90	17.91	17.93	17.95	17.99	17.94	17.79	18.09
n-Triacontane (C30)	19.37	19.38	19.41	19.43	19.48	19.41	19.26	19.56
n-Dotriacontane (C32)	20.74	20.75	20.77	20.79	20.83	20.78	20.66	20.90
n-Tetratriacontane (C34)	21.57	21.58	21.59	21.60	21.63	21.59	21.47	21.71
n-Hexatriacontane (C36)	22.33	22.34	22.36	22.38	22.41	22.36	22.21	22.51
n-Octatriacontane (C38)	23.26	23.28	23.30	23.33	23.36	23.31	23.16	23.46
n-Tetracontane (40)	24.47	24.49	24.52	24.56	24.61	24.53	24.38	24.68
C9-C12	2.25	2.25	2.25	2.25	2.25	2.25	2.15	2.35
C12-C16	5.20	5.20	5.20	5.20	5.20	5.20	5.10	5.30
C16-C21	9.65	9.65	9.65	9.65	9.65	9.65	9.54	9.76
C21-C40	18.70	18.70	18.70	18.70	18.70	18.70	18.59	18.81

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U
GC Column : HP-5

Data File: U6157.D U6156.D U6155.D U6154.D U6153.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	499988	575699	566240	552043	541608	547115	5.37
n-Decane (C10)	519216	588869	582177	567892	561432	563917	4.84
n-Dodecane (C12)	526461	606946	607601	586815	579223	581409	5.70
n-Tetradecane (C14)	527770	620823	622924	588463	579259	587848	6.59
n-Hexadecane (C16)	537015	610572	609980	567550	559629	576949	5.62
n-Octadecane (C18)	528277	582546	580707	538505	540212	554049	4.62
n-Eicosane (C20)	514145	558197	557428	522046	543011	538965	3.74
n-Heneicosane (C21)	510035	551150	550658	517928	543127	534580	3.61
n-Docosane (C22)	492566	535492	537903	515079	556339	527476	4.62
n-Tetracosane (C24)	465821	513434	522594	521753	566575	518035	6.92
n-Hexacosane (C26)	441227	493661	514427	534137	569092	510509	9.34
n_Octacosane (C28)	428208	491903	532060	546621	573163	514391	10.97
n-Triacontane (C30)	428882	507429	552810	559737	579714	525714	11.46
n-Dotriacontane (C32)	452383	540744	577377	577401	593912	548364	10.41
n-Tetratriacontane (C34)	474808	559182	584182	580427	594736	558667	8.70
n-Hexatriacontane (C36)	494772	575937	595512	589258	603087	571713	7.72
n-Octatriacontane (C38)	488578	568203	584919	577821	590713	562047	7.46
n-Tetracontane (40)	453938	552714	569823	562875	575810	543032	9.31
C9-C12	1703973	1809003	1770181	1716565	1689849	1737914	2.88
C12-C16	1223487	1265193	1255790	1173985	1154377	1214566	4.04
C16-C21	1667123	1738580	1719676	1599882	1645983	1674249	3.35
C21-C40	6381912	5722113	5751623	5677082	5869003	5880347	4.92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6153.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ALI_L5_IAS_4667,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:43:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.76	436473363	1042.916 ng
Spiked Amount	50.000		Recovery	= 2085.83%
24) S	o-Terphenyl	9.77	566805157	982.993 ng
Spiked Amount	50.000		Recovery	= 1965.99%
25) S	Naphthalene	3.00	619259304	1011.777 ng
Spiked Amount	50.000		Recovery	= 2023.55%
26) S	2-Methylnaphthalene	3.84	639240274	1014.195 ng
Spiked Amount	50.000		Recovery	= 2028.39%
	Target Compounds			
2) T	n-Nonane (C9)	1.30	541607514	989.933 ng
3) T	n-Decane (C10)	1.80	561431891	995.593 ng
4) T	n-Dodecane (C12)	3.07	579223329	996.241 ng
5) T	n-Tetradecane (C14)	4.68	579259255	985.390 ng
6) T	n-Hexadecane (C16)	6.68	559628945	969.980 ng
7) T	n-Octadecane (C18)	8.83	540211847	975.025 ng
8) T	n-Eicosane (C20)	10.92	543011484	1007.507 ng
9) T	n-Heneicosane (C21)	11.93	543126835	1015.988 ng
10) T	n-Docosane (C22)	12.89	556338936	1054.719 ng
11) T	n-Tetracosane (C24)	14.72	566575242	1093.700 ng
12) T	n-Hexacosane (C26)	16.41	569092121	1114.755 ng
13) T	n-Octacosane (C28)	17.99	573163019	1114.256 ng
14) T	n-Triacontane (C30)	19.48	579714493	1102.718 ng
15) T	n-Dotriacontane (C32)	20.83	593912209	1083.063 ng
16) T	n-Tetratriacontane (C34)	21.63	594735698	1064.562 ng
17) T	n-Hexatriacontane (C36)	22.41	603087162	1054.877 ng
18) T	n-Octatriacontane (C38)	23.36	590713318	1051.004 ng
19) T	n-Tetracontane (C40)	24.61	575810093	1060.361 ng
20) H	C9-C12	2.25	1689849312	2917.030 ng
21) H	C12-C16	5.20	1154377036	1900.888 ng
22) H	C16-C21	9.65	1645982501	2949.351 ng
23) H	C21-C40	18.70	5869003357	9980.710 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

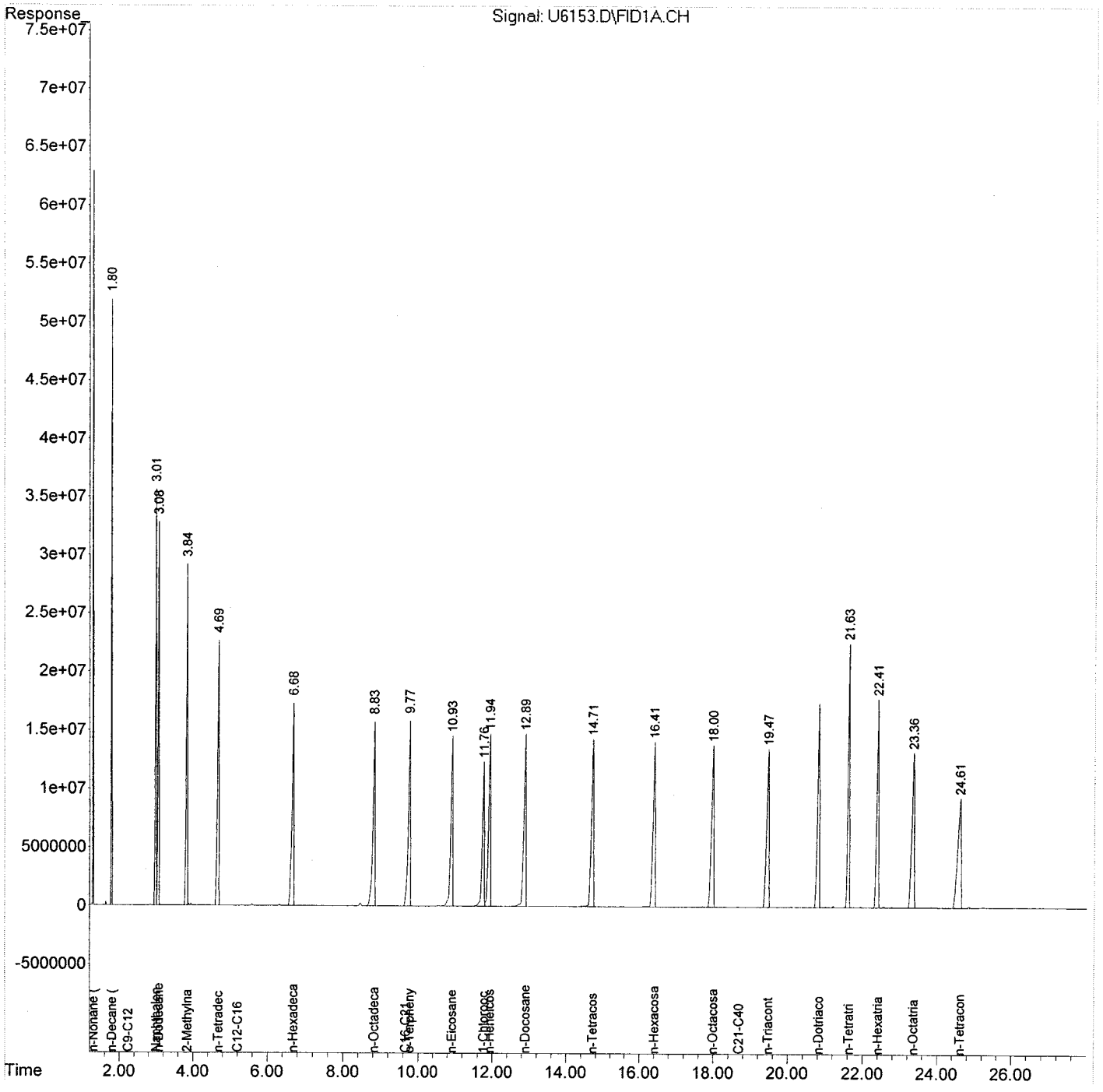
E13-09135

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6153.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ALI_L5_IAS_4667,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:43:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6154.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ALI_L4_IAS_4668.500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.73	204816765	489.392 ng
Spiked Amount	50.000		Recovery	= 978.78%
24) S	o-Terphenyl	9.73	281366507	487.965 ng
Spiked Amount	50.000		Recovery	= 975.93%
25) S	Naphthalene	2.99	311116567	508.318 ng
Spiked Amount	50.000		Recovery	= 1016.64%
26) S	2-Methylnaphthalene	3.82	321898520	510.712 ng
Spiked Amount	50.000		Recovery	= 1021.42%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	276021271	504.503 ng
3) T	n-Decane (C10)	1.79	283946143	503.524 ng
4) T	n-Dodecane (C12)	3.06	293407404	504.649 ng
5) T	n-Tetradecane (C14)	4.67	294231496	500.523 ng
6) T	n-Hexadecane (C16)	6.66	283775097	491.855 ng
7) T	n-Octadecane (C18)	8.80	269252447	485.972 ng
8) T	n-Eicosane (C20)	10.89	261023162	484.304 ng
9) T	n-Heneicosane (C21)	11.89	258964214	484.426 ng
10) T	n-Docosane (C22)	12.85	257539496	488.249 ng
11) T	n-Tetracosane (C24)	14.68	260876282	503.588 ng
12) T	n-Hexacosane (C26)	16.37	267068325	523.142 ng
13) T	n-Octacosane (C28)	17.95	273310488	531.328 ng
14) T	n-Triacontane (C30)	19.43	279868367	532.358 ng
15) T	n-Dotriacontane (C32)	20.79	288700273	526.476 ng
16) T	n-Tetratriacontane (C34)	21.60	290213720	519.475 ng
17) T	n-Hexatriacontane (C36)	22.38	294629066	515.344 ng
18) T	n-Octatriacontane (C38)	23.33	288910277	514.032 ng
19) T	n-Tetracontane (C40)	24.56	281437670	518.271 ng
20) H	C9-C12	2.25	858282585	1481.574 ng
21) H	C12-C16	5.20	586992589	966.588 ng
22) H	C16-C21	9.65	799941052	1433.373 ng
23) H	C21-C40	18.70	2838541245	4827.166 ng

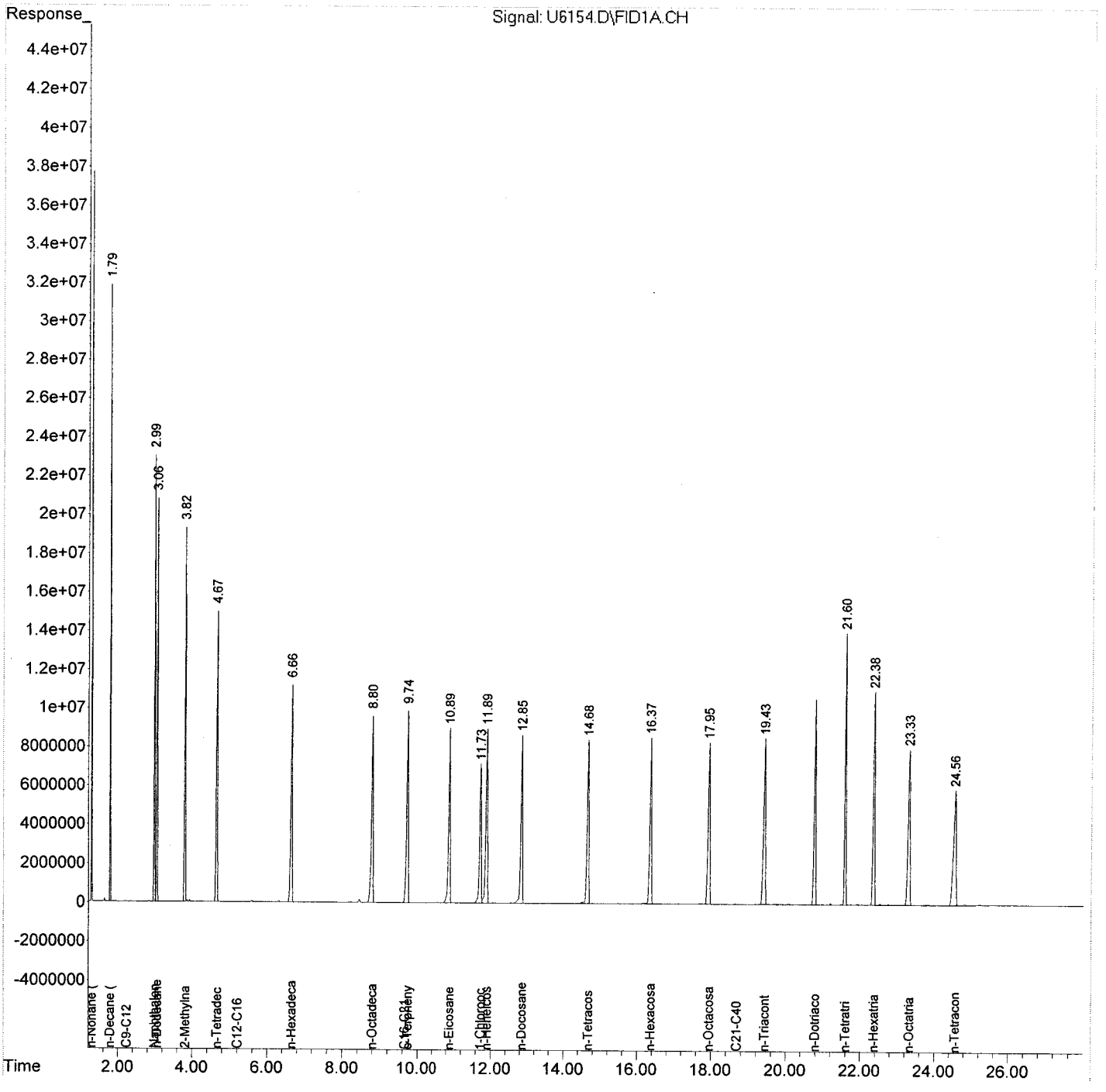
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6154.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ALI_L4_IAS_4668,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6155.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ALI_L3_IAS_4669.250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.71	107402094	256.628 ng
Spiked Amount	50.000		Recovery	= 513.26%
24) S	o-Terphenyl	9.72	150967638	261.819 ng
Spiked Amount	50.000		Recovery	= 523.64%
25) S	Naphthalene	2.98	159833248	261.143 ng
Spiked Amount	50.000		Recovery	= 522.29%
26) S	2-Methylnaphthalene	3.81	166418181	264.033 ng
Spiked Amount	50.000		Recovery	= 528.07%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	141559977	258.739 ng
3) T	n-Decane (C10)	1.79	145544317	258.095 ng
4) T	n-Dodecane (C12)	3.05	151900155	261.262 ng
5) T	n-Tetradecane (C14)	4.65	155731055	264.917 ng
6) T	n-Hexadecane (C16)	6.64	152494916	264.313 ng
7) T	n-Octadecane (C18)	8.78	145176716	262.028 ng
8) T	n-Eicosane (C20)	10.87	139356979	258.564 ng
9) T	n-Heneicosane (C21)	11.87	137664452	257.519 ng
10) T	n-Docosane (C22)	12.83	134475740	254.942 ng
11) T	n-Tetracosane (C24)	14.65	130648501	252.200 ng
12) T	n-Hexacosane (C26)	16.35	128606723	251.919 ng
13) T	n-Octacosane (C28)	17.93	133015058	258.587 ng
14) T	n-Triacontane (C30)	19.41	138202383	262.885 ng
15) T	n-Dotriacontane (C32)	20.77	144344350	263.227 ng
16) T	n-Tetratriacontane (C34)	21.59	146045542	261.418 ng
17) T	n-Hexatriacontane (C36)	22.36	148877950	260.407 ng
18) T	n-Octatriacontane (C38)	23.30	146229801	260.174 ng
19) T	n-Tetracontane (C40)	24.52	142455851	262.334 ng
20) H	C9-C12	2.25	442545156	763.925 ng
21) H	C12-C16	5.20	313947379	516.970 ng
22) H	C16-C21	9.65	429919004	770.350 ng
23) H	C21-C40	18.70	1437905785	2445.274 ng

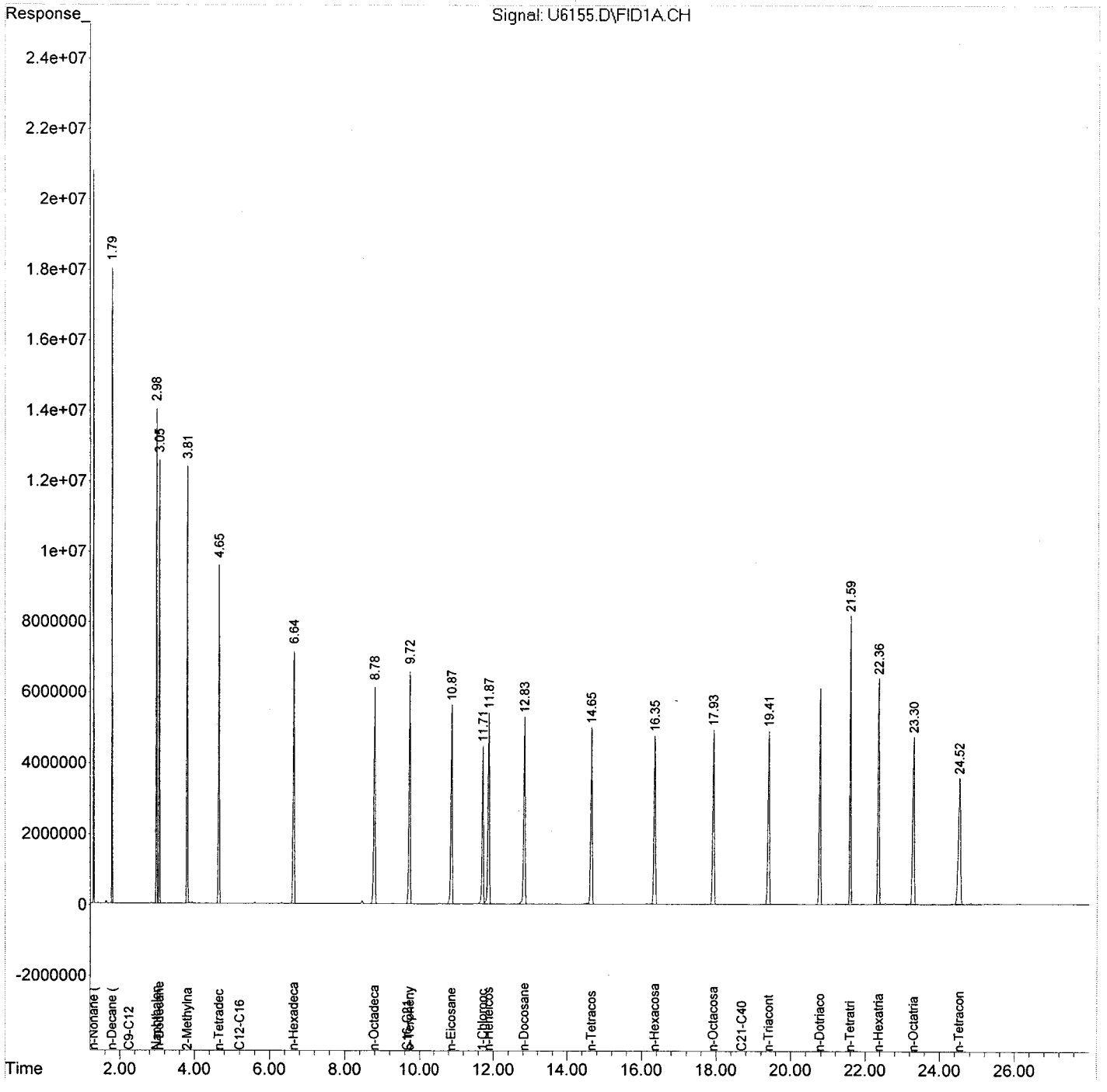
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6155.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ALI_L3_IAS_4669.250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6156.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ALI_L2_IAS_4670,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.69	42741511	102.127 ng
Spiked Amount	50.000		Recovery	= 204.25%
24) S	o-Terphenyl	9.70	60473018	104.877 ng
Spiked Amount	50.000		Recovery	= 209.75%
25) S	Naphthalene	2.97	63656337	104.005 ng
Spiked Amount	50.000		Recovery	= 208.01%
26) S	2-Methylnaphthalene	3.80	65571558	104.033 ng
Spiked Amount	50.000		Recovery	= 208.07%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	57569922	105.224 ng
3) T	n-Decane (C10)	1.78	58886943	104.425 ng
4) T	n-Dodecane (C12)	3.04	60694563	104.392 ng
5) T	n-Tetradecane (C14)	4.64	62082267	105.609 ng
6) T	n-Hexadecane (C16)	6.63	61057207	105.828 ng
7) T	n-Octadecane (C18)	8.77	58254593	105.143 ng
8) T	n-Eicosane (C20)	10.85	55819676	103.568 ng
9) T	n-Heneicosane (C21)	11.85	55115014	103.100 ng
10) T	n-Docosane (C22)	12.81	53549232	101.520 ng
11) T	n-Tetracosane (C24)	14.63	51343371	99.112 ng
12) T	n-Hexacosane (C26)	16.33	49366124	96.700 ng
13) T	n-Octacosane (C28)	17.91	49190277	95.628 ng
14) T	n-Triacontane (C30)	19.38	50742913	96.522 ng
15) T	n-Dotriacontane (C32)	20.75	54074419	98.611 ng
16) T	n-Tetratriacontane (C34)	21.58	55918209	100.092 ng
17) T	n-Hexatriacontane (C36)	22.34	57593688	100.739 ng
18) T	n-Octatriacontane (C38)	23.28	56820339	101.095 ng
19) T	n-Tetracontane (C40)	24.49	55271426	101.783 ng
20) H	C9-C12	2.25	180900268	312.271 ng
21) H	C12-C16	5.20	126519273	208.337 ng
22) H	C16-C21	9.65	173857990	311.527 ng
23) H	C21-C40	18.70	572211254	973.091 ng

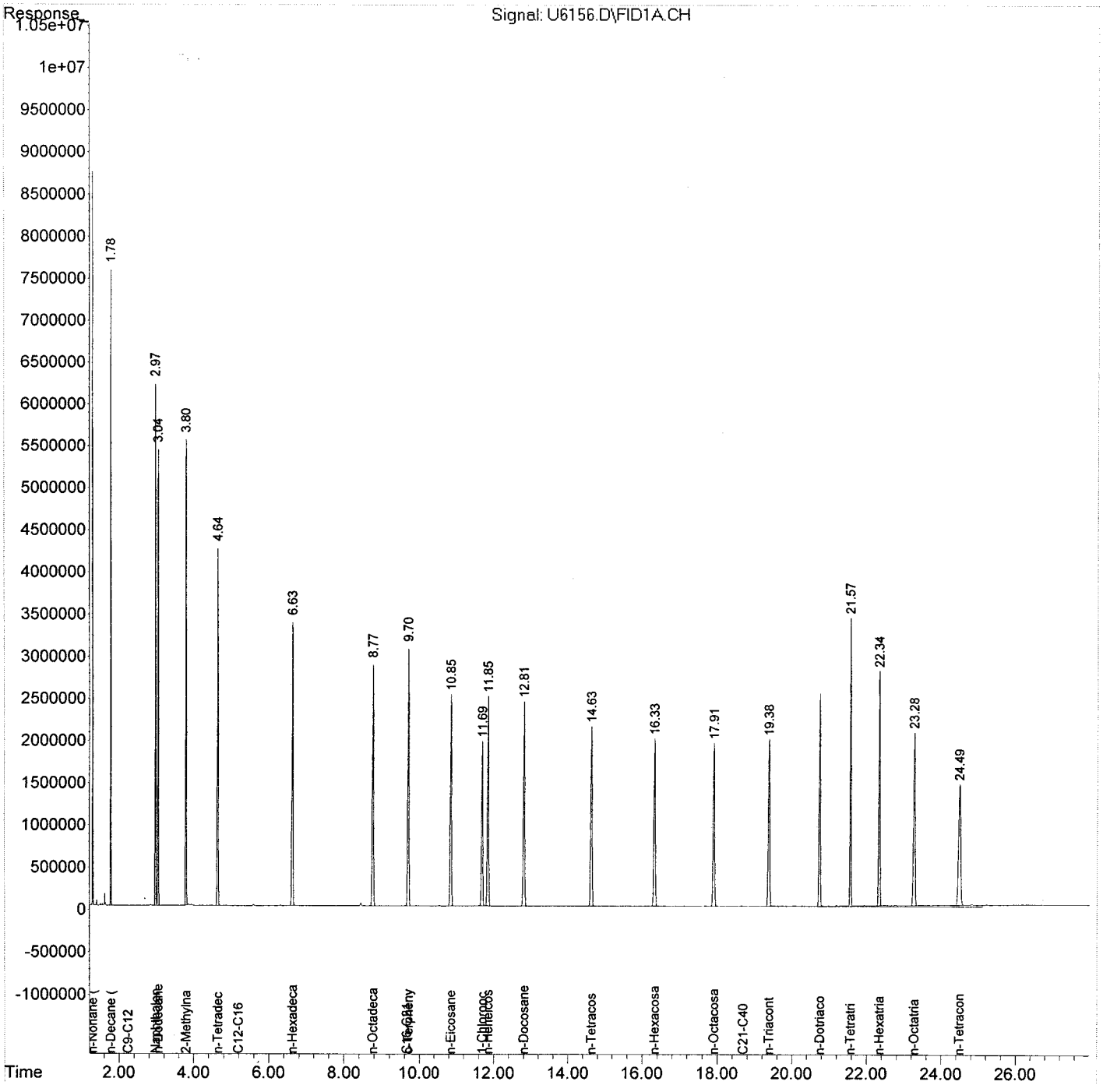
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6156.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ALI_L2_IAS_4670,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6157.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ALI_L1_IAS_4671,20_PPM
Misc : ,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.69	7788636	18.610 ng
Spiked Amount 50.000		Recovery =	37.22%
24) S o-Terphenyl	9.69	10898383	18.901 ng
Spiked Amount 50.000		Recovery =	37.80%
25) S Naphthalene	2.97	10857368	17.739 ng
Spiked Amount 50.000		Recovery =	35.48%
26) S 2-Methylnaphthalene	3.80	10940817	17.358 ng
Spiked Amount 50.000		Recovery =	34.72%
Target Compounds			
2) T n-Nonane (C9)	1.29	9999763	18.277 ng
3) T n-Decane (C10)	1.78	10384314	18.415 ng
4) T n-Dodecane (C12)	3.05	10529219	18.110 ng
5) T n-Tetradecane (C14)	4.64	10555405	17.956 ng
6) T n-Hexadecane (C16)	6.62	10740296	18.616 ng
7) T n-Octadecane (C18)	8.76	10565548	19.070 ng
8) T n-Eicosane (C20)	10.85	10282896	19.079 ng
9) T n-Heneicosane (C21)	11.84	10200707	19.082 ng
10) T n-Docosane (C22)	12.80	9851311	18.676 ng
11) T n-Tetracosane (C24)	14.63	9316426	17.984 ng
12) T n-Hexacosane (C26)	16.32	8824532	17.286 ng
13) T n-Octacosane (C28)	17.90	8564155	16.649 ng
14) T n-Triacontane (C30)	19.37	8577644	16.316 ng
15) T n-Dotriacontane (C32)	20.74	9047664	16.499 ng
16) T n-Tetratriacontane (C34)	21.57	9496158	16.998 ng
17) T n-Hexatriacontane (C36)	22.33	9895446	17.308 ng
18) T n-Octatriacontane (C38)	23.26	9771562	17.386 ng
19) T n-Tetracontane (C40)	24.47	9078754	16.719 ng
20) H C9-C12	2.25	34079465	58.828 ng
21) H C12-C16	5.20	24469736	40.294 ng
22) H C16-C21	9.65	33342456	59.745 ng
23) H C21-C40	18.70	127638248	217.059 ng

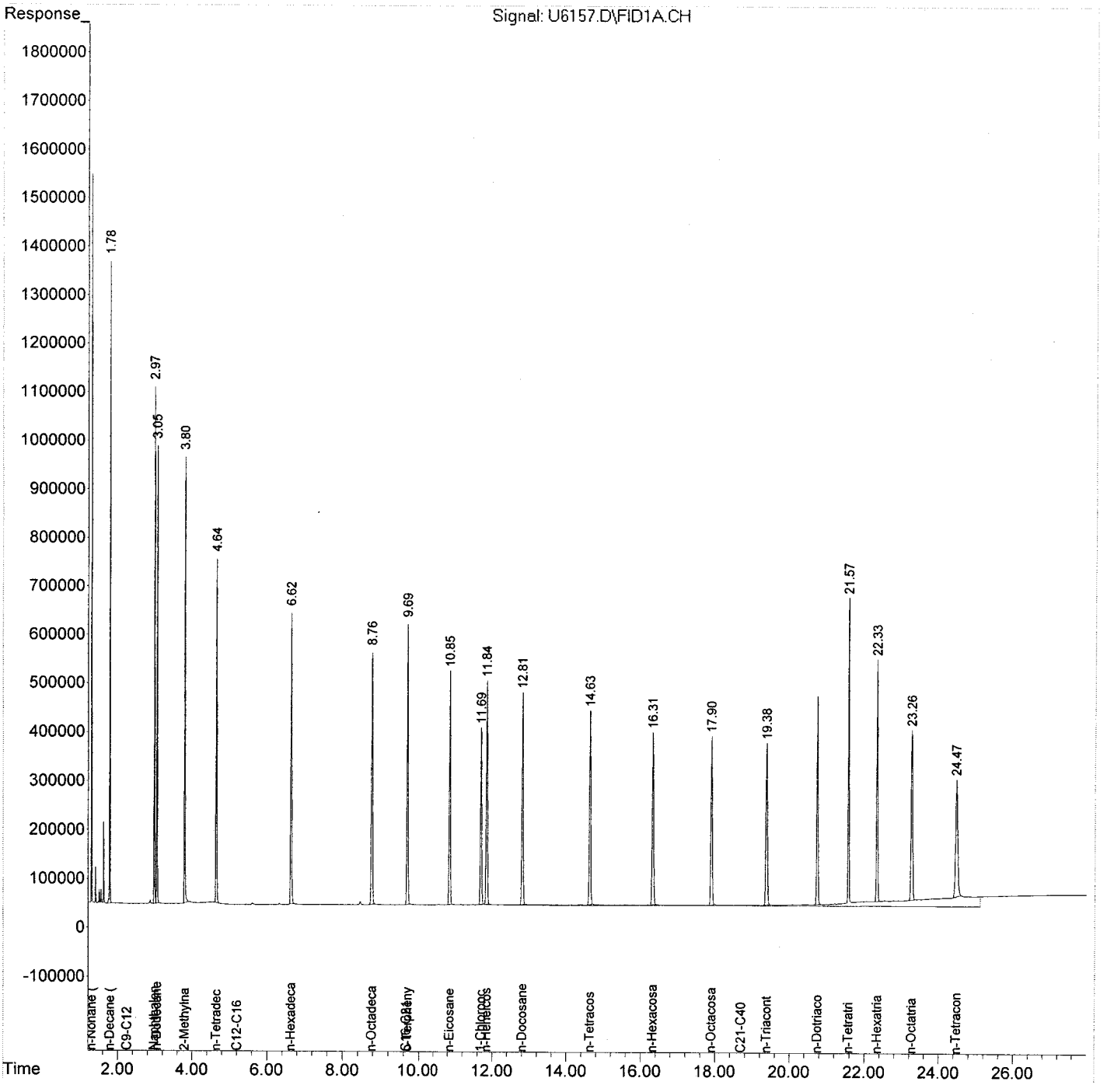
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6157.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ALI_L1_IAS_4671.20_PPM
Misc : ,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6158.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:52:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.72	107471186	256.793 ng
Spiked Amount 50.000		Recovery = 513.59%	
24) S o-Terphenyl	9.72	149942151	260.040 ng
Spiked Amount 50.000		Recovery = 520.08%	
25) S Naphthalene	2.99	159843086	261.160 ng
Spiked Amount 50.000		Recovery = 522.32%	
26) S 2-Methylnaphthalene	3.82	166046447	263.443 ng
Spiked Amount 50.000		Recovery = 526.89%	
Target Compounds			
2) T n-Nonane (C9)	1.30	141165683	258.018 ng
3) T n-Decane (C10)	1.79	145486090	257.992 ng
4) T n-Dodecane (C12)	3.06	151790134	261.073 ng
5) T n-Tetradecane (C14)	4.66	154902029	263.507 ng
6) T n-Hexadecane (C16)	6.65	151181819	262.037 ng
7) T n-Octadecane (C18)	8.79	144151667	260.178 ng
8) T n-Eicosane (C20)	10.88	139152763	258.185 ng
9) T n-Heneicosane (C21)	11.88	137964348	258.080 ng
10) T n-Docosane (C22)	12.84	135094400	256.115 ng
11) T n-Tetracosane (C24)	14.66	131968193	254.747 ng
12) T n-Hexacosane (C26)	16.35	129721076	254.102 ng
13) T n-Octacosane (C28)	17.93	133801020	260.115 ng
14) T n-Triacontane (C30)	19.41	138239027	262.955 ng
15) T n-Dotriacontane (C32)	20.78	143913015	262.441 ng
16) T n-Tetratriacontane (C34)	21.60	145552382	260.535 ng
17) T n-Hexatriacontane (C36)	22.37	148365686	259.511 ng
18) T n-Octatriacontane (C38)	23.31	145739611	259.302 ng
19) T n-Tetracontane (C40)	24.54	141944599	261.393 ng
20) H C9-C12	2.25	442139594	763.225 ng
21) H C12-C16	5.20	311927936	513.645 ng
22) H C16-C21	9.65	428766916	768.285 ng
23) H C21-C40	18.70	1436815247	2443.419 ng

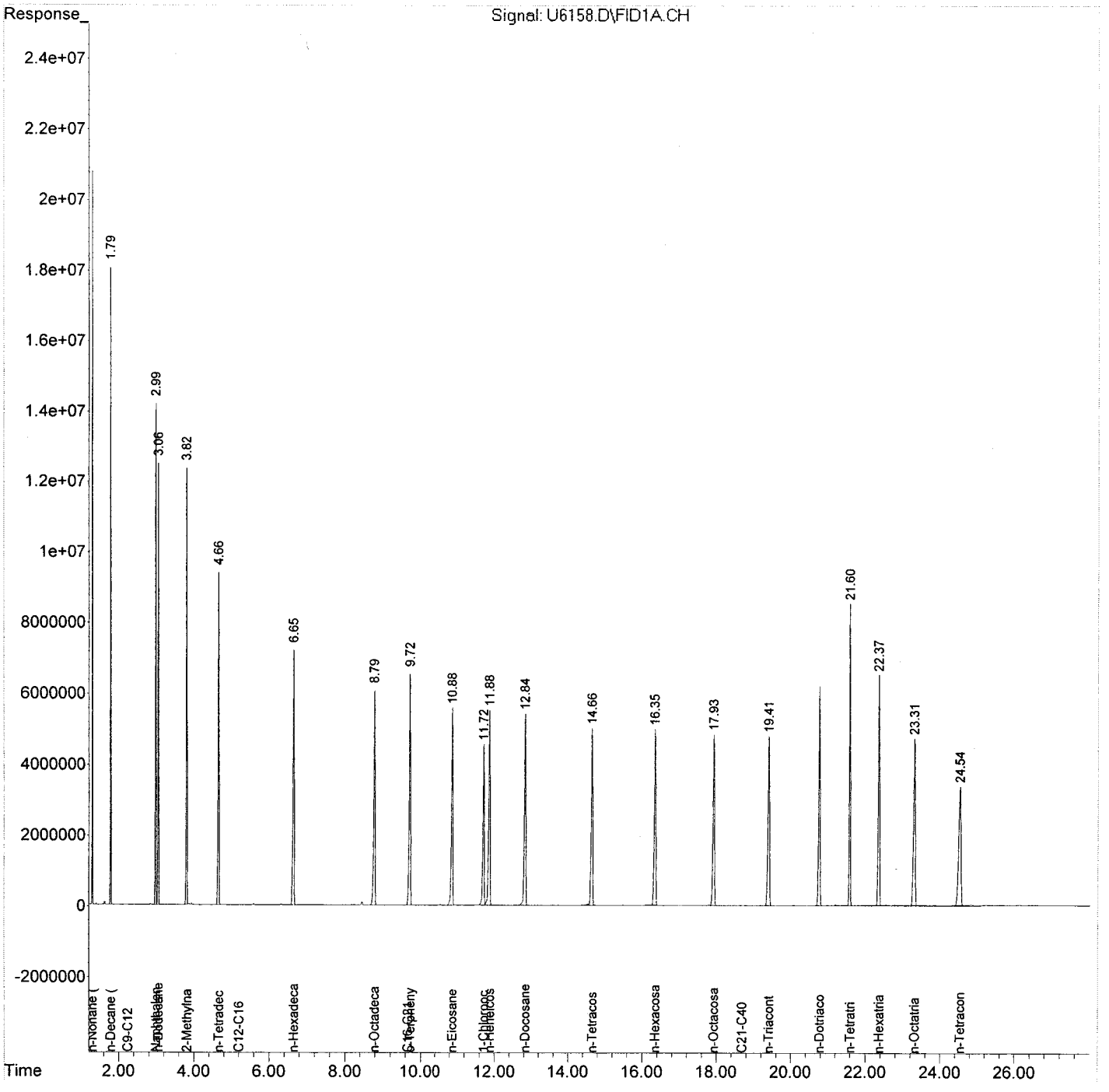
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6158.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:52:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U
GC Column : HP-5

Data File: UB4232.D UB4231.D UB4230.D UB4229.D UB4228.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	20	100	250	500	1000	RT	FROM	TO
1,2,3-Trimethylbenzene	1.91	1.90	1.90	1.90	1.91	1.91	1.79	2.03
Napthalene	2.99	2.94	2.94	2.94	2.95	2.95	2.83	3.07
2-Methylnaphthalene	3.80	3.75	3.75	3.75	3.77	3.76	3.64	3.88
Acenaphthylene	5.11	5.08	5.09	5.10	5.13	5.10	4.98	5.22
Acenaphthene	5.43	5.41	5.43	5.45	5.51	5.44	5.32	5.56
Fluorene	6.45	6.39	6.41	6.42	6.46	6.42	6.30	6.54
Phenanthrene	8.47	8.43	8.45	8.47	8.51	8.47	8.35	8.59
Anthracene	8.60	8.54	8.56	8.58	8.66	8.59	8.47	8.71
Fluoroanthene	11.33	11.28	11.30	11.32	11.38	11.32	11.20	11.44
Pyrene	11.83	11.78	11.80	11.83	11.90	11.83	11.71	11.95
Benzo[a]anthracene	14.90	14.86	14.89	14.92	14.99	14.91	14.79	15.03
Chrysene	15.01	14.95	14.99	15.03	15.13	15.02	14.90	15.14
Benzo[b]fluoranthene	17.54	17.45	17.56	17.60	17.71	17.57	17.45	17.69
Benzo[k]fluoranthene	17.54	17.45	17.56	17.60	17.71	17.57	17.45	17.69
Benzo[a]pyrene	18.23	18.12	18.15	18.20	18.32	18.20	18.08	18.32
Indeno[1,2,3-cd]pyrene	20.51	20.40	20.51	20.57	20.69	20.54	20.42	20.66
Dibenz[a,h]anthracene	20.51	20.40	20.51	20.57	20.69	20.54	20.42	20.66
Benzo[g,h,i]perylene	20.87	20.80	20.85	20.89	21.00	20.88	20.76	21.00
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	4.95	4.95	4.95	4.95	4.95	4.95	4.83	5.07
C16-C21	9.60	9.60	9.60	9.60	9.60	9.60	9.48	9.72
C21-C36	17.20	17.20	17.20	17.20	17.20	17.20	17.08	17.32

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U

GC Column : HP-5

Data File: UB4232.D UB4231.D UB4230.D UB4229.D UB4228.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	656651	608153	766709	644017	730176	681141	9.58
Napthalene	684270	641272	819811	683672	811005	728006	11.23
2-Methylnaphthalene	753227	686985	829065	689927	825365	756914	9.17
Acenaphthylene	778553	694544	877453	725685	865131	788273	10.36
Acenaphthene	725285	802434	927697	756283	882563	818853	10.37
Fluorene	828097	725743	904839	749713	893579	820394	9.92
Phenanthrene	715568	715881	914425	757401	910521	802759	12.66
Anthracene	935729	745471	915091	749730	892943	847793	10.94
Fluoroanthene	838926	757902	946388	781613	928367	850639	9.96
Pyrene	943007	776059	955439	763372	933217	874219	10.96
Benzo[a]anthracene	771856	702025	929031	777836	965370	829224	13.56
Chrysene	1004593	803629	903236	740017	828197	855934	11.87
Benzo[b]fluoranthene	1833506	1553705	1908202	1579356	1869109	1748775	9.65
Benzo[k]fluoranthene	1833506	1553705	1908202	1579356	1869109	1748775	9.65
Benzo[a]pyrene	935566	777317	955233	787542	927220	876576	9.88
Indeno[1,2,3-cd]pyrene	1472528	1425551	1823468	1529059	1823626	1614847	12.01
Dibenz[a,h]anthracene	1472528	1425551	1823468	1529059	1823626	1614847	12.01
Benzo[g,h,i]perylene	1041326	808471	958709	793000	927854	905872	11.56
C10-C12	1396530	1258442	1590621	1329759	1564971	1428065	10.18
C12-C16	2546649	2204035	2685998	2215700	2620813	2454639	9.32
C16-C21	4459229	3786955	4673045	3878333	4610413	4281595	9.77
C21-C36	7915497	6273517	7608551	6278714	7408183	7096892	10.86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4228.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ARO_L5_IAS_4661,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:18:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.36	955359900	1094.108	ng	
Spiked Amount	50.000		Recovery	= 2188.22%		
2) S	2-Bromonaphthalene	5.38	646688522	1203.882	ng	
Spiked Amount	50.000		Recovery	= 2407.76%		
3) S	o-Terphenyl	9.65	779891188	1076.028	ng	
Spiked Amount	50.000		Recovery	= 2152.06%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.91	730176227	1071.990	ng	
5) T	Napthalene	2.95	811004771	1114.008	ng	
6) T	2-Methylnaphthalene	3.77	825365373	1090.435	ng	
7) T	Acenaphthylene	5.13	865130842	1097.501	ng	
8) T	Acenaphthene	5.51	882563437	1042.233	ng	m
9) T	Fluorene	6.46	893579249	1089.207	ng	
10) T	Phenanthrene	8.51	910521449	1134.240	ng	
11) T	Anthracene	8.66	892943054	1054.505	ng	m
12) T	Fluoroanthene	11.38	928367082	1091.376	ng	
13) T	Pyrene	11.90	933217272	1067.487	ng	
14) T	Benzo[a]anthracene	14.99	965369828	1180.809	ng	
15) T	Chrysene	15.13	828196524	952.827	ng	m
16) T	Benzo[b]fluoranthene	17.71	1869108649	1068.810	ng	
17) T	Benzo[k]fluoranthene	17.71	1869108649	1068.810	ng	
18) T	Benzo[a]pyrene	18.32	927219995	1056.708	ng	m
19) T	Indeno[1,2,3-cd]pyrene	20.69	1823625958	1129.287	ng	
20) T	Dibenz[a,h]anthracene	20.69	1823625958	1129.287	ng	
21) T	Benzo[g,h,i]perylene	21.00	927854185	1024.266	ng	
22) H	C10-C12	2.70	1564971477	2198.669	ng	
23) H	C12-C16	4.95	2620813346	3199.363	ng	
24) H	C16-C21	9.60	4610413217	5382.616	ng	
25) H	C21-C36	17.20	7408182714	8350.903	ng	

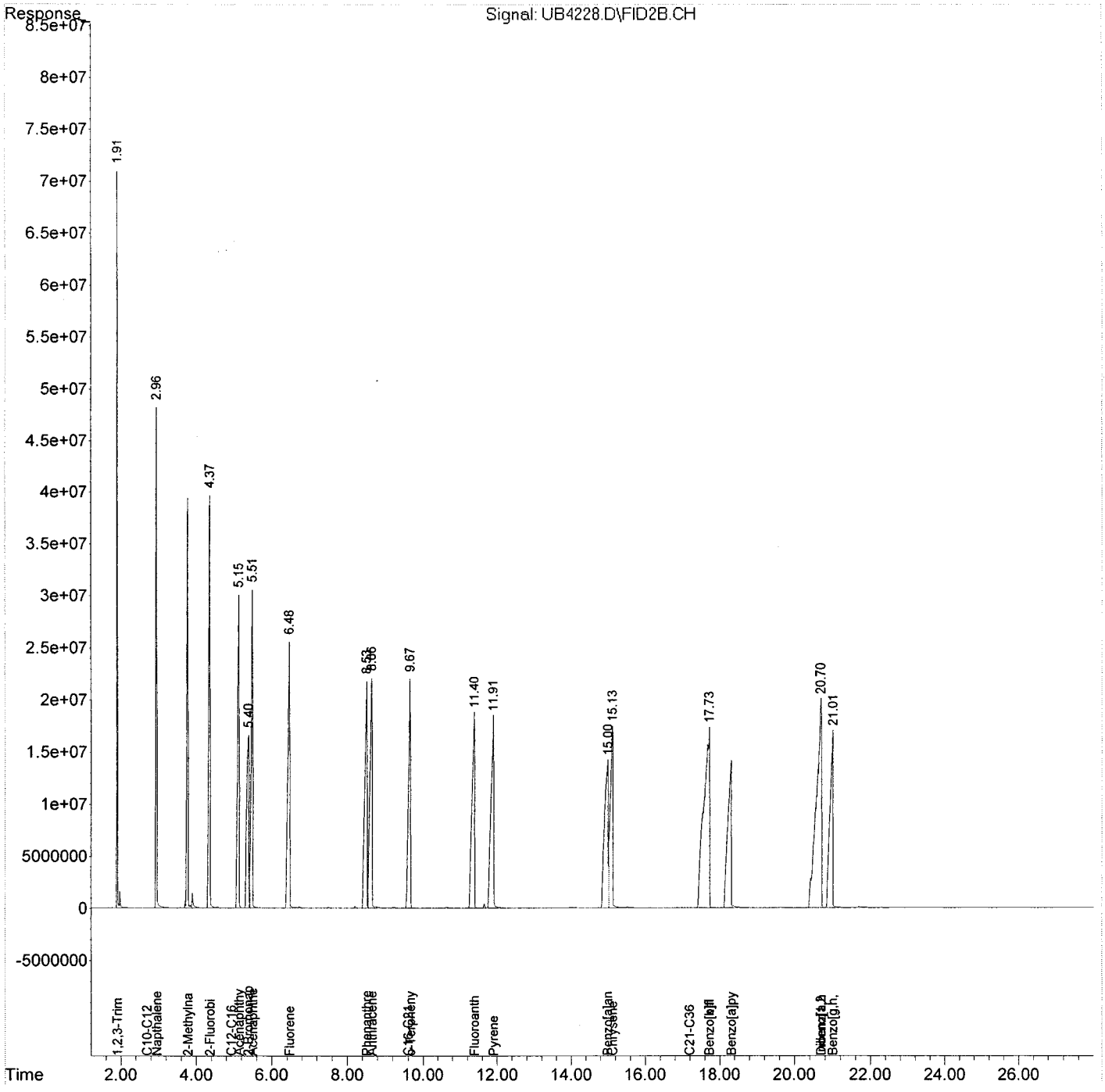
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4228.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ARO_L5_IAS_4661,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:18:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4229.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ARO_L4_IAS_4662,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:19:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.33	400965744	459.198 ng
Spiked Amount	50.000		Recovery =	918.40%
2) S	2-Bromonaphthalene	5.34	264824295	492.999 ng
Spiked Amount	50.000		Recovery =	986.00%
3) S	o-Terphenyl	9.61	325321920	448.852 ng
Spiked Amount	50.000		Recovery =	897.70%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	322008315	472.748 ng
5) T	Napthalene	2.94	341836110	469.551 ng
6) T	2-Methylnaphthalene	3.75	344963499	455.750 ng
7) T	Acenaphthylene	5.10	362842360	460.300 ng
8) T	Acenaphthene	5.45	378141360	446.553 ng
9) T	Fluorene	6.42	374856694	456.923 ng
10) T	Phenanthrene	8.47	378700709	471.749 ng
11) T	Anthracene	8.58	374864999	442.690 ng
12) T	Fluoroanthene	11.32	390806728	459.427 ng
13) T	Pyrene	11.83	381685878	436.602 ng
14) T	Benzo[a]anthracene	14.92	388917937	475.712 ng
15) T	Chrysene	15.03	370008563	425.689 ng
16) T	Benzo[b]fluoranthene	17.60	789677822	451.560 ng
17) T	Benzo[k]fluoranthene	17.60	789677822	451.560 ng
18) T	Benzo[a]pyrene	18.20	393771083	448.762 ng
19) T	Indeno[1,2,3-cd]pyrene	20.57	764529746	473.438 ng
20) T	Dibenz[a,h]anthracene	20.57	764529746	473.438 ng
21) T	Benzo[g,h,i]perylene	20.89	396499750	437.700 ng
22) H	C10-C12	2.70	664879727	934.107 ng
23) H	C12-C16	4.95	1107849952	1352.410 ng
24) H	C16-C21	9.60	1939166688	2263.960 ng
25) H	C21-C36	17.20	3139356903	3538.852 ng

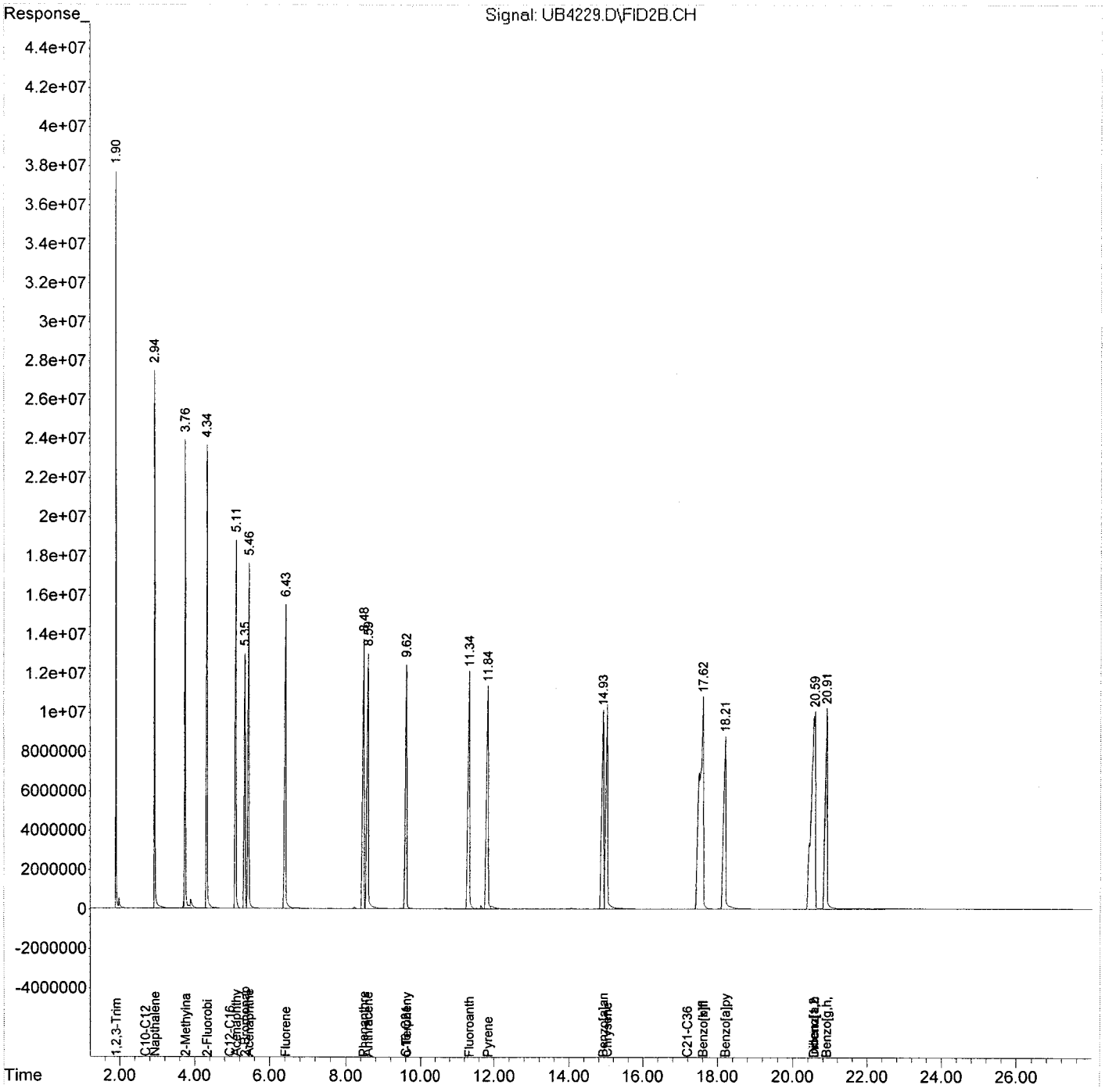
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4229.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ARO_L4_IAS_4662.500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:19:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4230.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ARO_L3_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:20:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.32	243991675	279.427 ng
Spiked Amount	50.000		Recovery =	558.85%
2) S	2-Bromonaphthalene	5.33	157254208	292.746 ng
Spiked Amount	50.000		Recovery =	585.49%
3) S	o-Terphenyl	9.60	200188057	276.203 ng
Spiked Amount	50.000		Recovery =	552.41%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	191677125	281.406 ng
5) T	Napthalene	2.94	204952823	281.526 ng
6) T	2-Methylnaphthalene	3.75	207266255	273.831 ng
7) T	Acenaphthylene	5.09	219363228	278.283 ng
8) T	Acenaphthene	5.43	231924220	273.883 ng
9) T	Fluorene	6.41	226209829	275.733 ng
10) T	Phenanthrene	8.45	228606131	284.775 ng
11) T	Anthracene	8.56	228772674	270.165 ng
12) T	Fluoroanthene	11.30	236597041	278.140 ng
13) T	Pyrene	11.80	238859648	273.226 ng
14) T	Benzo[a]anthracene	14.89	232257650	284.090 ng
15) T	Chrysene	14.99	225808914	259.790 ng
16) T	Benzo[b]fluoranthene	17.56	477050379	272.791 ng
17) T	Benzo[k]fluoranthene	17.56	477050379	272.791 ng
18) T	Benzo[a]pyrene	18.15	238808217	272.158 ng
19) T	Indeno[1,2,3-cd]pyrene	20.51	455867041	282.297 ng
20) T	Dibenz[a,h]anthracene	20.51	455867041	282.297 ng
21) T	Benzo[g,h,i]perylene	20.85	239677308	264.582 ng
22) H	C10-C12	2.70	397655160	558.676 ng
23) H	C12-C16	4.95	671499376	819.734 ng
24) H	C16-C21	9.60	1168261140	1363.935 ng
25) H	C21-C36	17.20	1902137812	2144.192 ng

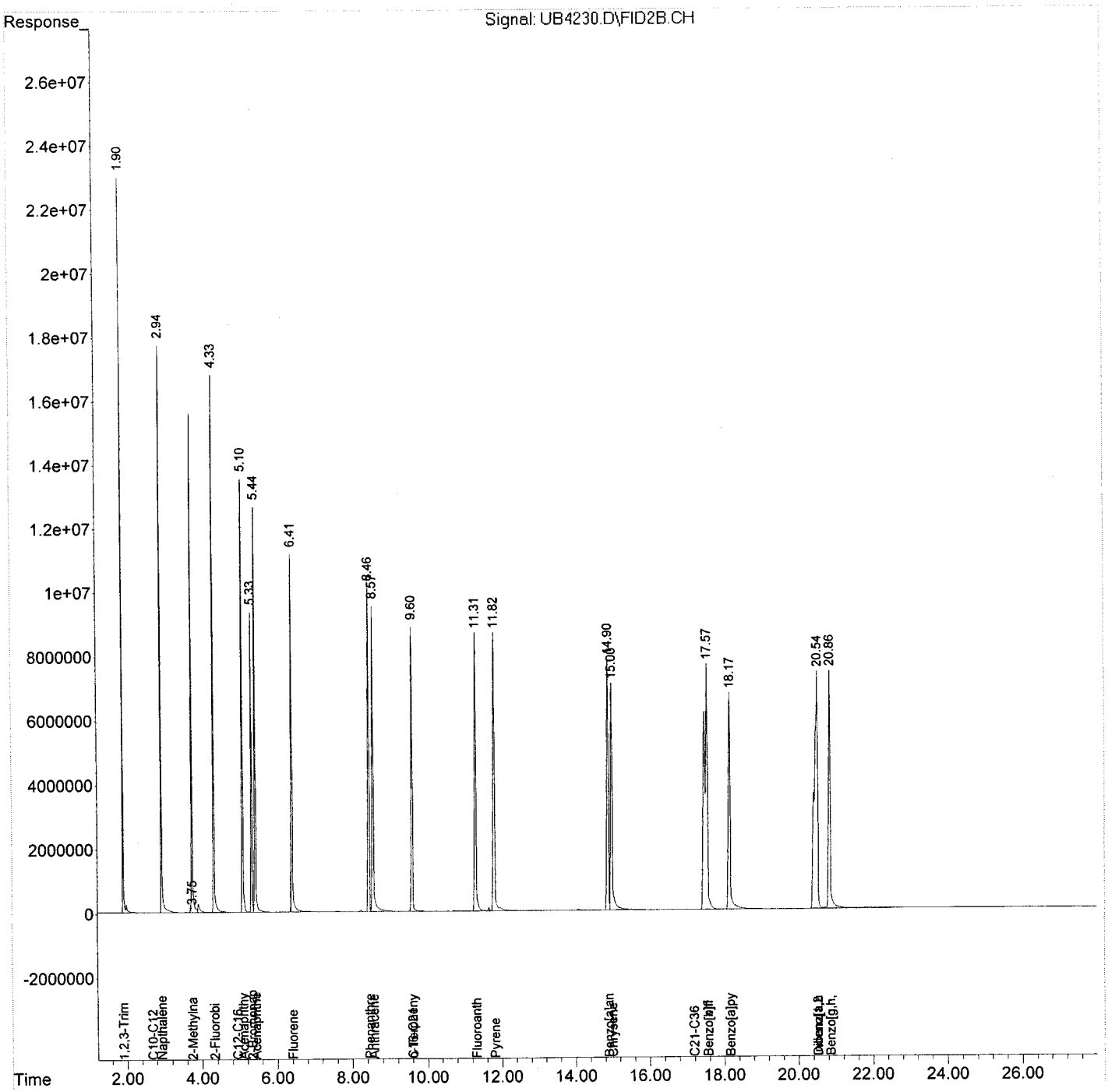
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4230.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ARO_L3_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:20:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4231.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ARO_L2_IAS_4664,100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:21:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.32	77117517	88.317 ng
Spiked Amount	50.000		Recovery =	176.63%
2) S	2-Bromonaphthalene	5.32	43377331	80.752 ng
Spiked Amount	50.000		Recovery =	161.50%
3) S	o-Terphenyl	9.58	63926856	88.201 ng
Spiked Amount	50.000		Recovery =	176.40%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	60815255	89.284 ng
5) T	Napthalene	2.94	64127242	88.086 ng
6) T	2-Methylnaphthalene	3.75	68698485	90.761 ng
7) T	Acenaphthylene	5.08	69454438	88.110 ng
8) T	Acenaphthene	5.41	80243447	94.761 ng
9) T	Fluorene	6.39	72574313	88.463 ng
10) T	Phenanthrene	8.43	71588095	89.178 ng
11) T	Anthracene	8.54	74547136	88.035 ng
12) T	Fluoroanthene	11.28	75790178	89.098 ng
13) T	Pyrene	11.78	77605866	88.772 ng
14) T	Benzo[a]anthracene	14.86	70202549	85.869 ng
15) T	Chrysene	14.95	80362939	92.456 ng
16) T	Benzo[b]fluoranthene	17.45	155370472	88.845 ng
17) T	Benzo[k]fluoranthene	17.45	155370472	88.845 ng
18) T	Benzo[a]pyrene	18.12	77731696	88.587 ng
19) T	Indeno[1,2,3-cd]pyrene	20.40	142555136	88.278 ng
20) T	Dibenz[a,h]anthracene	20.40	142555136	88.278 ng
21) T	Benzo[g,h,i]perylene	20.80	80847142	89.248 ng
22) H	C10-C12	2.70	125844213	176.802 ng
23) H	C12-C16	4.95	220403489	269.058 ng
24) H	C16-C21	9.60	378695509	442.124 ng
25) H	C21-C36	17.20	627351740	707.185 ng

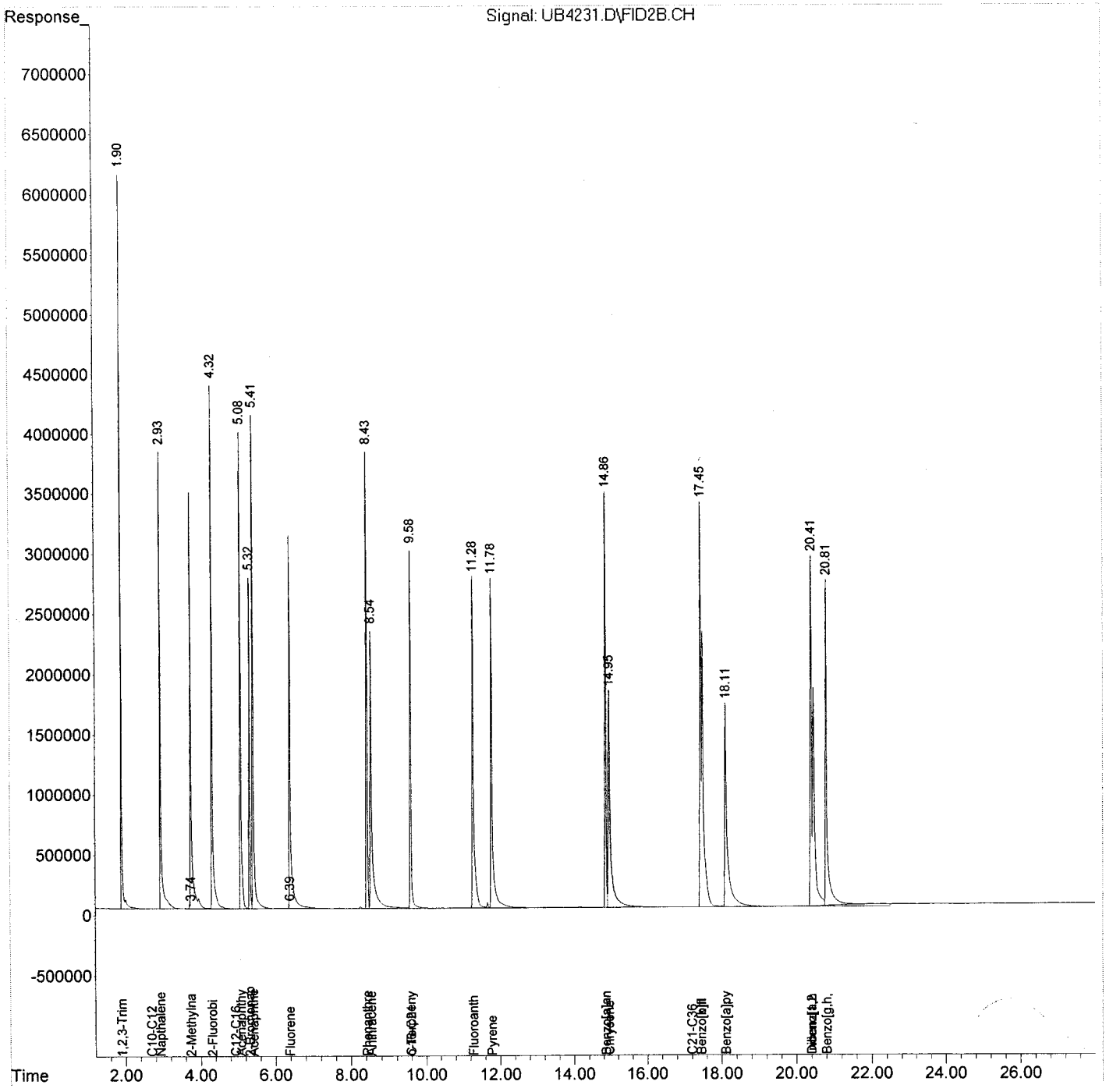
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4231.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ARO_L2_IAS_4664,100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:21:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4232.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ARO_L1_IAS_4665,20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:36:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.35	17229985	19.732	ng	
Spiked Amount	50.000		Recovery =	39.46%		
2) S	2-Bromonaphthalene	5.42	9298294	17.310	ng	m
Spiked Amount	50.000		Recovery =	34.62%		
3) S	o-Terphenyl	9.59	15067581	20.789	ng	
Spiked Amount	50.000		Recovery =	41.58%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.91	13133015	19.281	ng	
5) T	Napthalene	2.99	13685394	18.798	ng	
6) T	2-Methylnaphthalene	3.80	15064544	19.903	ng	
7) T	Acenaphthylene	5.11	15571055	19.753	ng	
8) T	Acenaphthene	5.43	14505706	17.130	ng	m
9) T	Fluorene	6.45	16561941	20.188	ng	
10) T	Phenanthrene	8.47	14311370	17.828	ng	
11) T	Anthracene	8.60	18714585	22.101	ng	
12) T	Fluoroanthene	11.33	16778527	19.725	ng	
13) T	Pyrene	11.83	18860134	21.574	ng	
14) T	Benzo[a]anthracene	14.90	15437122	18.882	ng	m
15) T	Chrysene	15.01	20091870	23.115	ng	m
16) T	Benzo[b]fluoranthene	17.54	36670113	20.969	ng	
17) T	Benzo[k]fluoranthene	17.54	36670113	20.969	ng	
18) T	Benzo[a]pyrene	18.23	18711315	21.324	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.51	29450552	18.237	ng	
20) T	Dibenz[a,h]anthracene	20.51	29450552	18.237	ng	
21) T	Benzo[g,h,i]perylene	20.87	20826517	22.991	ng	
22) H	C10-C12	2.70	27930599	39.240	ng	
23) H	C12-C16	4.95	50932986	62.177	ng	
24) H	C16-C21	9.60	89184571	104.122	ng	
25) H	C21-C36	17.20	158309943	178.456	ng	

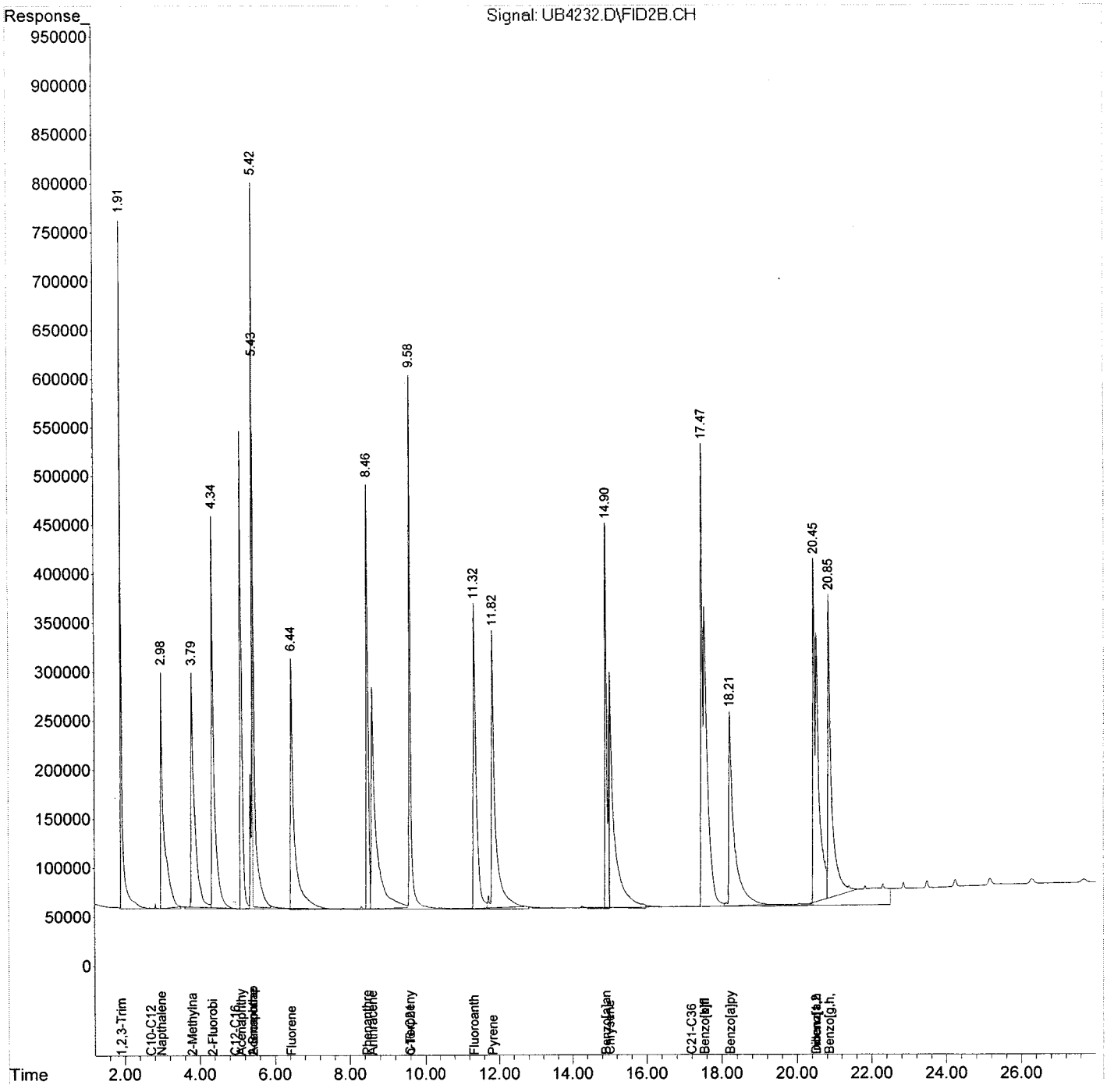
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4232.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ARO_L1_IAS_4665,20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:36:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-03-13\
Data File : UB4233.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:58:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.32	242422886	277.630 ng
Spiked Amount	50.000		Recovery	= 555.26%
2) S	2-Bromonaphthalene	5.33	156327660	289.063 ng
Spiked Amount	50.000		Recovery	= 578.13%
3) S	o-Terphenyl	9.60	199620123	275.419 ng
Spiked Amount	50.000		Recovery	= 550.84%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	189186801	277.750 ng
5) T	Napthalene	2.93	202860896	278.653 ng
6) T	2-Methylnaphthalene	3.75	205290886	271.221 ng
7) T	Acenaphthylene	5.09	218041577	276.607 ng
8) T	Acenaphthene	5.43	230702373	281.739 ng
9) T	Fluorene	6.41	225265385	274.582 ng
10) T	Phenanthrene	8.45	227937331	283.942 ng
11) T	Anthracene	8.56	227849024	268.756 ng
12) T	Fluoroanthene	11.30	236268038	277.753 ng
13) T	Pyrene	11.81	238298167	272.584 ng
14) T	Benzo[a]anthracene	14.89	234503188	282.799 ng
15) T	Chrysene	14.99	222607024	260.075 ng
16) T	Benzo[b]fluoranthene	17.56	475985042	272.182 ng
17) T	Benzo[k]fluoranthene	17.56	475985042	272.182 ng
18) T	Benzo[a]pyrene	18.16	237648276	271.110 ng
19) T	Indeno[1,2,3-cd]pyrene	20.53	455836564	282.279 ng
20) T	Dibenz[a,h]anthracene	20.53	455836564	282.279 ng
21) T	Benzo[g,h,i]perylene	20.86	241601622	266.706 ng
22) H	C10-C12	2.70	393155637	550.613 ng
23) H	C12-C16	4.95	667247563	815.494 ng
24) H	C16-C21	9.60	1170243322	1366.597 ng
25) H	C21-C36	17.20	1896484173	2137.819 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

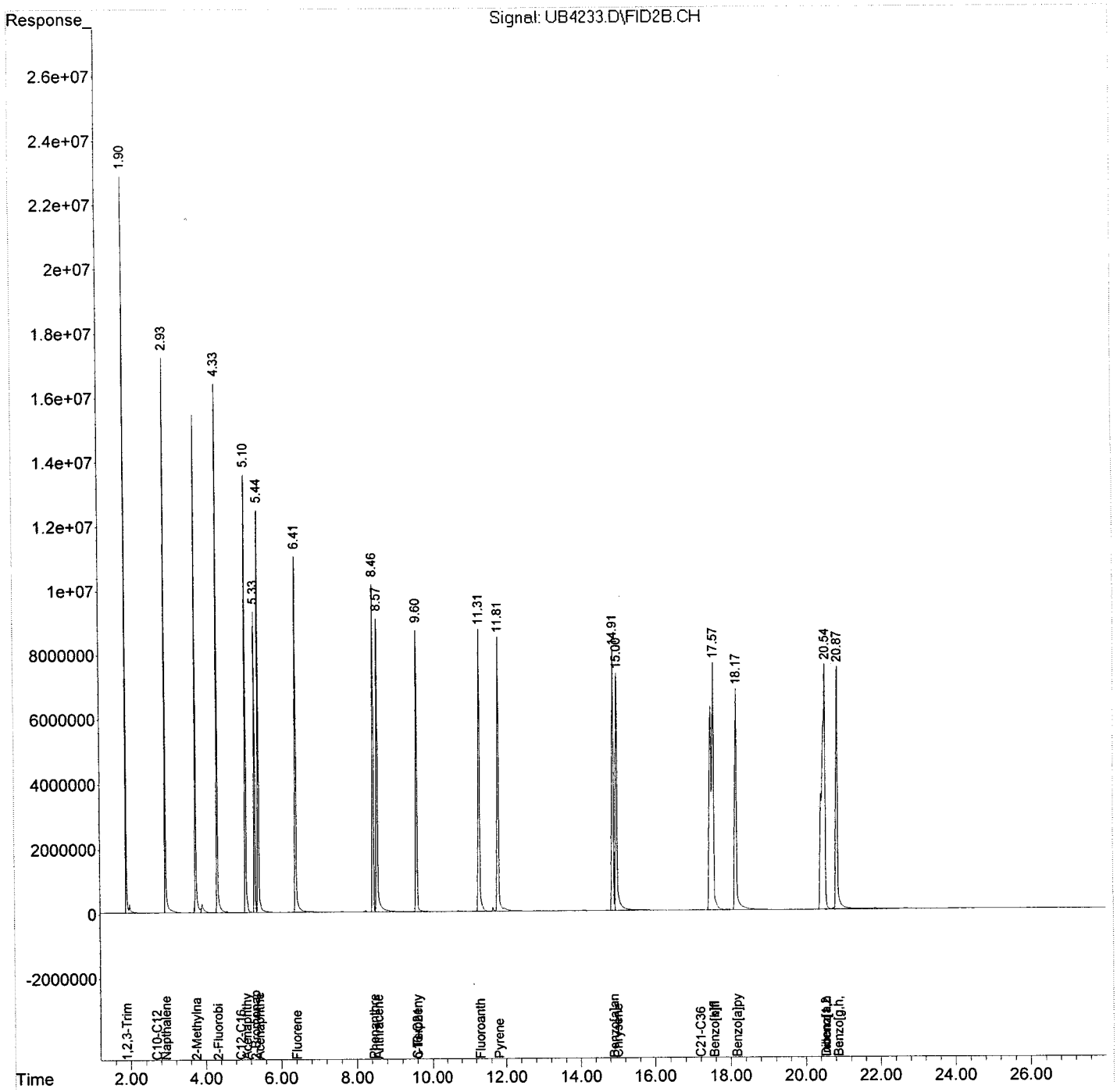
E13-09135 0364

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-03-13\
Data File : UB4233.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:58:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-U

Data File: U6382.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.29	1.22	1.36	547115	600199	9.70
n-Decane (C10)	1.78	1.72	1.86	563917	617649	9.53
n-Dodecane (C12)	3.05	2.98	3.14	581409	639543	10.00
n-Tetradecane (C14)	4.65	4.57	4.75	587848	640768	9.00
n-Hexadecane (C16)	6.63	6.54	6.76	576949	612508	6.16
n-Octadecane (C18)	8.77	8.67	8.91	554049	571861	3.21
n-Eicosane (C20)	10.86	10.76	11.00	538965	543891	0.91
n-Heneicosane (C21)	11.86	11.74	12.02	534580	539154	0.86
n-Docosane (C22)	12.82	12.70	12.98	527476	529686	0.42
n-Tetracosane (C24)	14.64	14.51	14.81	518035	531613	2.62
n-Hexacosane (C26)	16.33	16.20	16.50	510509	551012	7.93
n_Octacosane (C28)	17.92	17.79	18.09	514391	578450	12.45
n-Triacontane (C30)	19.39	19.26	19.56	525714	596443	13.45
n-Dotriacontane (C32)	20.76	20.66	20.90	548364	615895	12.32
n-Tetratriacontane (C34)	21.58	21.47	21.71	558667	618098	10.64
n-Hexatriacontane (C36)	22.34	22.21	22.51	571713	626113	9.52
n-Octatriacontane (C38)	23.28	23.16	23.46	562047	611814	8.85
n-Tetracontane (40)	24.50	24.38	24.68	543032	587257	8.14
C9-C12	2.25	2.15	2.35	1737914	1870160	7.61
C12-C16	5.20	5.10	5.30	1214566	1276499	5.10
C16-C21	9.65	9.54	9.76	1674249	1684445	0.61
C21-C40	18.70	18.59	18.81	5880347	6033776	2.61

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/25/2013 **Instrument ID:** GC-U

Data File: U6398.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.29	1.22	1.36	547115	632056	15.53
n-Decane (C10)	1.78	1.72	1.86	563917	646758	14.69
n-Dodecane (C12)	3.05	2.98	3.14	581409	661802	13.83
n-Tetradecane (C14)	4.65	4.57	4.75	587848	653302	11.13
n-Hexadecane (C16)	6.63	6.54	6.76	576949	616147	6.79
n-Octadecane (C18)	8.77	8.67	8.91	554049	570258	2.93
n-Eicosane (C20)	10.86	10.76	11.00	538965	539555	0.11
n-Heneicosane (C21)	11.86	11.74	12.02	534580	535221	0.12
n-Docosane (C22)	12.82	12.70	12.98	527476	527001	0.09
n-Tetracosane (C24)	14.64	14.51	14.81	518035	534697	3.22
n-Hexacosane (C26)	16.33	16.20	16.50	510509	557431	9.19
n_Octacosane (C28)	17.92	17.79	18.09	514391	587299	14.17
n-Triacontane (C30)	19.39	19.26	19.56	525714	607527	15.56
n-Dotriacontane (C32)	20.76	20.66	20.90	548364	627725	14.47
n-Tetratriacontane (C34)	21.58	21.47	21.71	558667	629934	12.76
n-Hexatriacontane (C36)	22.35	22.21	22.51	571713	637937	11.58
n-Octatriacontane (C38)	23.28	23.16	23.46	562047	622971	10.84
n-Tetracontane (40)	24.50	24.38	24.68	543032	594819	9.54
C9-C12	2.25	2.15	2.35	1737914	1952746	12.36
C12-C16	5.20	5.10	5.30	1214566	1292342	6.40
C16-C21	9.65	9.54	9.76	1674249	1690081	0.95
C21-C40	18.70	18.59	18.81	5880347	6139477	4.41

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6382.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:26:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.70	104194674	248.964 ng
Spiked Amount	50.000		Recovery =	497.93%
24) S	o-Terphenyl	9.70	144815731	251.150 ng
Spiked Amount	50.000		Recovery =	502.30%
25) S	Naphthalene	2.97	167495529	273.663 ng
Spiked Amount	50.000		Recovery =	547.33%
26) S	2-Methylnaphthalene	3.80	172244303	273.276 ng
Spiked Amount	50.000		Recovery =	546.55%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	150049820	274.256 ng
3) T	n-Decane (C10)	1.78	154412179	273.821 ng
4) T	n-Dodecane (C12)	3.05	159885737	274.997 ng
5) T	n-Tetradecane (C14)	4.65	160191879	272.506 ng
6) T	n-Hexadecane (C16)	6.63	153126972	265.408 ng
7) T	n-Octadecane (C18)	8.77	142965246	258.037 ng
8) T	n-Eicosane (C20)	10.86	135972646	252.285 ng
9) T	n-Heneicosane (C21)	11.86	134788471	252.139 ng
10) T	n-Docosane (C22)	12.82	132421388	251.047 ng
11) T	n-Tetracosane (C24)	14.64	132903221	256.552 ng
12) T	n-Hexacosane (C26)	16.33	137753104	269.835 ng
13) T	n-Octacosane (C28)	17.92	144612464	281.133 ng
14) T	n-Triacontane (C30)	19.39	149110753	283.635 ng
15) T	n-Dotriacontane (C32)	20.76	153973634	280.788 ng
16) T	n-Tetratriacontane (C34)	21.58	154524466	276.595 ng
17) T	n-Hexatriacontane (C36)	22.34	156528285	273.788 ng
18) T	n-Octatriacontane (C38)	23.28	152953528	272.137 ng
19) T	n-Tetracontane (C40)	24.50	146814296	270.360 ng
20) H	C9-C12	2.25	467539963	807.071 ng
21) H	C12-C16	5.20	319124824	525.496 ng
22) H	C16-C21	9.65	421111359	754.568 ng
23) H	C21-C40	18.70	1508444092	2565.230 ng

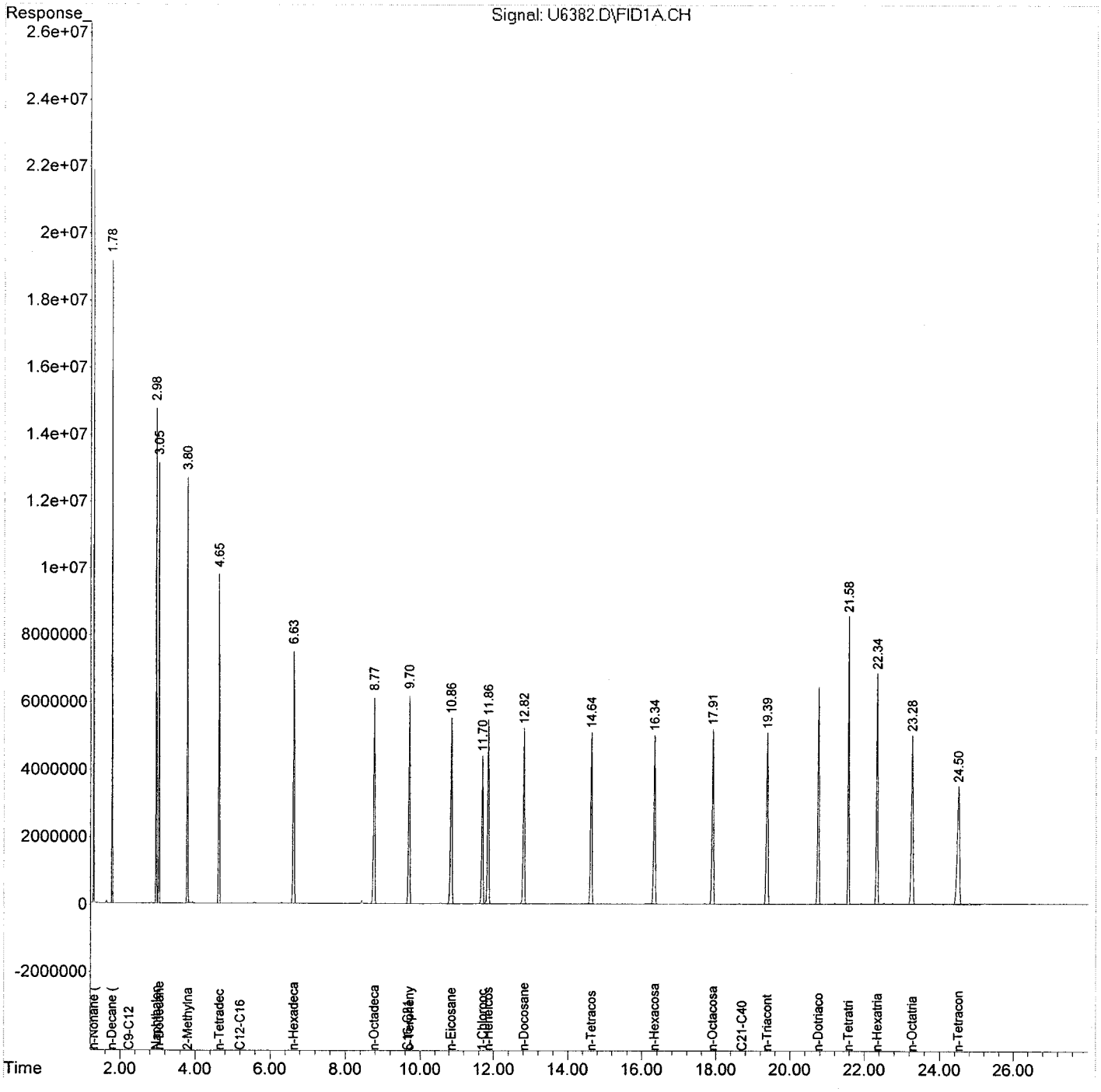
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6382.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:26:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6398.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:28:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.70	103238663	246.680 ng
Spiked Amount	50.000		Recovery =	493.36%
24) S	o-Terphenyl	9.70	144411551	250.449 ng
Spiked Amount	50.000		Recovery =	500.90%
25) S	Naphthalene	2.98	173538591	283.536 ng
Spiked Amount	50.000		Recovery =	567.07%
26) S	2-Methylnaphthalene	3.80	177013804	280.844 ng
Spiked Amount	50.000		Recovery =	561.69%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	158014116	288.813 ng
3) T	n-Decane (C10)	1.78	161689470	286.725 ng
4) T	n-Dodecane (C12)	3.05	165450416	284.568 ng
5) T	n-Tetradecane (C14)	4.65	163325557	277.836 ng
6) T	n-Hexadecane (C16)	6.63	154036697	266.985 ng
7) T	n-Octadecane (C18)	8.77	142564501	257.314 ng
8) T	n-Eicosane (C20)	10.86	134888764	250.273 ng
9) T	n-Heneicosane (C21)	11.86	133805256	250.300 ng
10) T	n-Docosane (C22)	12.82	131750125	249.775 ng
11) T	n-Tetracosane (C24)	14.64	133674271	258.041 ng
12) T	n-Hexacosane (C26)	16.33	139357776	272.978 ng
13) T	n-Octacosane (C28)	17.92	146824668	285.434 ng
14) T	n-Triacontane (C30)	19.39	151881661	288.905 ng
15) T	n-Dotriacontane (C32)	20.76	156931278	286.181 ng
16) T	n-Tetratriacontane (C34)	21.58	157483528	281.892 ng
17) T	n-Hexatriacontane (C36)	22.35	159484251	278.958 ng
18) T	n-Octatriacontane (C38)	23.28	155742741	277.099 ng
19) T	n-Tetracontane (C40)	24.50	148704848	273.842 ng
20) H	C9-C12	2.25	488186607	842.711 ng
21) H	C12-C16	5.20	323085540	532.018 ng
22) H	C16-C21	9.65	422520221	757.092 ng
23) H	C21-C40	18.70	1534869375	2610.168 ng

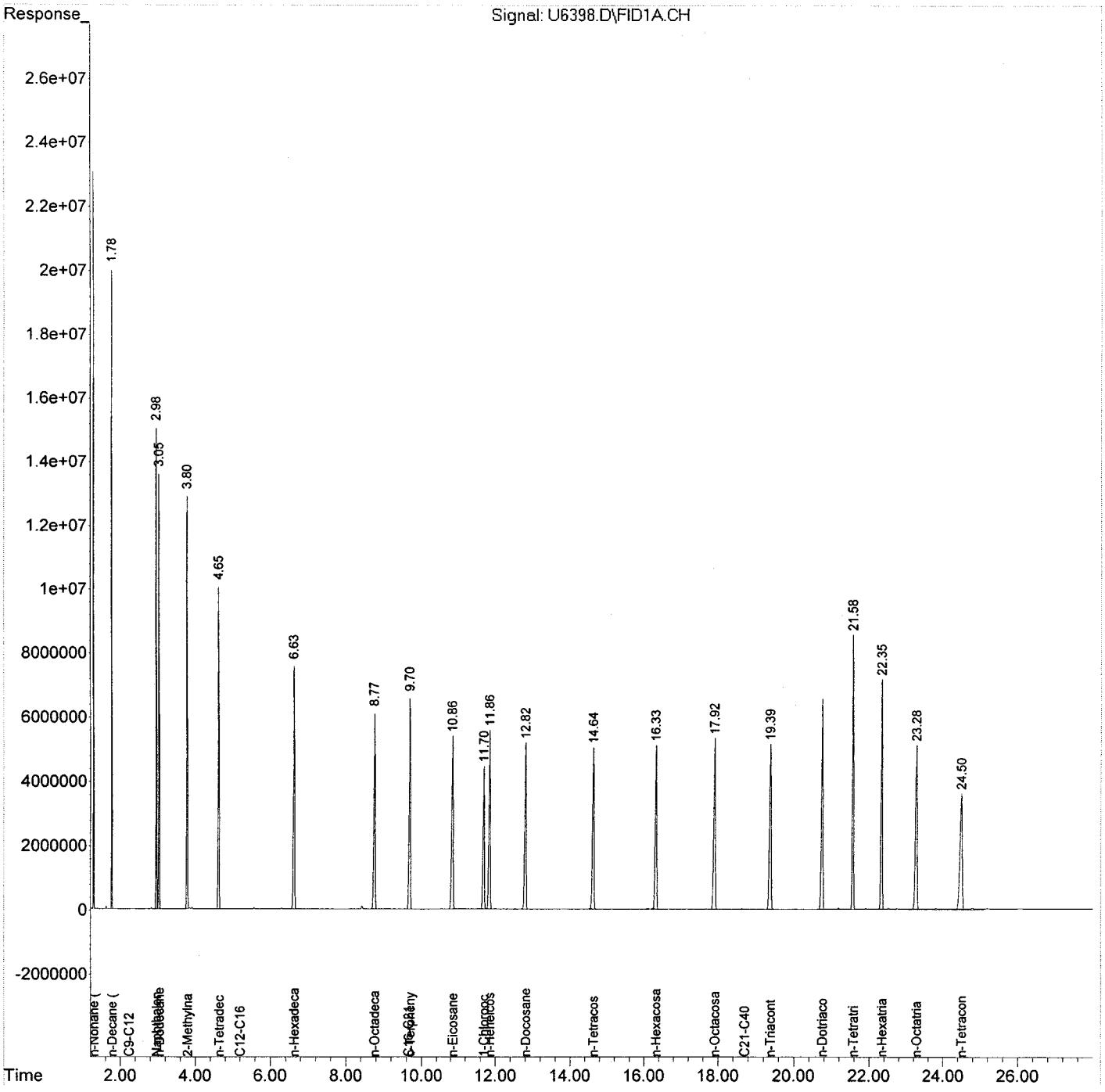
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6398.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:28:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-U

Data File: UB4457.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.89	1.79	2.03	681141	628887	7.67
Napthalene	2.92	2.83	3.07	728006	672030	7.69
2-Methylnaphthalene	3.73	3.64	3.88	756914	680091	10.15
Acenaphthylene	5.07	4.98	5.22	788273	719504	8.72
Acenaphthene	5.40	5.32	5.56	868756	771578	11.19
Fluorene	6.37	6.30	6.54	820394	754143	8.08
Phenanthrene	8.42	8.35	8.59	802759	772568	3.76
Anthracene	8.52	8.47	8.71	847793	740615	12.64
Fluoroanthene	11.27	11.20	11.44	850639	805814	5.27
Pyrene	11.77	11.71	11.95	874219	812442	7.07
Benzo[a]anthracene	14.85	14.79	15.03	829224	798882	3.66
Chrysene	14.95	14.90	15.14	855934	773040	9.68
Benzo[b]fluoranthene	17.53	17.45	17.69	1748775	1640367	6.20
Benzo[k]fluoranthene	17.53	17.45	17.69	1748775	1641318	6.14
Benzo[a]pyrene	18.12	18.08	18.32	876576	812911	7.26
Indeno[1,2,3-cd]pyrene	20.48	20.42	20.66	1614847	1578636	2.24
Dibenz[a,h]anthracene	20.48	20.42	20.66	1614847	1578636	2.24
Benzo[g,h,i]perylene	20.82	20.76	21.00	905872	814481	10.09
C10-C12	2.70	2.58	2.82	1428065	1303819	8.70
C12-C16	4.95	4.83	5.07	2454639	2216699	9.69
C16-C21	9.60	9.48	9.72	4281595	3969619	7.29
C21-C36	17.20	17.08	17.32	7096892	6539095	7.86

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/25/2013 **Instrument ID:** GC-U

Data File: UB4473.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.89	1.79	2.03	681141	661294	2.91
Napthalene	2.92	2.83	3.07	728006	704358	3.25
2-Methylnaphthalene	3.73	3.64	3.88	756914	709956	6.20
Acenaphthylene	5.06	4.98	5.22	788273	750221	4.83
Acenaphthene	5.40	5.32	5.56	868756	793073	8.71
Fluorene	6.37	6.30	6.54	820394	776571	5.34
Phenanthrene	8.41	8.35	8.59	802759	784556	2.27
Anthracene	8.52	8.47	8.71	847793	753970	11.07
Fluoroanthene	11.26	11.20	11.44	850639	826401	2.85
Pyrene	11.77	11.71	11.95	874219	822467	5.92
Benzo[a]anthracene	14.85	14.79	15.03	829224	798365	3.72
Chrysene	14.95	14.90	15.14	855934	780915	8.76
Benzo[b]fluoranthene	17.52	17.45	17.69	1748775	1643394	6.03
Benzo[k]fluoranthene	17.52	17.45	17.69	1748775	1643394	6.03
Benzo[a]pyrene	18.12	18.08	18.32	876576	818126	6.67
Indeno[1,2,3-cd]pyrene	20.47	20.42	20.66	1614847	1519711	5.89
Dibenz[a,h]anthracene	20.47	20.42	20.66	1614847	1519711	5.89
Benzo[g,h,i]perylene	20.82	20.76	21.00	905872	741802	18.11
C10-C12	2.70	2.58	2.82	1428065	1371443	3.96
C12-C16	4.95	4.83	5.07	2454639	2296049	6.46
C16-C21	9.60	9.48	9.72	4281595	4064814	5.06
C21-C36	17.20	17.08	17.32	7096892	6554552	7.64

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4457.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:29:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.30	199507168	228.482	ng	
Spiked Amount	50.000		Recovery	= 456.96%		
2) S	2-Bromonaphthalene	5.30	129106427	238.729	ng	
Spiked Amount	50.000		Recovery	= 477.46%		
3) S	o-Terphenyl	9.56	161874388	223.341	ng	
Spiked Amount	50.000		Recovery	= 446.68%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.89	157221738	230.821	ng	
5) T	Napthalene	2.92	168007475	230.778	ng	
6) T	2-Methylnaphthalene	3.73	170022696	224.626	ng	
7) T	Acenaphthylene	5.07	179875939	228.190	ng	
8) T	Acenaphthene	5.40	192894411	235.567	ng	
9) T	Fluorene	6.37	188535766	229.811	ng	
10) T	Phenanthrene	8.42	193142086	240.598	ng	
11) T	Anthracene	8.52	185153779	218.395	ng	
12) T	Fluoroanthene	11.27	201453554	236.826	ng	
13) T	Pyrene	11.77	203110584	232.334	ng	
14) T	Benzo[a]anthracene	14.85	199720392	240.852	ng	
15) T	Chrysene	14.95	193259915	225.788	ng	
16) T	Benzo[b]fluoranthene	17.53	410091698	234.502	ng	m
17) T	Benzo[k]fluoranthene	17.53	410329493	234.638	ng	m
18) T	Benzo[a]pyrene	18.12	203227761	231.843	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.48	394658989	244.394	ng	
20) T	Dibenz[a,h]anthracene	20.48	394658989	244.394	ng	
21) T	Benzo[g,h,i]perylene	20.82	203620156	224.778	ng	
22) H	C10-C12	2.70	325954843	456.499	ng	
23) H	C12-C16	4.95	554174703	677.299	ng	
24) H	C16-C21	9.60	992404682	1158.919	ng	
25) H	C21-C36	17.20	1634773822	1842.805	ng	

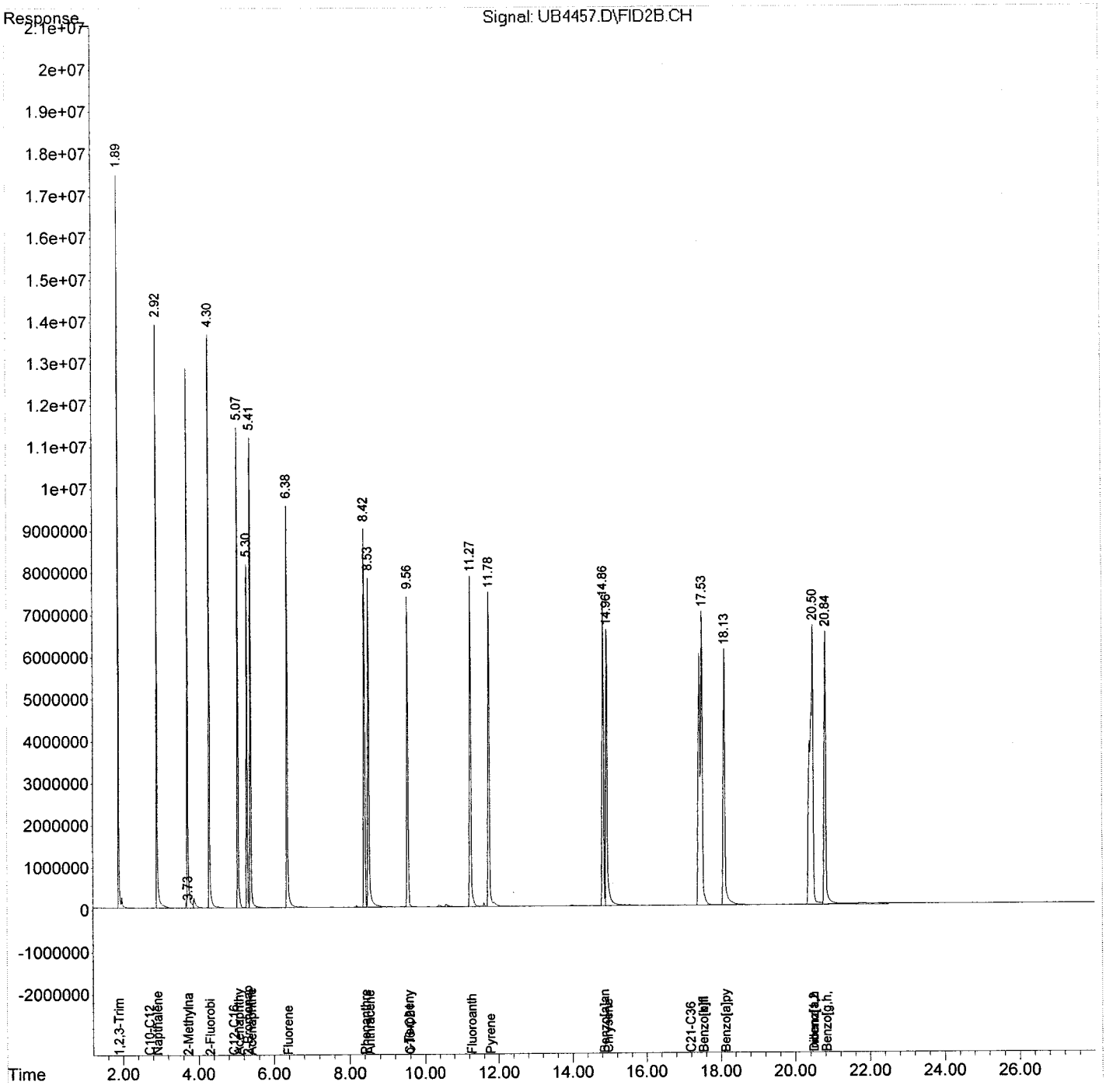
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4457.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ARO_C_IAS_4663.250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:29:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4473.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:36:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.30	206970605	237.029 ng
Spiked Amount	50.000		Recovery	= 474.06%
2) S	2-Bromonaphthalene	5.30	134589914	248.868 ng
Spiked Amount	50.000		Recovery	= 497.74%
3) S	o-Terphenyl	9.56	164254274	226.624 ng
Spiked Amount	50.000		Recovery	= 453.25%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.89	165323617	242.716 ng
5) T	Napthalene	2.92	176089523	241.879 ng
6) T	2-Methylnaphthalene	3.73	177488891	234.490 ng
7) T	Acenaphthylene	5.06	187555285	237.932 ng
8) T	Acenaphthene	5.40	198268307	242.129 ng
9) T	Fluorene	6.37	194142763	236.646 ng
10) T	Phenanthrene	8.41	196138997	244.331 ng
11) T	Anthracene	8.52	188492596	222.333 ng
12) T	Fluoroanthene	11.26	206600340	242.877 ng
13) T	Pyrene	11.77	205616851	235.201 ng
14) T	Benzo[a]anthracene	14.85	199591297	240.697 ng
15) T	Chrysene	14.95	195228782	228.088 ng
16) T	Benzo[b]fluoranthene	17.52	410848525	234.935 ng
17) T	Benzo[k]fluoranthene	17.52	410848525	234.935 ng
18) T	Benzo[a]pyrene	18.12	204531510	233.330 ng
19) T	Indeno[1,2,3-cd]pyrene	20.47	379927788	235.272 ng
20) T	Dibenz[a,h]anthracene	20.47	379927788	235.272 ng
21) T	Benzo[g,h,i]perylene	20.82	185450384	204.720 ng
22) H	C10-C12	2.70	342860776	480.175 ng
23) H	C12-C16	4.95	574012226	701.544 ng
24) H	C16-C21	9.60	1016203600	1186.712 ng
25) H	C21-C36	17.20	1638638092	1847.161 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

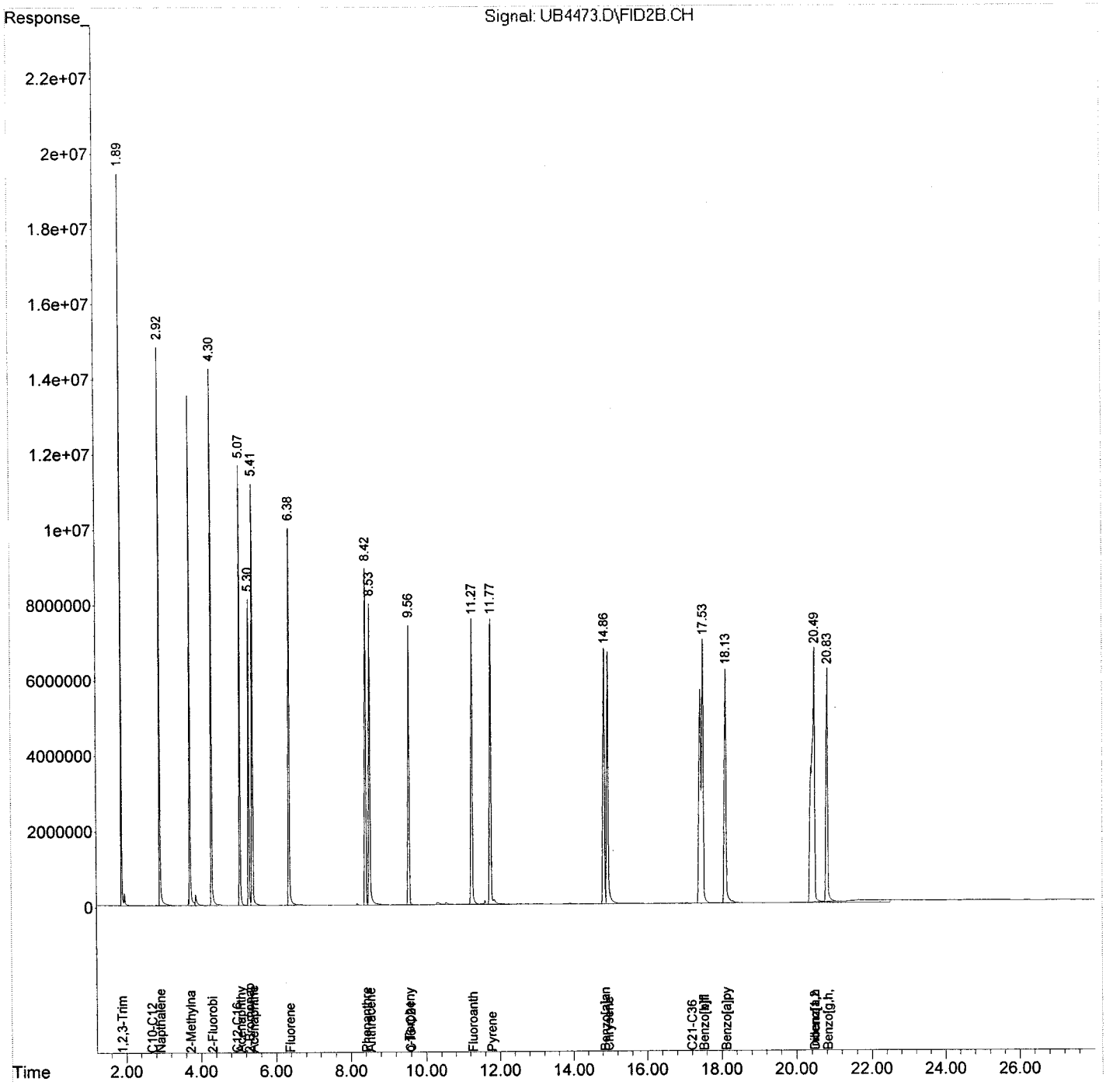
E13-09135 0376

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4473.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:36:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6384.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ALI,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	11.67	15445792	36.906 ng
Spiked Amount	50.000		Recovery =	73.81%
	Target Compounds			
2)	T n-Nonane (C9)	1.29	14020209	25.626 ng
3)	T n-Decane (C10)	1.78	20405230	36.185 ng
4)	T n-Dodecane (C12)	3.04	24020905	41.315 ng
5)	T n-Tetradecane (C14)	4.63	26300822	44.741 ng
6)	T n-Hexadecane (C16)	6.61	26932608	46.681 ng
7)	T n-Octadecane (C18)	8.75	26241676	47.363 ng
8)	T n-Eicosane (C20)	10.83	24870846	46.146 ng
9)	T n-Heneicosane (C21)	11.83	22910163	42.856 ng
10)	T n-Docosane (C22)	12.79	25381170	48.118 ng
11)	T n-Tetracosane (C24)	14.61	22454366	43.345 ng
12)	T n-Hexacosane (C26)	16.31	22998457	45.050 ng
13)	T n-Octacosane (C28)	17.88	23846695	46.359 ng
14)	T n-Triacontane (C30)	19.36	24904258	47.372 ng
15)	T n-Dotriacontane (C32)	20.73	24984223	45.561 ng
16)	T n-Tetratriacontane (C34)	21.55	26430099	47.309 ng
17)	T n-Hexatriacontane (C36)	22.31	25231335	44.133 ng
18)	T n-Octatriacontane (C38)	23.24	24272664	43.186 ng
19)	T n-Tetracontane (C40)	24.44	24103924	44.388 ng
20)	H C9-C12	2.25	36319229	62.695 ng
21)	H C12-C16	5.20	55593351	91.544 ng
22)	H C16-C21	9.65	77291756	138.495 ng
23)	H C21-C40	18.70	284874060	484.451 ng

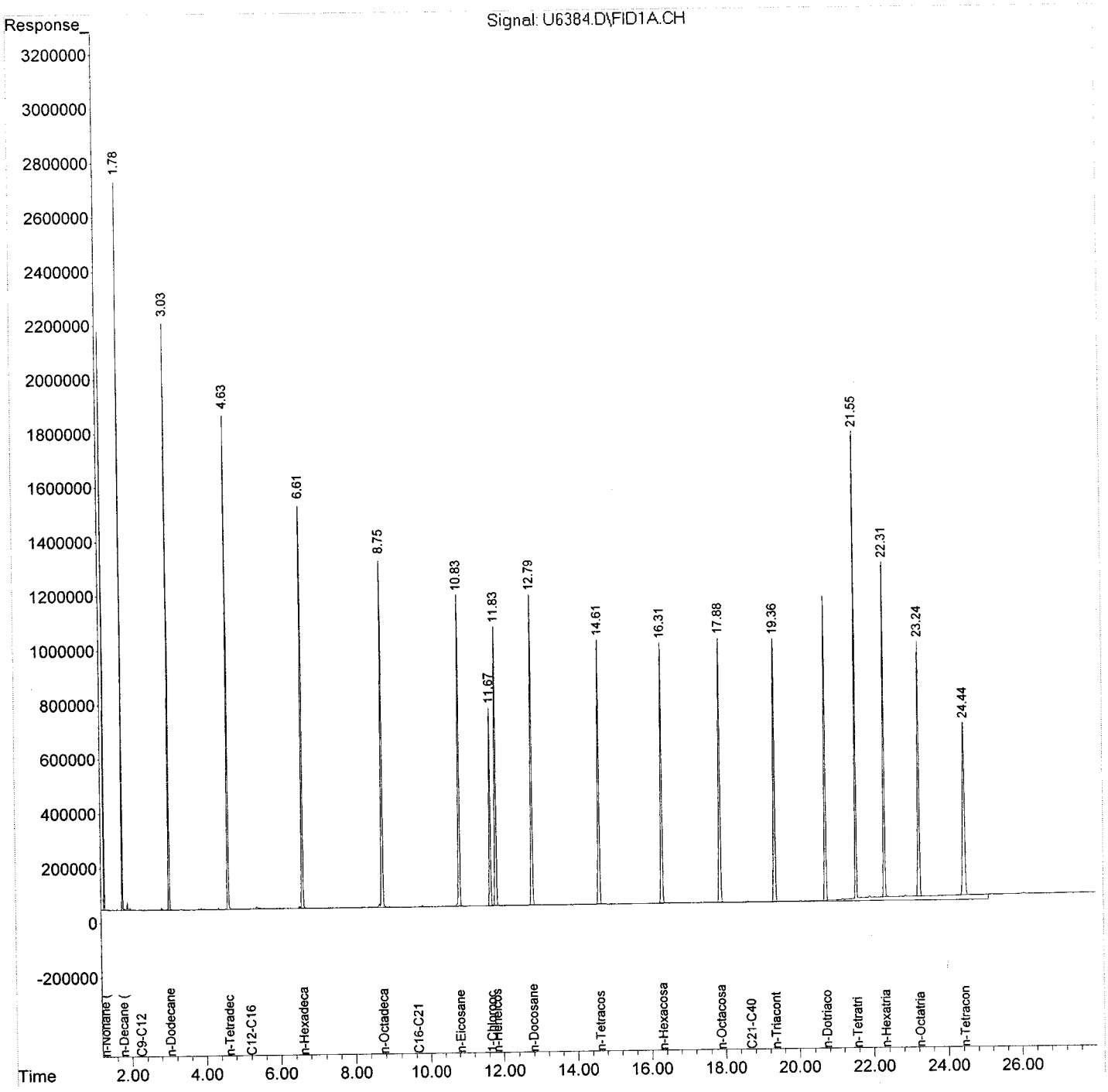
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6384.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ALI,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6385.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ALI,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.67	16390333	39.163 ng
Spiked Amount	50.000		Recovery =	78.33%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	14533513	26.564 ng
3) T	n-Decane (C10)	1.78	21218096	37.626 ng
4) T	n-Dodecane (C12)	3.04	25193890	43.332 ng
5) T	n-Tetradecane (C14)	4.63	27869367	47.409 ng
6) T	n-Hexadecane (C16)	6.61	28789942	49.900 ng
7) T	n-Octadecane (C18)	8.75	28172476	50.848 ng
8) T	n-Eicosane (C20)	10.83	26560188	49.280 ng
9) T	n-Heneicosane (C21)	11.83	24323842	45.501 ng
10) T	n-Docosane (C22)	12.79	26745449	50.705 ng
11) T	n-Tetracosane (C24)	14.61	23253738	44.888 ng
12) T	n-Hexacosane (C26)	16.30	23467706	45.969 ng
13) T	n-Octacosane (C28)	17.88	24207080	47.060 ng
14) T	n-Triacontane (C30)	19.36	25311383	48.147 ng
15) T	n-Dotriacontane (C32)	20.73	25385104	46.292 ng
16) T	n-Tetratriacontane (C34)	21.54	26801571	47.974 ng
17) T	n-Hexatriacontane (C36)	22.30	25584943	44.751 ng
18) T	n-Octatriacontane (C38)	23.23	24565492	43.707 ng
19) T	n-Tetracontane (C40)	24.43	24398870	44.931 ng
20) H	C9-C12	2.25	37838586	65.317 ng
21) H	C12-C16	5.20	59309571	97.664 ng
22) H	C16-C21	9.65	82711690	148.207 ng
23) H	C21-C40	18.70	290620472	494.223 ng

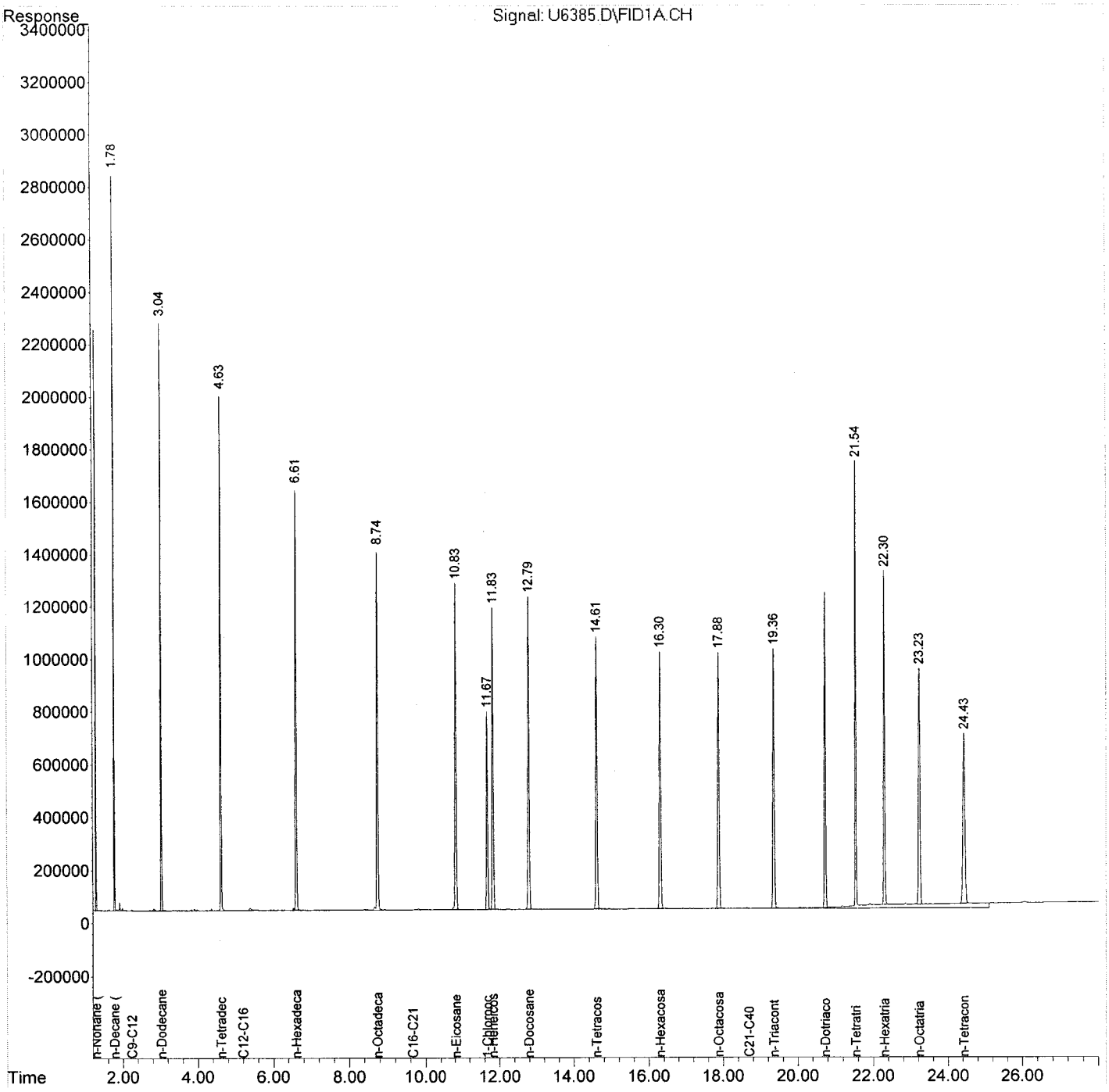
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6385.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ALI,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4459.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ARO,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.30	32033451	36.686	ng	
Spiked Amount	50.000		Recovery =	73.37%		
2) S	2-Bromonaphthalene	5.30	14015009	25.915	ng	
Spiked Amount	50.000		Recovery =	51.83%		
3) S	o-Terphenyl	9.54	24316288	33.550	ng	
Spiked Amount	50.000		Recovery =	67.10%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.89	19611000	28.791	ng	
5) T	Napthalene	2.93	26808921	36.825	ng	
6) T	2-Methylnaphthalene	3.74	29165160	38.532	ng	
7) T	Acenaphthylene	5.06	30592216	38.809	ng	
8) T	Acenaphthene	5.38	40419933	49.362	ng	
9) T	Fluorene	6.37	31798016	38.759	ng	
10) T	Phenanthrene	8.40	33453869	41.674	ng	
11) T	Anthracene	8.51	37080826	43.738	ng	
12) T	Fluoroanthene	11.25	36785835	43.245	ng	
13) T	Pyrene	11.74	38581490	44.133	ng	
14) T	Benzo[a]anthracene	14.82	33759473	40.712	ng	m
15) T	Chrysene	14.93	42361858	49.492	ng	
16) T	Benzo[b]fluoranthene	17.41	77871571	44.529	ng	
17) T	Benzo[k]fluoranthene	17.41	77871571	44.529	ng	
18) T	Benzo[a]pyrene	18.11	34756253	39.650	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.37	71313510	44.161	ng	
20) T	Dibenz[a,h]anthracene	20.37	71313510	44.161	ng	
21) T	Benzo[g,h,i]perylene	20.78	39232149	43.309	ng	
22) H	C10-C12	2.70	48487950	67.907	ng	
23) H	C12-C16	4.95	101887265	124.524	ng	
24) H	C16-C21	9.60	190333074	222.269	ng	
25) H	C21-C36	17.20	324212937	365.470	ng	

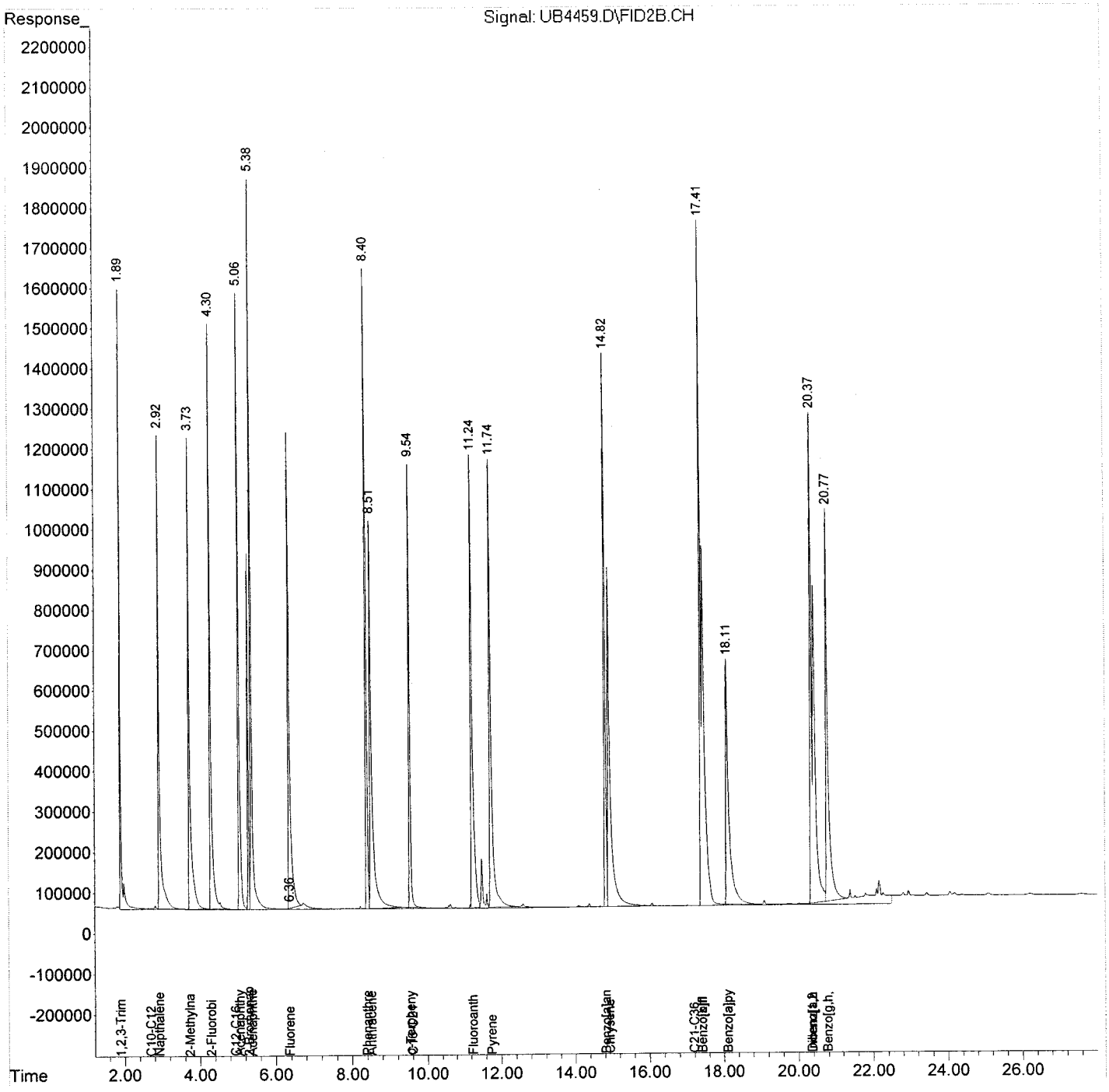
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4459.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ARO,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4460.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ARO,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
	System Monitoring Compounds				
1) S	2-Fluorobiphenyl	4.30	30485811	34.913 ng	
Spiked Amount	50.000		Recovery =	69.83%	
2) S	2-Bromonaphthalene	5.30	13158076	24.330 ng	
Spiked Amount	50.000		Recovery =	48.66%	
3) S	o-Terphenyl	9.54	23349885	32.216 ng	
Spiked Amount	50.000		Recovery =	64.43%	
	Target Compounds				
4) T	1,2,3-Trimethylbenzene	1.89	18337662	26.922 ng	
5) T	Napthalene	2.93	25316790	34.776 ng	
6) T	2-Methylnaphthalene	3.74	27742723	36.652 ng	
7) T	Acenaphthylene	5.06	29289224	37.156 ng	
8) T	Acenaphthene	5.39	39037968	47.674 ng	
9) T	Fluorene	6.37	30504785	37.183 ng	
10) T	Phenanthrene	8.40	32129880	40.024 ng	
11) T	Anthracene	8.52	34465462	40.653 ng	
12) T	Fluoroanthene	11.25	35055011	41.210 ng	
13) T	Pyrene	11.75	36770507	42.061 ng	
14) T	Benzo[a]anthracene	14.83	32046006	38.646 ng	m
15) T	Chrysene	14.93	40011266	46.746 ng	
16) T	Benzo[b]fluoranthene	17.41	73469206	42.012 ng	
17) T	Benzo[k]fluoranthene	17.41	73469206	42.012 ng	
18) T	Benzo[a]pyrene	18.11	32754484	37.366 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.36	68201136	42.234 ng	m
20) T	Dibenz[a,h]anthracene	20.36	68007375	42.114 ng	m
21) T	Benzo[g,h,i]perylene	20.78	37983927	41.931 ng	
22) H	C10-C12	2.70	45428510	63.622 ng	
23) H	C12-C16	4.95	97968071	119.734 ng	
24) H	C16-C21	9.60	182312108	212.902 ng	
25) H	C21-C36	17.20	307177854	346.267 ng	

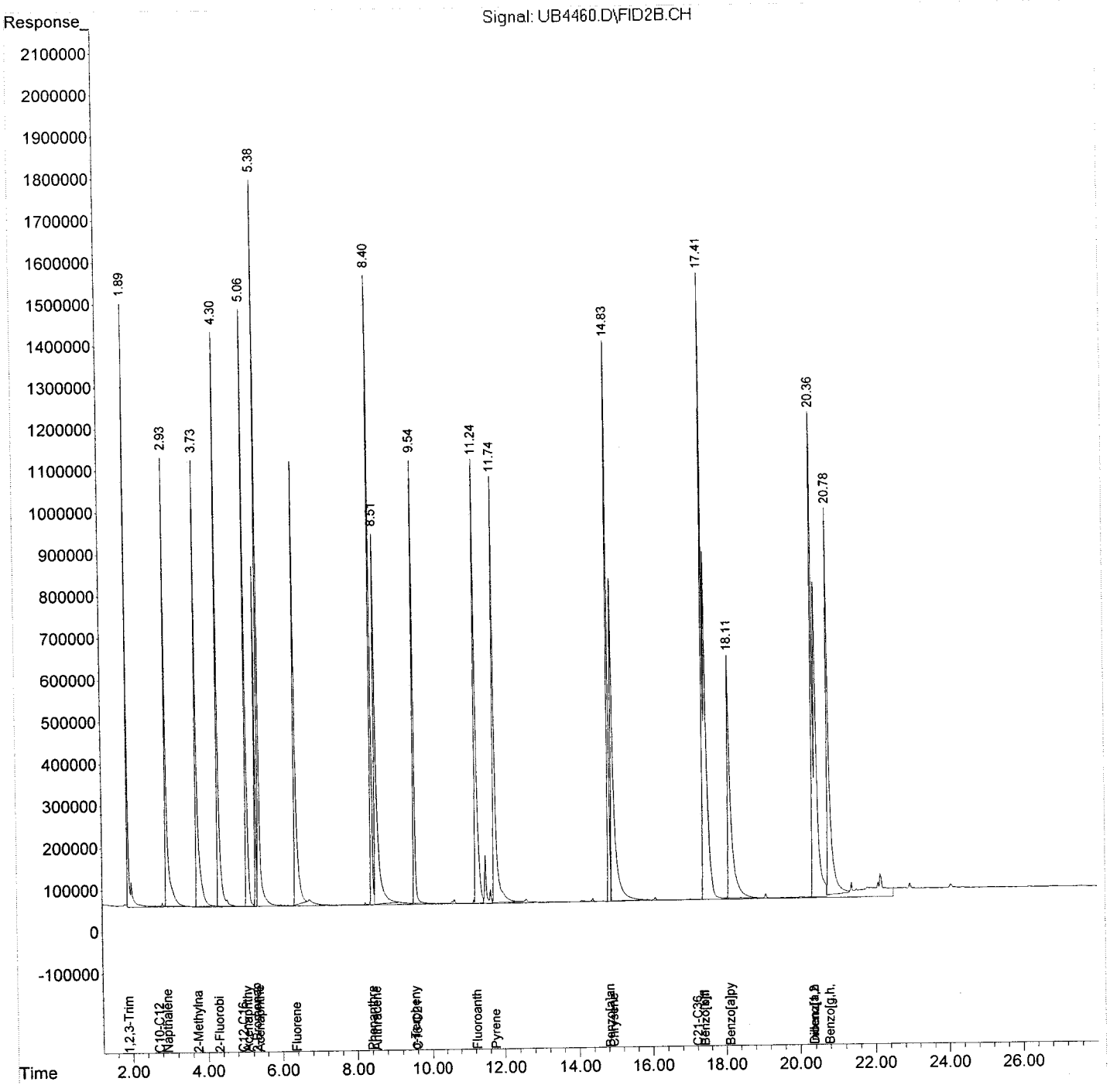
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4460.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ARO,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6397.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ALI,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:54:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.69	13667979	32.658 ng m
Spiked Amount 50.000		Recovery =	65.32%
Target Compounds			
20) H C9-C12	2.25	86903936	150.014 ng
21) H C12-C16	5.20	5424904584	8933.073 ng
22) H C16-C21	9.65	17084839265	30613.444 ng
23) H C21-C40	18.70	6966882114	11847.740 ng

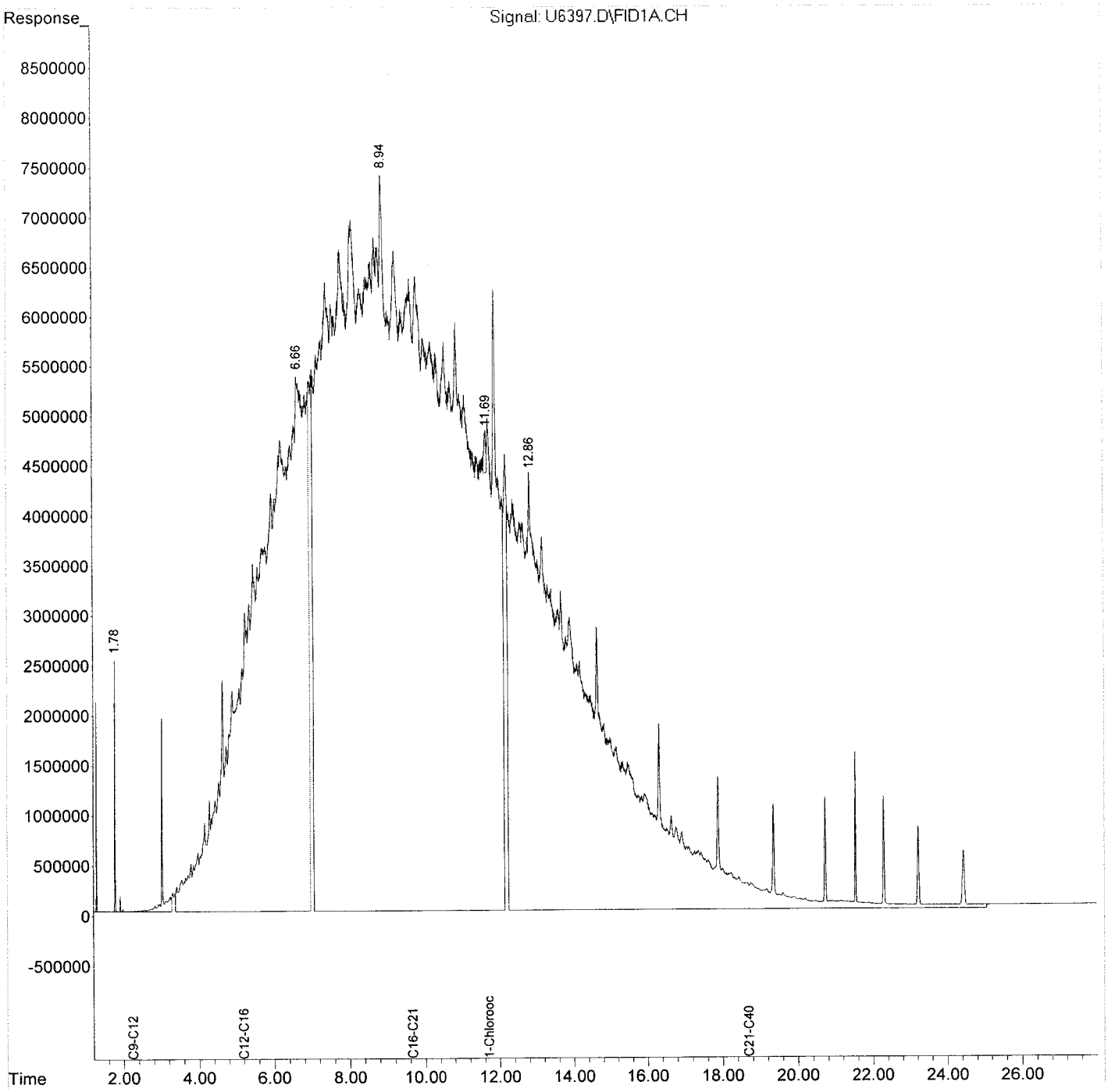
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6397.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ALI,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:54:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4472.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ARO,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:50:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.29	32984773	37.775	ng	
Spiked Amount 50.000		Recovery = 75.55%			
2) S 2-Bromonaphthalene	5.29	22467273	41.544	ng	m
Spiked Amount 50.000		Recovery = 83.09%			
3) S o-Terphenyl	9.56	26256898	36.227	ng	m
Spiked Amount 50.000		Recovery = 72.45%			
Target Compounds					
22) H C10-C12	2.70	49612767	69.483	ng	
23) H C12-C16	4.95	352519639	430.841	ng	
24) H C16-C21	9.60	4566519873	5332.732	ng	
25) H C21-C36	17.20	1215477719	1370.152	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

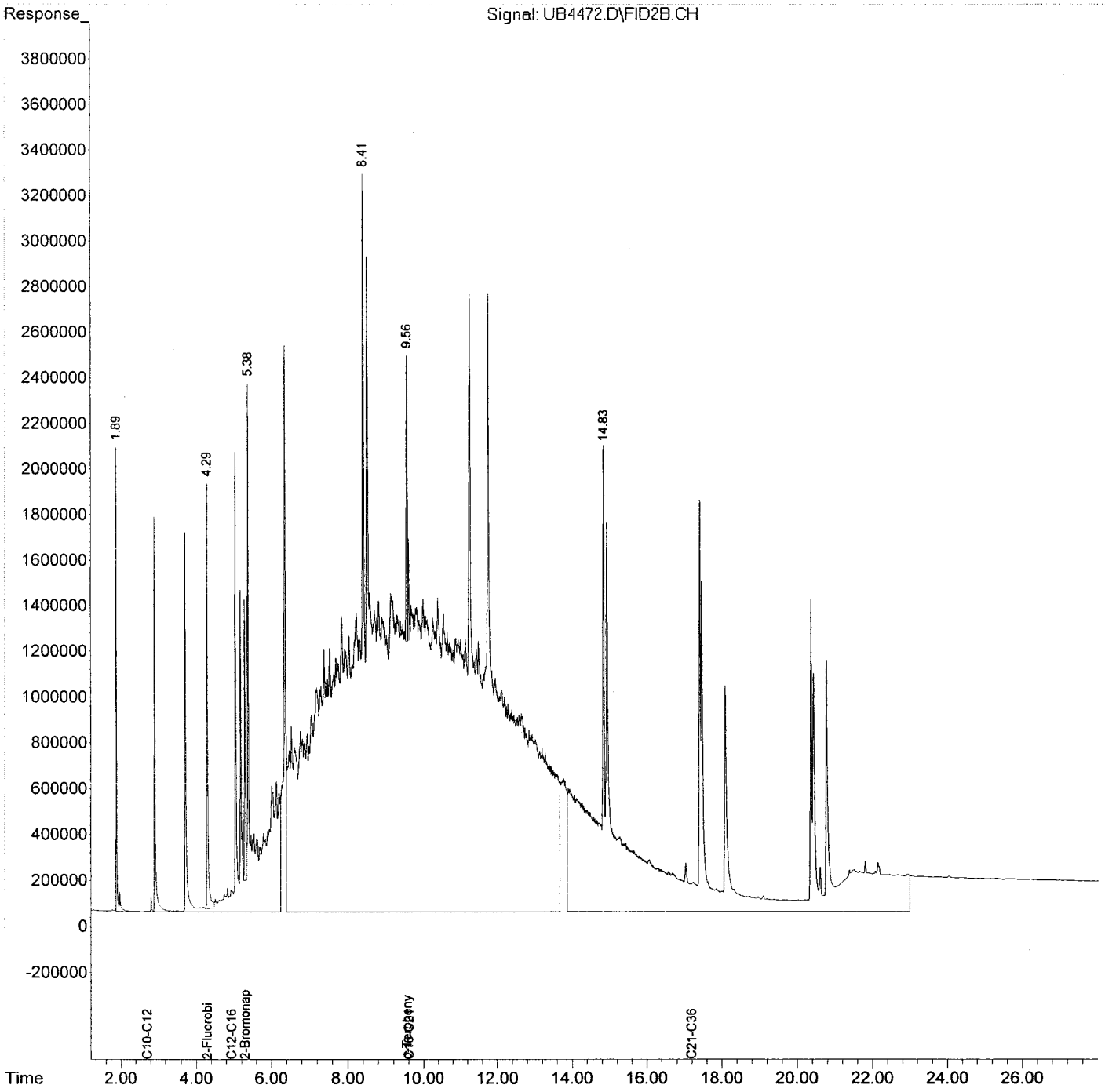
E13-09135 0389

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4472.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ARO,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:50:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6386.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:58:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.69	4854811	11.600 ng
Spiked Amount	50.000		Recovery =	23.20%
	Target Compounds			
21) H	C12-C16	5.20	1081943857	1781.614 ng
22) H	C16-C21	9.65	3098241992	5551.580 ng
23) H	C21-C40	18.70	1130089022	1921.807 ng

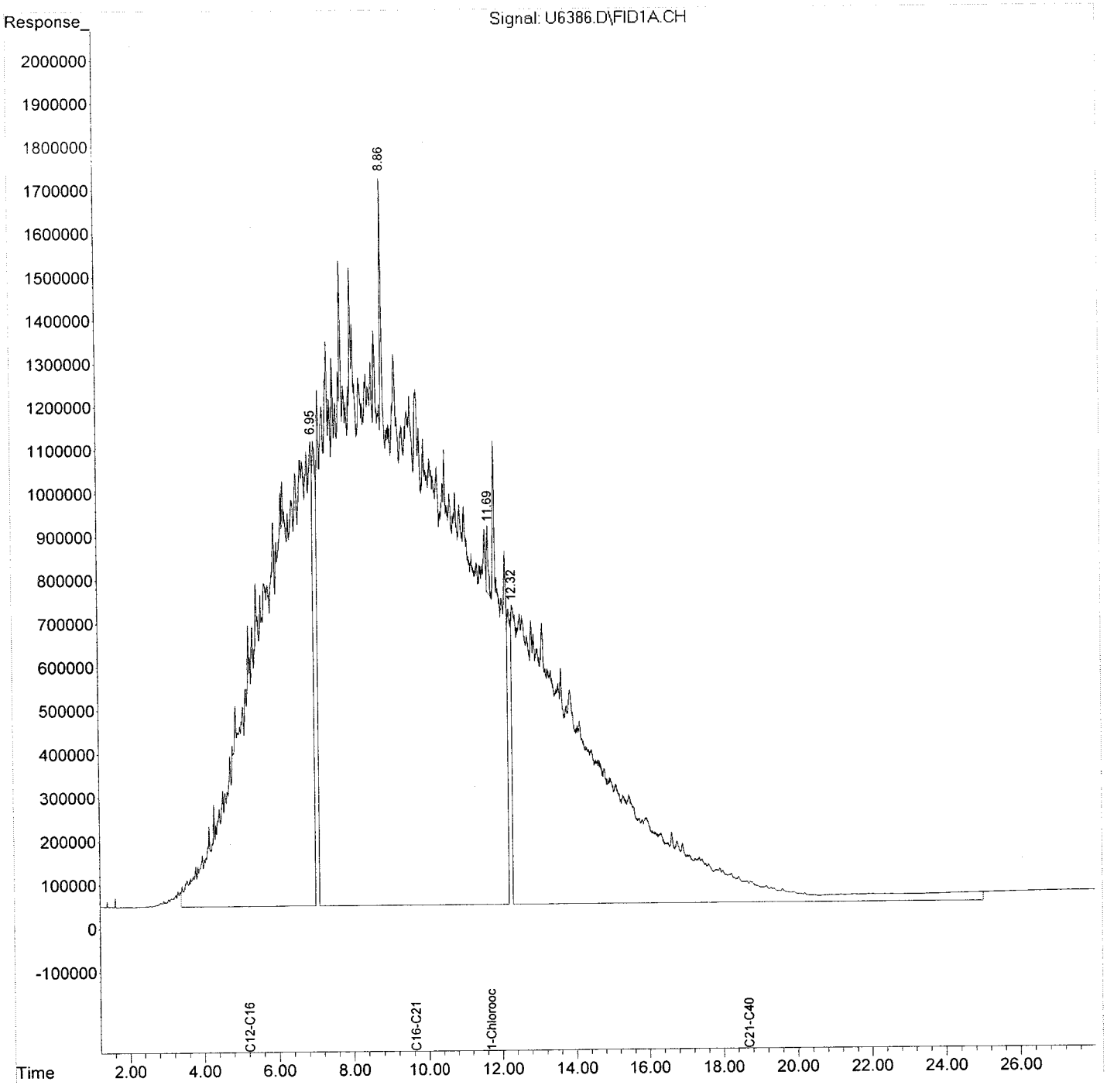
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6386.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:58:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4461.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:34:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.30	30757175	35.224	ng	m
Spiked Amount 50.000		Recovery = 70.45%			
2) S 2-Bromonaphthalene	5.31	23879668	44.156	ng	m
Spiked Amount 50.000		Recovery = 88.31%			
3) S o-Terphenyl	9.56	34064633	47.000	ng	m
Spiked Amount 50.000		Recovery = 94.00%			
Target Compounds					
23) H C12-C16	4.95	302024174	369.127	ng	
24) H C16-C21	9.60	4501917422	5257.290	ng	
25) H C21-C36	17.20	1202411541	1355.423	ng	

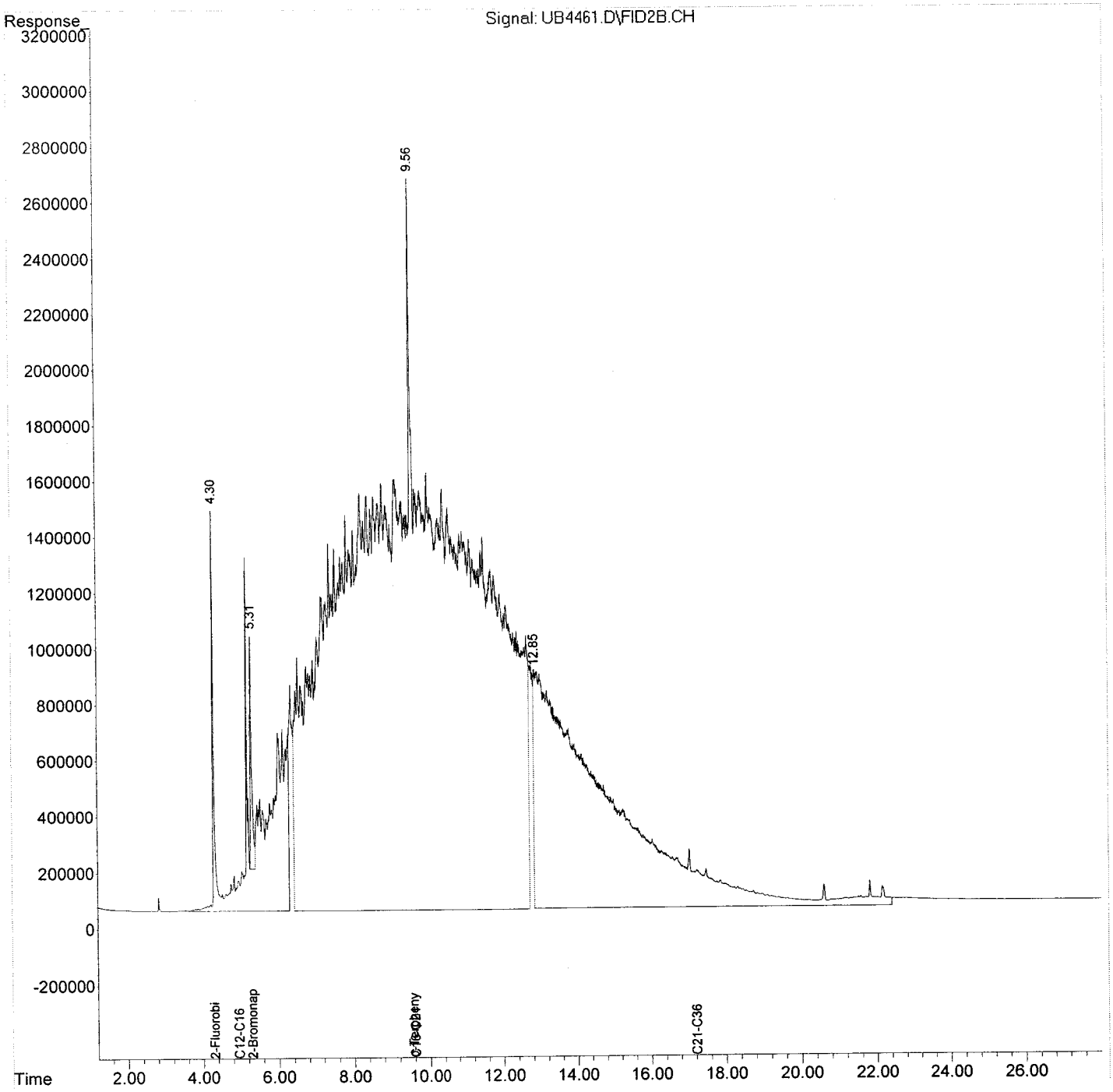
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4461.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:34:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6396.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 16 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:07:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.69	4705226	11.243 ng
Spiked Amount	50.000		Recovery =	22.49%
	Target Compounds			
21) H	C12-C16	5.20	1018321425	1676.848 ng
22) H	C16-C21	9.65	2827162435	5065.847 ng
23) H	C21-C40	18.70	1087443074	1849.284 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

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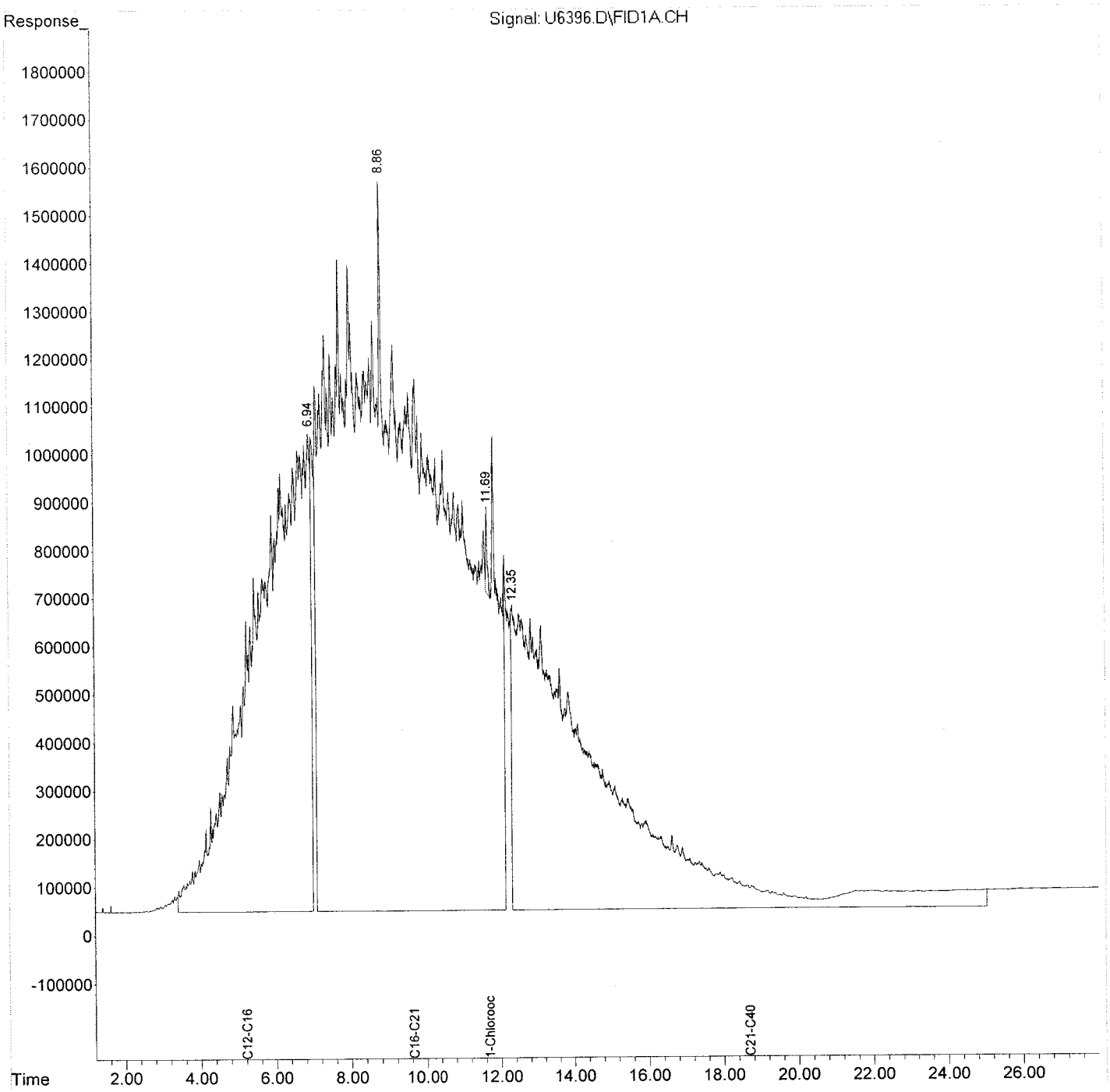
E13-09135 0395

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6396.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 16 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:07:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4471.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 66 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:41:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.29	35157986	40.264	ng	
Spiked Amount 50.000		Recovery = 80.53%			
2) S 2-Bromonaphthalene	5.30	23972439	44.327	ng	m
Spiked Amount 50.000		Recovery = 88.65%			
3) S o-Terphenyl	9.55	27548481	38.009	ng	m
Spiked Amount 50.000		Recovery = 76.02%			
Target Compounds					
23) H C12-C16	4.95	259158411	316.737	ng	
24) H C16-C21	9.60	4151284126	4847.824	ng	
25) H C21-C36	17.20	1035911589	1167.735	ng	

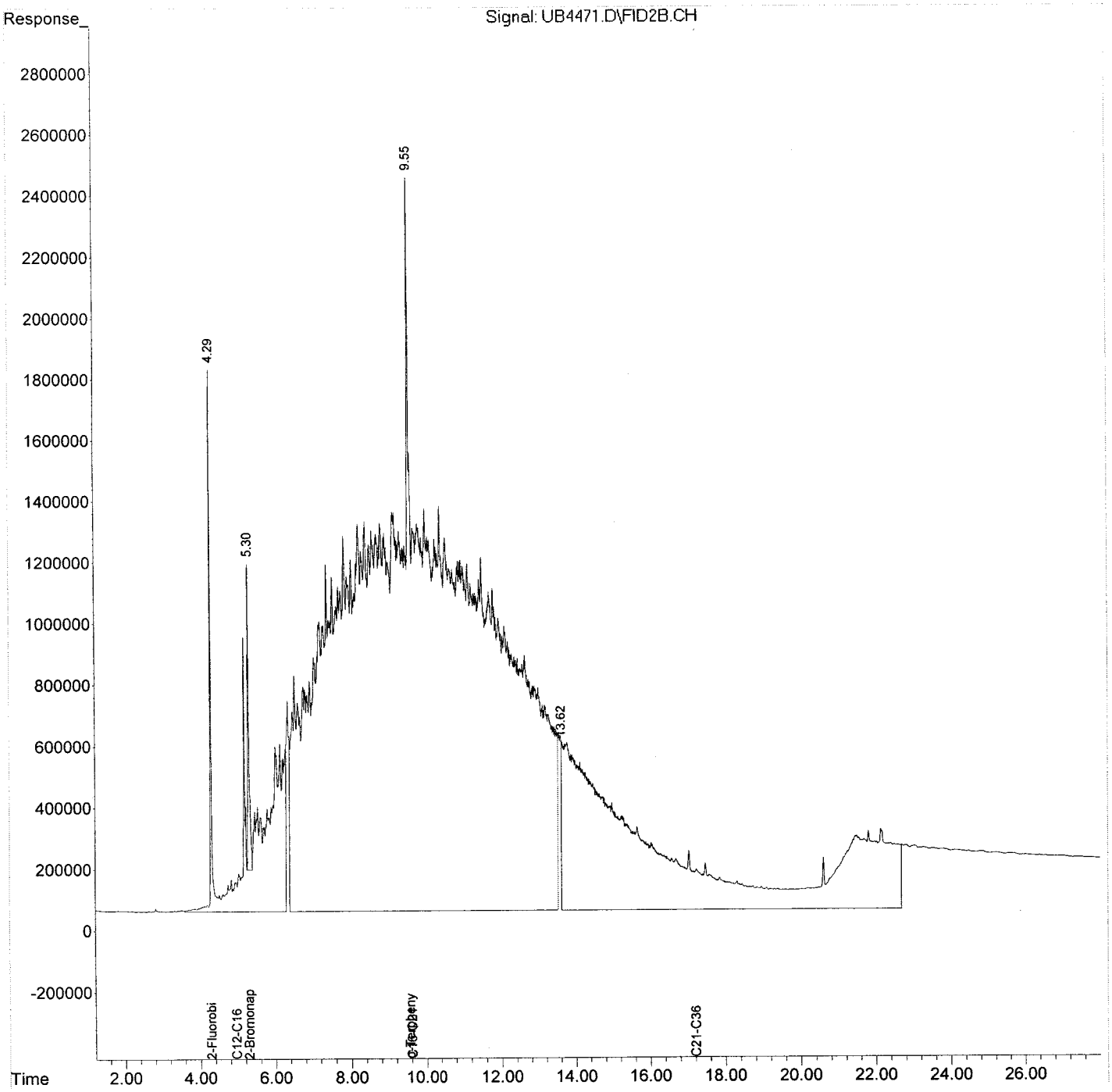
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4471.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 66 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:41:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS130923-15
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6383.D
Dilution Factor: 1

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA
Aro Date Analyzed: 09/24/2013
Data file: UB4458.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	6.00
C12-C16 Aliphatics	ND		8.00	6.00
C16-C21 Aliphatics	ND		12.0	4.00
C21-C40 Aliphatics	ND		40.0	4.00
Total Aliphatics	ND		40.0	6.00
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	4.00
Total Aromatics	ND		32.0	4.00
Total NJ-EPH	ND		40.0	6.00

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6383.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ALI,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.67	14250129	34.049 ng
Spiked Amount 50.000		Recovery =	68.10%
Target Compounds			

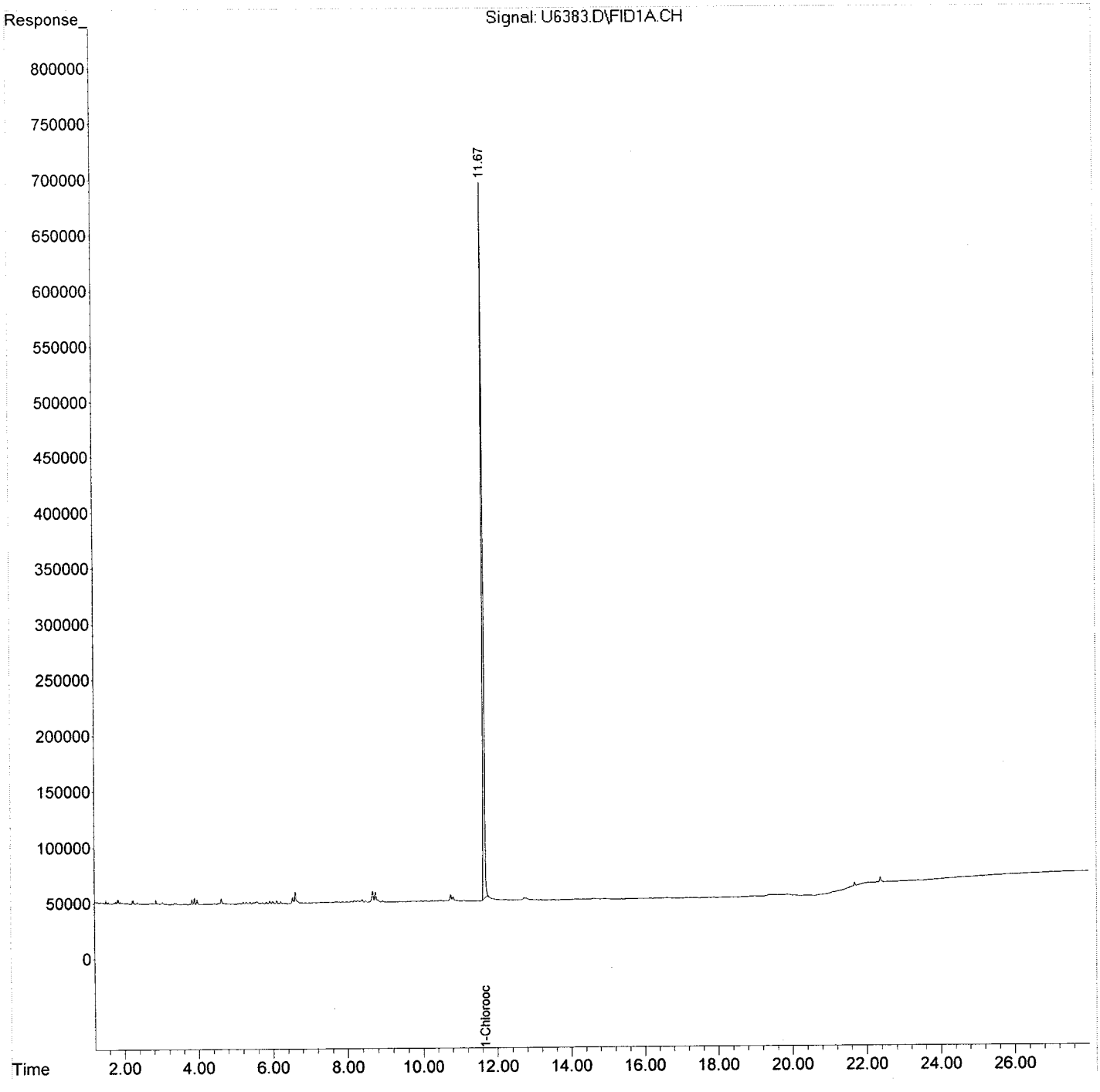
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6383.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ALI,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4458.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ARO,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.30	34871990	39.936 ng
Spiked Amount 50.000		Recovery =	79.87%
2) S 2-Bromonaphthalene	5.32	21864541	40.429 ng
Spiked Amount 50.000		Recovery =	80.86%
3) S o-Terphenyl	9.54	26406793	36.434 ng
Spiked Amount 50.000		Recovery =	72.87%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

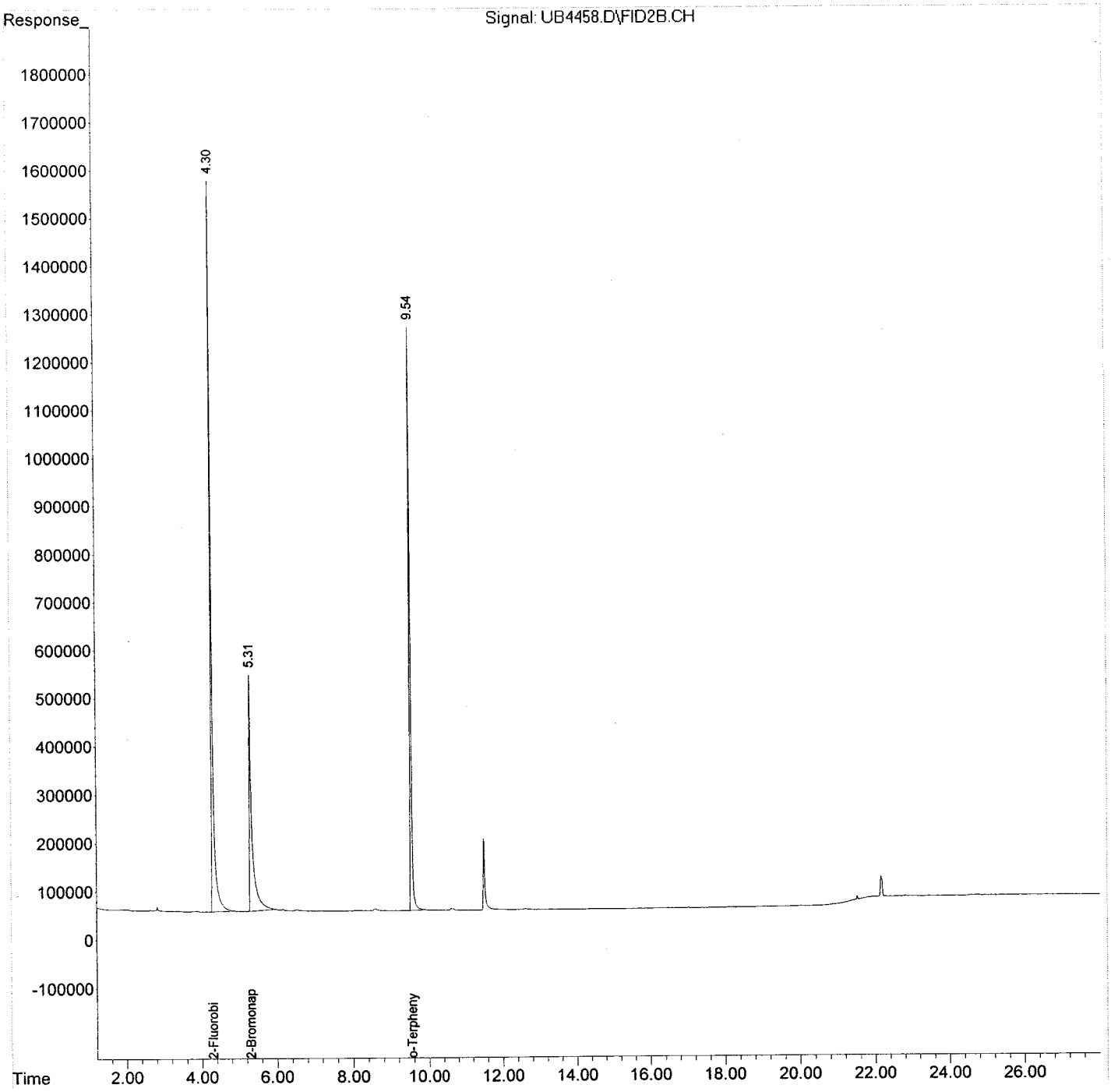
E13-09135 0402

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4458.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ARO,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



SAMPLE TRACKING

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER	
Company:	EWMA
Address:	
Telephone #:	
Fax #:	
Project Manager:	
Sampler:	
Project Name:	50 Division Ave
Project Location (State):	NJ
Bottle Order #:	
Quote # :	208322

REPORTING INFO	
REPORT TO:	
Address:	
Attn:	
FAX #	
INVOICE TO:	
Address:	
Attn:	
PO #	L11690

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

SEE BELOW (under comments section for explanation)

Verbal/Fax 24 hr* 48 hr* 72 hr* 1 wk*

Hard Copy Other *call for price

2 wk/Std

3 wk/Std

Results needed by:

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

DISKETTE
SRP. dbf format
SRP.wk1 format
lab approved custom EDD
NO DISK/CD REQ'D

Cooler Temp 4 °C

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS

BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOC	BN	EPH	Pesticides/ Herbicides							HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
AOC-2-1	14-14.5	9-16-13	1112	S	1	1			X														1	
AOC-2-2	14-14.5		~~1120~~ R15		1	2			X														1	
AOC-2-3	11.5-12		1342		4	3	X	X	X														1	3
AOC-2-4	10-10.5		1132		4	4	X	X	X														1	3
AOC-4	7.5-8		1459		4	5	X	X	X	X													1	3

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

MDL Req: Old GWQS - 11/05 GWQS - SCC - OTHER (SEE COMMENTS)

Signature/Company	Date	Time	Signature/Company
Relinquished by:	9-16-13	1630	Received by: IAL 9/17/13 16:00
Relinquished by: IAL	9/17/13	1625	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2
QAM-025 (OQA-QAM025) - used for: all other fuel oils and unknown contamination

Lab Case # 09135

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

01/2007 rev

Ref No: G 393600198

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

E13-09135: 50 DIVISION AVE - 208322

To: Anthony Kaufman
EWMA - HQ
Fax: 1(973) 560-0400
EMail: anthony.kaufman@ewma.com

Report To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Anthony Kaufman

Bill To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Anthony Kaufman

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced	L11690	Sep 17, 2013 @ 16:25	Sep 26, 2013	Oct 02, 2013	Oct 08, 2013 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

**** QC Requirement (must meet):** NJ IGW

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
09135-001	AOC-2-1	14/14.5	09/16/13@11:12	Soil	mg/Kg (ppm)	
09135-002	AOC-2-2	14/14.5	09/16/13@12:15	Soil	mg/Kg (ppm)	
09135-003	AOC-2-3	11.5/12	09/16/13@13:42	Soil	mg/Kg (ppm)	
09135-004	AOC-2-4	10/10.5	09/16/13@11:32	Soil	mg/Kg (ppm)	
09135-005	AOC-4	7.5/8	09/16/13@14:59	Soil	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	9/30/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	9/30/2013
002	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	9/30/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	9/30/2013
003	TCL VO + 15	Analyze	8260B	STD/2 WKS	9/30/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	9/30/2013
	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	9/30/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	9/30/2013
004	TCL VO + 15	Analyze	8260B	STD/2 WKS	9/30/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	9/30/2013
	NJ-EPH-C40	Cancel	Method 10.08 Rev 3	RUSH 1 WK	9/30/2013
	NJ-EPH-Fractionated	Analyze	Method 10.08 Rev 3	RUSH 1 WK	9/30/2013

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Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP New Jersey Accredited Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Pennsylvania (68-00773) and West Virginia TO-15 and Method 18.

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

E13-09135: 50 DIVISION AVE - 208322

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
005	TCL VO + 15	Analyze	8260B	STD/2 WKS	9/30/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	9/30/2013
	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	9/30/2013
	Herbicides	Analyze	8151A	STD/2 WKS	9/30/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	9/30/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	9/30/2013

Project Notes:

NOTE 1 taken by Ellen on 09/18/2013 08:22
3 ENCORS RECEIVED - 1 INTO MEOH/2 INTO H2O

NOTE 2 taken by Ellen on 09/18/2013 08:23
WAITING FOR CALL BACK FROM CLIENT W/ TYPE OF EPH REQUIRED.

NOTE 3 taken by Ellen on 09/18/2013 08:24
PROJECT MANAGERS NAME NOT LISTED ON COC. WAITING FOR CALL BACK FROM SAMPLER W/ CORRECT PMs NAME.

REV 1 taken by Ellen on 09/19/2013 09:46
AS PER ANTHONY K., RUN EPH AS EPH-C40. DUE 9/26

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 13** **09135** CLIENT: EWHA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

KEY
✓ = YES/NA
✗ = NO

VOA received: [✓] Encore [ ] IGW - Methanol
(check one) [ ] Terra Core [ ] No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
[ ]	Multiphasic Sample	
[ ]	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 9/17/13

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL MS DATE 9/18

Laboratory Custody Chronicle

IAL Case No.

E13-09135

Client EWMA - HQ

Project 50 DIVISION AVE - 208322

Received On 9/17/2013@16:25

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	09135-003	Soil	n/a	n/a	9/18/13	Mei
"	-004	"	n/a	n/a	9/18/13	Mei
"	-005	"	n/a	n/a	9/19/13	Xing

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BN + 15	-003	Soil	9/18/13	Kou-Liang	9/18/13	Eleanor
"	-004	"	9/18/13	Kou-Liang	9/18/13	Eleanor
"	-005	"	9/18/13	Kou-Liang	9/18/13	Eleanor

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Herbicides	-005	Soil	9/24/13	Archimede	9/26/13	Justyna
NJ-EPH-C40	-001	Soil	9/19/13	Archimede	9/24/13	William
"	-002	"	9/19/13	Archimede	9/24/13	William
"	-003	"	9/19/13	Archimede	9/24/13	William
"	-005	"	9/19/13	Archimede	9/24/13	William
NJ-EPH-Fractionated	-004	Soil	9/23/13	Archimede	9/24/13	Latha
TCL Pesticides	-005	Soil	9/20/13	Archimede	9/23/13	Iwona

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: **50 DIVISION AVE - 208322**
IAL Case Number: **E13-09196**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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Randolph, NJ 07869
Phone: 973 361 4252
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Sample Summary

IAL Case No.

E13-09196

Client EWMA - HQ

Project 50 DIVISION AVE - 208322

Received On 9/18/2013@16:25

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09196-001	C-1 WAREHOUSE 1	n/a	9/17/2013@08:30	Solid	1
09196-002	C-2 LOAD DOCK 1	n/a	9/17/2013@10:20	Solid	1
09196-003	C-3 BLD 2	n/a	9/17/2013@11:50	Solid	1
09196-004	C-4 IMP. METALS	n/a	9/17/2013@13:30	Solid	1
09196-005	C-5 SPHINX ELEC.	n/a	9/17/2013@15:15	Solid	1

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

This report was finalized on October 02, 2013

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received five (5) solid sample(s) from Environmental Waste Management Associates, LLC. (IAL SDG # E13-09196, Project: 50 DIVISION AVE - 208322) on September 18, 2013 for the analysis of:

(5) TCL BN + 15
(5) TCL PCB
(5) TCL Pesticides
(5) Herbicides
(1) NJ-EPH-C40
(4) NJ-EPH-Fractionated
(5) TAL Metals

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

10/2/13
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09196

Semivolatiles By **8270C/625**

Batch ID: 130919-03	**Matrix:** Soil

QC

- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E13-09196

- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- 09196-002 performed 5x dilution because of high target compounds; 09196-004 performed 5x dilution because of high target compounds; 09196-005 performed 5x dilution because of high target compounds;
- The following samples were analyzed as a straight run and no further dilutions were required: 001, 003

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-diphenylhydrazine will be directly compared to the applicable criteria for azobenzene and/or 1,2-diphenylhydrazine.

Signature

9/24/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09196

PCB By 8082

Batch ID: 130923-11	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery did not meet QC criteria. For sample 002 TCMX1 did not pass QC limits due to matrix interference.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery did not meet QC criteria. due to non-homogenius matrix of the spiked sample.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004, 005
- The following samples were cleaned up using method 3665A: 001, 002, 003, 004, 005

E13-09196

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Sample 002,003,005 were diluted 2x; sample 004 - 5x for potential matrix interference (due to color of the samples). Sample 001 was run straight.

Signature

9/25/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09196

Pesticide By 8081A

Batch ID: 130923-11	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery did not meet QC criteria. #004: DCB2 = 1090%
  #005: DCB2 = 441%
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- The RPD between the primary and secondary column was >40% for the following samples: #001, #002, #003: alpha-Chlordane, Methoxychlor. Per SW-846 8000C, the lower of the two concentrations was reported.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004, 005
- #004 failed NJ IGW QC criteria due to high dilution

E13-09196

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- #001, #003 needed 2x dilution due to high concentration of the target compound
  #002, #005 needed 5x dilution due to high concentration of the target compound #004 needed 20x dilution due to potential matrix interference due to sample color

Signature

9/26/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09196

Herbicide By 8151A

Batch ID: 130926

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery did not meet QC criteria. For samples 002,004 DCPA1 did not pass QC limits due to matrix interference. Surrogate was diluted out for sample 005.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.

E13-09196

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Sample #005 was diluted 200x for target compound. Sample 001-004 were run straight.

9/30/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09196

NJ-EPH-C40 By Method 10.08 Rev 3

Batch ID: 130919-06	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria. n-Nonane was recovered between the 25-140% recovery range.
- RPD between LCS/LCSD met QC criteria.
- MS Percent Recovery met QC criteria. n-Nonane was recovered between the 25-140% recovery range.
- RPD between the Sample/Duplicate met QC criteria.

E13-09196

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Sample 1 was run without dilution.

9/24/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09196

NJ-EPH By Method 10.08 Rev 3

Batch ID: 130923-15	**Matrix: SOLID**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- RPD between LCS/LCSD met QC criteria.
- MS Percent Recovery did not meet QC criteria. MS failed criteria for ARO fraction,due to high concentration of target analyte.
- RPD between the Sample/Duplicate met QC criteria.

E13-09196

- All samples were extracted within holding time.
- All samples were fractionated within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Following samples (ALI fraction) were run with dilutions:
  -002 (5X), -004 (10X),rest of samples were run straight.
  All samples for (ARO fraction) were run straight.

9/25/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

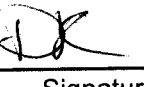
SDG#: E13-09196

METALS By 6020/7471A

Batch ID: S130919-01 (PG440) **Matrix:** Solid

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E13-09196
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.
- 09196-001 was analyzed at a 10x dilution for Hg. Sample concentration exceeded linear range. 09196-004 was analyzed at a 300x dilution for Hg. Sample concentration exceeded linear range. 09196-005 was analyzed at a 2x dilution for Cd. Ge [2] failed, dilution done to counter matrix interference. 09196-005 was analyzed at a 10x dilution for Hg. Sample concentration exceeded linear range. The following samples were analyzed as a straight run and no further dilutions were required: 002, 003



Signature

9/24/2013
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE - 208322
Lab Case No.: E13-09196

Lab ID:	09196-001			09196-002			09196-003			09196-004		
Client ID:	C-1 WAREHOUSE 1			C-2 LOAD DOCK 1			C-3 BLD 2			C-4 IMP. METALS		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene	ND		0.020	0.028	J	0.020	0.024	J	0.020	ND		0.199
2-Methylnaphthalene	0.052		0.027	0.095		0.027	ND		0.027	ND		0.275
1,1'-Biphenyl	ND		0.020	0.020	J	0.020	ND		0.020	ND		0.199
Acenaphthylene	ND		0.023	0.094		0.023	ND		0.023	ND		0.232
Acenaphthene	ND		0.026	0.094		0.026	ND		0.026	ND		0.265
Dibenzofuran	ND		0.020	0.115		0.020	ND		0.020	ND		0.199
Phenanthrene	0.444		0.022	1.22		0.022	0.234		0.022	0.418	D	0.219
Anthracene	0.034		0.033	0.129		0.033	ND		0.033	0.416	D	0.332
Di-n-butyl phthalate	3.84		0.030	19.7	D	0.148	ND		0.030	0.577	D	0.298
Fluoranthene	0.293		0.020	1.02		0.020	0.469		0.020	0.578	D	0.199
Pyrene	0.337		0.024	1.15		0.024	0.398		0.025	0.852	D	0.245
Butyl benzyl phthalate	ND		0.021	3.45		0.021	1.00		0.021	ND		0.212
3,3'-Dichlorobenzidine	ND		0.023	ND		0.023	0.126		0.023	ND		0.232
Benzo[a]anthracene	0.189		0.032	0.471		0.032	ND		0.032	ND		0.318
Chrysene	0.311		0.023	0.926		0.022	0.087		0.023	ND		0.225
Bis(2-ethylhexyl) phthalate	3.88		0.020	13.4	D	0.098	0.057		0.020	12.2	D	0.199
Di-n-octyl phthalate	ND		0.029	ND		0.029	0.724		0.030	ND		0.295
Benzo[b]fluoranthene	ND		0.020	ND		0.020	0.470		0.020	ND		0.202
Benzo[k]fluoranthene	ND		0.031	ND		0.031	0.406		0.031	ND		0.312
TOTAL BN'S:	9.38			41.9	DJ		4.00	J		15.0	D	
TOTAL TIC's:	17.1			45.7			53.7			89.1		
TOTAL BN'S & TIC's:	26.5			87.6	DJ		57.7	J		104	D	
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	ND		0.000652	ND		0.00132	ND		0.0013	ND		0.00331
Aroclor-1221	ND		0.000652	ND		0.00132	ND		0.0013	ND		0.00331
Aroclor-1232	ND		0.000652	ND		0.00132	ND		0.0013	ND		0.00331
Aroclor-1242	ND		0.000652	ND		0.00132	ND		0.0013	ND		0.00331
Aroclor-1248	ND		0.000652	ND		0.00132	ND		0.0013	ND		0.00331
Aroclor-1254	ND		0.000652	ND		0.00132	ND		0.0013	ND		0.00331
Aroclor-1260	ND		0.000652	ND		0.00132	ND		0.0013	ND		0.00331
Aroclor-1262	0.075		0.000652	0.095	D	0.00132	0.179	D	0.0013	0.793	D	0.00331
Aroclor-1268	ND		0.000652	ND		0.00132	ND		0.0013	ND		0.00331
PCBs	0.075			0.095	D		0.179	D		0.793	D	

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE - 208322
Lab Case No.: E13-09196

Lab ID:	09196-001			09196-002			09196-003			09196-004		
Client ID:	C-1 WAREHOUSE 1			C-2 LOAD DOCK 1			C-3 BLD 2			C-4 IMP. METALS		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	0.000399		0.000163	0.000388		0.000165	ND		0.000163	ND		0.00331
beta-BHC	0.00278		0.000163	0.00174		0.000165	ND		0.000163	ND		0.00331
gamma-BHC (Lindane)	0.013		0.000163	0.018		0.000165	0.00193		0.000163	ND		0.00331
delta-BHC	0.00115		0.000163	0.00108		0.000165	ND		0.000163	ND		0.00331
Heptachlor	ND		0.000163	ND		0.000165	ND		0.000163	ND		0.00331
Aldrin	0.00155		0.000163	0.00111		0.000165	ND		0.000163	ND		0.00331
Heptachlor epoxide	ND		0.000163	0.00365		0.000165	0.00166		0.000163	ND		0.00331
Endosulfan I	ND		0.000163	ND		0.000165	ND		0.000163	ND		0.00331
4,4'-DDE	0.055	D	0.000327	0.086	D	0.000825	0.034		0.000163	0.031	D	0.00331
Dieldrin	0.00262		0.000163	0.00504		0.000165	0.00342		0.000163	ND		0.00331
Endrin	ND		0.000163	ND		0.000165	ND		0.000163	ND		0.00331
Endosulfan II	ND		0.000163	ND		0.000165	ND		0.000163	ND		0.00331
4,4'-DDD	0.00674		0.000163	0.00964		0.000165	0.004		0.000163	ND		0.00331
Endrin aldehyde	ND		0.000163	ND		0.000165	ND		0.000163	0.052	D	0.00331
Endosulfan sulfate	ND		0.000163	ND		0.000165	ND		0.000163	0.031	D	0.00331
4,4'-DDT	0.097	D	0.000327	0.133	D	0.000825	0.051	D	0.000326	0.033	D	0.00331
Endrin ketone	ND		0.000163	ND		0.000165	ND		0.000163	ND		0.00331
Methoxychlor	0.037		0.000163	0.065	D	0.000825	0.021		0.000163	ND		0.00331
alpha-Chlordane	0.00463		0.000163	0.010		0.000165	0.00264		0.000163	0.0042	DJ	0.00331
gamma-Chlordane	0.00578		0.000163	0.017		0.000165	0.00275		0.000163	0.00443	DJ	0.00331
Toxaphene	ND		0.00196	ND		0.00198	ND		0.00196	ND		0.040
Endosulfan (I and II)	ND		0.000163	ND		0.000165	ND		0.000163	ND		0.00331
Chlordane (alpha and gamma)	0.010		0.000163	0.027		0.000165	0.00539		0.000163	0.00863	D	0.00331
Herbicides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dalapon	ND		0.00646	ND		0.00646	ND		0.00654	ND		0.00638
Dicamba	ND		0.00646	ND		0.00646	ND		0.00654	ND		0.00638
2,4-D	0.103		0.00646	0.048		0.00646	0.049		0.00654	ND		0.00638
2,4,5-TP (Silvex)	ND		0.00646	ND		0.00646	ND		0.00654	ND		0.00638
2,4,5-T	0.099		0.00646	0.037		0.00646	ND		0.00654	ND		0.00638
2,4-DB	ND		0.00646	ND		0.00646	ND		0.00654	ND		0.00638
Dinoseb	ND		0.00646	0.015	J	0.00646	ND		0.00654	ND		0.00638
NJ-EPH-C40 (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C40	995		8.55	~		~	~		~	~		~
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	~		~	ND		28.8	ND		5.87	ND		55.9
C12-C16 Aliphatics	~		~	67.1	D	28.8	ND		5.87	ND		55.9
C16-C21 Aliphatics	~		~	1230	D	19.2	276		3.91	659	D	37.2
C21-C40 Aliphatics	~		~	2100	D	19.2	3110		3.91	12300	D	37.2
Total Aliphatics	~		~	3400		28.8	3390		5.87	13000		55.9
C10-C12 Aromatics	~		~	ND		3.84	ND		3.91	ND		3.72
C12-C16 Aromatics	~		~	4.29	J	3.84	ND		3.91	ND		3.72
C16-C21 Aromatics	~		~	161		3.84	61.3		3.91	103		3.72
C21-C36 Aromatics	~		~	219		3.84	271		3.91	928		3.72
Total Aromatics	~		~	384	J	3.84	332		3.91	1030		3.72
Total NJ-EPH	~		~	3780	DJ	28.8	3720		5.87	14000	D	55.9

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
D = The compound was reported from the Diluted analysis

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE - 208322
Lab Case No.: E13-09196

Lab ID:	09196-001			09196-002			09196-003			09196-004		
Client ID:	C-1 WAREHOUSE 1			C-2 LOAD DOCK 1			C-3 BLD 2			C-4 IMP. METALS		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	3570		5.23	14800		5.56	7400		5.43	5310		5.32
Antimony	ND		0.262	ND		0.278	ND		0.272	ND		0.266
Arsenic	10.1		0.262	10.6		0.278	1.55		0.272	2.06		0.266
Barium	39.3		2.62	128		2.78	45.2		2.72	60.1		2.66
Beryllium	ND		0.209	0.566		0.222	ND		0.217	0.217	J	0.213
Cadmium	0.495	J	0.131	3.96		0.139	0.428	J	0.136	1.31		0.133
Calcium	44100		26.2	75400		27.8	85200		27.2	64300		26.6
Chromium	19.3		0.523	45.3		0.556	17.8		0.543	28.1		0.532
Cobalt	5.45		0.523	7.72		0.556	12.8		0.543	5.19		0.532
Copper	81.1		0.523	23.0		0.556	19.4		0.543	30.6		0.532
Iron	27300		13.1	12300		13.9	8710		13.6	9860		13.3
Lead	44.1		0.131	85.7		0.139	23.5		0.136	38.0		0.133
Magnesium	2900		13.1	3460		13.9	4310		13.6	5140		13.3
Manganese	263		0.262	131		0.278	158		0.272	214		0.266
Mercury	4.73		0.057	3.16		0.00577	3.50		0.00619	45.1		1.75
Nickel	34.2		0.523	23.5		0.556	7.60		0.543	18.6		0.532
Potassium	1080		13.1	1870		13.9	3010		13.6	4090		13.3
Selenium	ND		1.05	ND		1.11	ND		1.09	ND		1.06
Silver	0.294	J	0.131	ND		0.139	ND		0.136	ND		0.133
Sodium	1030		26.2	1710		27.8	2380		27.2	4520		26.6
Thallium	ND		0.131	ND		0.139	ND		0.136	ND		0.133
Vanadium	10.9		0.523	29.8		0.556	11.6		0.543	14.1		0.532
Zinc	33.9		2.09	209		2.22	75.2		2.17	95.0		2.13

Lab ID:	09196-005		
Client ID:	C-5 SPHINX ELEC.		
Matrix:	Solid		
Sampled Date	9/17/13		
PARAMETER(Units)	Conc	Q	MDL
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*		
Phenanthrene	0.156		0.022
Di-n-butyl phthalate	0.900		0.030
Fluoranthene	0.344		0.020
Pyrene	0.261		0.025
Benzo[a]anthracene	0.054		0.032
Chrysene	0.192		0.023
Bis(2-ethylhexyl) phthalate	19.3	D	0.100
TOTAL BN'S:	21.2	D	
TOTAL TIC's:	12.7		
TOTAL BN'S & TIC's:	33.9	D	

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
D = The compound was reported from the Diluted analysis

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE - 208322
Lab Case No.: E13-09196

Lab ID:	**09196-005**		
Client ID:	**C-5 SPHINX ELEC.**		
Matrix:	**Solid**		
Sampled Date	**9/17/13**		
PARAMETER(Units)	Conc	Q	MDL
PCB's (Units)		***(mg/Kg-ppm)***	
Aroclor-1016	ND		0.00132
Aroclor-1221	ND		0.00132
Aroclor-1232	ND		0.00132
Aroclor-1242	ND		0.00132
Aroclor-1248	ND		0.00132
Aroclor-1254	ND		0.00132
Aroclor-1260	ND		0.00132
Aroclor-1262	0.384	D	0.00132
Aroclor-1268	ND		0.00132
PCBs	0.384	D	
Pesticides (Units)		***(mg/Kg-ppm)***	
alpha-BHC	ND		0.000165
beta-BHC	ND		0.000165
gamma-BHC (Lindane)	ND		0.000165
delta-BHC	ND		0.000165
Heptachlor	ND		0.000165
Aldrin	ND		0.000165
Heptachlor epoxide	ND		0.000165
Endosulfan I	ND		0.000165
4,4'-DDE	0.115	D	0.000827
Dieldrin	ND		0.000165
Endrin	ND		0.000165
Endosulfan II	ND		0.000165
4,4'-DDD	0.00692		0.000165
Endrin aldehyde	ND		0.000165
Endosulfan sulfate	ND		0.000165
4,4'-DDT	0.086	D	0.000827
Endrin ketone	ND		0.000165
Methoxychlor	ND		0.000165
alpha-Chlordane	ND		0.000165
gamma-Chlordane	ND		0.000165
Toxaphene	ND		0.00198
Endosulfan (I and II)	ND		0.000165
Chlordane (alpha and gamma)	ND		0.000165
Herbicides (Units)		***(mg/Kg-ppm)***	
Dalapon	ND		0.636
Dicamba	ND		0.636
2,4-D	ND		0.636
2,4,5-TP (Silvex)	ND		0.636
2,4,5-T	ND		0.636
2,4-DB	ND		0.636
Dinoseb	19.8	D	1.27

ND = Analyzed for but Not Detected at the MDL
D = The compound was reported from the Diluted analysis

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE - 208322
Lab Case No.: E13-09196

Lab ID:	**09196-005**		
Client ID:	**C-5 SPHINX ELEC.**		
Matrix:	**Solid**		
Sampled Date	**9/17/13**		
PARAMETER(Units)	Conc	Q	MDL
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		5.94
C12-C16 Aliphatics	ND		5.94
C16-C21 Aliphatics	130		3.96
C21-C40 Aliphatics	2290		3.96
Total Aliphatics	2420		5.94
C10-C12 Aromatics	ND		3.96
C12-C16 Aromatics	ND		3.96
C16-C21 Aromatics	20.8		3.96
C21-C36 Aromatics	202		3.96
Total Aromatics	223		3.96
Total NJ-EPH	2640		5.94
Metals (Units)	*(mg/Kg-ppm)*		
Aluminum	6040		5.43
Antimony	ND		0.272
Arsenic	8.64		0.272
Barium	273		2.72
Beryllium	0.260	J	0.217
Cadmium	0.584	J	0.272
Calcium	52400		27.2
Chromium	31.4		0.543
Cobalt	9.51		0.543
Copper	93.7		0.543
Iron	30900		13.6
Lead	8.38		0.136
Magnesium	3470		13.6
Manganese	351		0.272
Mercury	4.53		0.059
Nickel	24.3		0.543
Potassium	2900		13.6
Selenium	ND		1.09
Silver	ND		0.136
Sodium	2590		27.2
Thallium	ND		0.136
Vanadium	20.2		0.543
Zinc	39.9		2.17

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-001
Client ID: C-1_WARE
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0136.D

GC/MS Column: DB-5
Sample wt/vol: 15.14g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.033	0.020
Bis(2-chloroethyl) ether	ND		0.033	0.023
Bis(2-chloroisopropyl) ether	ND		0.033	0.020
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.020
Hexachloroethane	ND		0.033	0.020
Nitrobenzene	ND		0.033	0.032
Isophorone	ND		0.033	0.022
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Naphthalene	ND		0.033	0.020
4-Chloroaniline	ND		0.033	0.031
Hexachlorobutadiene	ND		0.033	0.020
Caprolactam	ND		0.033	0.020
2-Methylnaphthalene	0.052		0.033	0.027
Hexachlorocyclopentadiene	ND		0.033	0.022
1,1'-Biphenyl	ND		0.033	0.020
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.020

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-001
Client ID: C-1_WARE
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0136.D

GC/MS Column: DB-5
Sample wt/vol: 15.14g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.020
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.026
2,4-Dinitrotoluene	ND		0.033	0.022
Dibenzofuran	ND		0.033	0.020
Diethyl phthalate	ND		0.033	0.024
Fluorene	ND		0.033	0.020
4-Chlorophenyl phenyl ether	ND		0.033	0.020
4-Nitroaniline	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.020
4-Bromophenyl phenyl ether	ND		0.033	0.020
Hexachlorobenzene	ND		0.033	0.026
Atrazine	ND		0.033	0.023
Phenanthrene	0.444		0.033	0.022
Anthracene	0.034		0.033	0.033
Carbazole	ND		0.033	0.020
Di-n-butyl phthalate	3.84		0.033	0.030
Fluoranthene	0.293		0.033	0.020
Pyrene	0.337		0.033	0.024
Butyl benzyl phthalate	ND		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	0.189		0.033	0.032
Chrysene	0.311		0.033	0.023
Bis(2-ethylhexyl) phthalate	3.88		0.033	0.020
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.020
Benzo[k]fluoranthene	ND		0.033	0.031
Benzo[a]pyrene	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	ND		0.033	0.022
Dibenz[a,h]anthracene	ND		0.033	0.024
Benzo[g,h,i]perylene	ND		0.033	0.030
Dinitrotoluene (2,4- and 2,6-)	ND		0.033	0.022

Total Target Compounds (53): 9.38

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09196-001
Client ID: C-1_WARE
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Date File: C0136.D

GC/MS Column: DB-5
Sample wt/vol: 15.14g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	5.23	3.92
	Unknown Hydrocarbon	0.746	4.19
	Unknown Hydrocarbon	1.29	4.40
	Unknown Hydrocarbon	0.690	4.43
	Unknown Hydrocarbon	0.459	4.50
	Unknown Hydrocarbon	1.48	5.07
	Unknown PAH	0.750	5.13
	Unknown Hydrocarbon	0.994	5.50
	Unknown Hydrocarbon	0.396	5.56
	Unknown Hydrocarbon	0.456	5.80
	Unknown SV	0.386	5.91
	Unknown Hydrocarbon	1.91	6.09
	Unknown SV	0.925	6.17
	Unknown Hydrocarbon	0.928	6.47
	Unknown Hydrocarbon	0.502	6.57

Total TICs = 17.1

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-002
Client ID: C-2_LOAD
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0137.D

GC/MS Column: DB-5
Sample wt/vol: 15.23g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.033	0.020
Bis(2-chloroethyl) ether	ND		0.033	0.023
Bis(2-chloroisopropyl) ether	ND		0.033	0.020
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.020
Hexachloroethane	ND		0.033	0.020
Nitrobenzene	ND		0.033	0.032
Isophorone	ND		0.033	0.021
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Naphthalene	0.028	J	0.033	0.020
4-Chloroaniline	ND		0.033	0.031
Hexachlorobutadiene	ND		0.033	0.020
Caprolactam	ND		0.033	0.020
2-Methylnaphthalene	0.095		0.033	0.027
Hexachlorocyclopentadiene	ND		0.033	0.022
1,1'-Biphenyl	0.020	J	0.033	0.020
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.020

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-002
Client ID: C-2_LOAD
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0137.D

GC/MS Column: DB-5
Sample wt/vol: 15.23g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.020
Acenaphthylene	0.094		0.033	0.023
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	0.094		0.033	0.026
2,4-Dinitrotoluene	ND		0.033	0.021
Dibenzofuran	0.115		0.033	0.020
Diethyl phthalate	ND		0.033	0.024
Fluorene	ND		0.033	0.020
4-Chlorophenyl phenyl ether	ND		0.033	0.020
4-Nitroaniline	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.020
4-Bromophenyl phenyl ether	ND		0.033	0.020
Hexachlorobenzene	ND		0.033	0.026
Atrazine	ND		0.033	0.023
Phenanthrene	1.22		0.033	0.022
Anthracene	0.129		0.033	0.033
Carbazole	ND		0.033	0.020
Di-n-butyl phthalate	16.5	E	0.033	0.030
Fluoranthene	1.02		0.033	0.020
Pyrene	1.15		0.033	0.024
Butyl benzyl phthalate	3.45		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	0.471		0.033	0.032
Chrysene	0.926		0.033	0.022
Bis(2-ethylhexyl) phthalate	15.5	E	0.033	0.020
Di-n-octyl phthalate	ND		0.033	0.029
Benzo[b]fluoranthene	ND		0.033	0.020
Benzo[k]fluoranthene	ND		0.033	0.031
Benzo[a]pyrene	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	ND		0.033	0.022
Dibenz[a,h]anthracene	ND		0.033	0.024
Benzo[g,h,i]perylene	ND		0.033	0.030
Dinitrotoluene (2,4- and 2,6-)	ND		0.033	0.021
Total Target Compounds (53):	40.8	JE		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09196-002
Client ID: C-2_LOAD
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Date File: C0137.D

GC/MS Column: DB-5
Sample wt/vol: 15.23g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	1.62	2.93
	Unknown Hydrocarbon	1.77	3.70
	Unknown Hydrocarbon	7.57	3.94
	Unknown Hydrocarbon	6.16	4.06
	Unknown Hydrocarbon	2.03	4.09
	Unknown Hydrocarbon	1.67	4.10
	Unknown Hydrocarbon	3.37	4.18
	Unknown Hydrocarbon	1.68	4.19
	Unknown Hydrocarbon	1.35	4.27
	Unknown Hydrocarbon	4.84	4.41
	Unknown Hydrocarbon	1.50	4.43
	Unknown Hydrocarbon	5.81	4.64
	Unknown Hydrocarbon	1.90	4.71
	Unknown Hydrocarbon	2.87	5.06
	Unknown Hydrocarbon	1.57	5.79

Total TICs = 45.7

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-002DL
Client ID: C-2_LOAD
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: C0168.D

GC/MS Column: DB-5
Sample wt/vol: 15.23g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.164	0.098
Bis(2-chloroethyl) ether	ND		0.164	0.115
Bis(2-chloroisopropyl) ether	ND		0.164	0.098
N-Nitrosodi-n-propylamine	ND		0.164	0.108
Acetophenone	ND		0.164	0.098
Hexachloroethane	ND		0.164	0.098
Nitrobenzene	ND		0.164	0.161
Isophorone	ND		0.164	0.107
Bis(2-chloroethoxy) methane	ND		0.164	0.138
Naphthalene	ND		0.164	0.098
4-Chloroaniline	ND		0.164	0.154
Hexachlorobutadiene	ND		0.164	0.098
Caprolactam	ND		0.164	0.098
2-Methylnaphthalene	ND		0.164	0.136
Hexachlorocyclopentadiene	ND		0.164	0.110
1,1'-Biphenyl	ND		0.164	0.098
2-Chloronaphthalene	ND		0.164	0.154
2-Nitroaniline	ND		0.164	0.098
Dimethyl phthalate	ND		0.164	0.098

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-002DL
Client ID: C-2_LOAD
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: C0168.D

GC/MS Column: DB-5
Sample wt/vol: 15.23g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.164	0.098
Acenaphthylene	ND		0.164	0.115
3-Nitroaniline	ND		0.164	0.136
Acenaphthene	ND		0.164	0.131
2,4-Dinitrotoluene	ND		0.164	0.107
Dibenzofuran	ND		0.164	0.098
Diethyl phthalate	ND		0.164	0.121
Fluorene	ND		0.164	0.098
4-Chlorophenyl phenyl ether	ND		0.164	0.098
4-Nitroaniline	ND		0.164	0.135
1,2,4,5-Tetrachlorobenzene	ND		0.164	0.098
N-Nitrosodiphenylamine	ND		0.164	0.098
4-Bromophenyl phenyl ether	ND		0.164	0.098
Hexachlorobenzene	ND		0.164	0.131
Atrazine	ND		0.164	0.115
Phenanthrene	0.846	D	0.164	0.108
Anthracene	ND		0.164	0.164
Carbazole	ND		0.164	0.098
Di-n-butyl phthalate	19.7	D	0.164	0.148
Fluoranthene	0.522	D	0.164	0.098
Pyrene	0.789	D	0.164	0.121
Butyl benzyl phthalate	ND		0.164	0.105
3,3'-Dichlorobenzidine	ND		0.164	0.115
Benzo[a]anthracene	0.351	D	0.164	0.158
Chrysene	0.671	D	0.164	0.112
Bis(2-ethylhexyl) phthalate	13.4	D	0.164	0.098
Di-n-octyl phthalate	ND		0.164	0.146
Benzo[b]fluoranthene	ND		0.164	0.100
Benzo[k]fluoranthene	ND		0.164	0.154
Benzo[a]pyrene	ND		0.164	0.098
Indeno[1,2,3-cd]pyrene	ND		0.164	0.108
Dibenz[a,h]anthracene	ND		0.164	0.120
Benzo[g,h,i]perylene	ND		0.164	0.148
Dinitrotoluene (2,4- and 2,6-)	ND		0.164	0.107
Total Target Compounds (53):	36.3	D		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-003
Client ID: C-3_BLD_
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0138.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.033	0.020
Bis(2-chloroethyl) ether	ND		0.033	0.023
Bis(2-chloroisopropyl) ether	ND		0.033	0.020
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.020
Hexachloroethane	ND		0.033	0.020
Nitrobenzene	ND		0.033	0.032
Isophorone	ND		0.033	0.022
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Naphthalene	0.024	J	0.033	0.020
4-Chloroaniline	ND		0.033	0.031
Hexachlorobutadiene	ND		0.033	0.020
Caprolactam	ND		0.033	0.020
2-Methylnaphthalene	ND		0.033	0.027
Hexachlorocyclopentadiene	ND		0.033	0.022
1,1'-Biphenyl	ND		0.033	0.020
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.020

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-003
Client ID: C-3_BLD_
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0138.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.020
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.027
Acenaphthene	ND		0.033	0.026
2,4-Dinitrotoluene	ND		0.033	0.022
Dibenzofuran	ND		0.033	0.020
Diethyl phthalate	ND		0.033	0.025
Fluorene	ND		0.033	0.020
4-Chlorophenyl phenyl ether	ND		0.033	0.020
4-Nitroaniline	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.020
4-Bromophenyl phenyl ether	ND		0.033	0.020
Hexachlorobenzene	ND		0.033	0.026
Atrazine	ND		0.033	0.023
Phenanthrene	0.234		0.033	0.022
Anthracene	ND		0.033	0.033
Carbazole	ND		0.033	0.020
Di-n-butyl phthalate	ND		0.033	0.030
Fluoranthene	0.469		0.033	0.020
Pyrene	0.398		0.033	0.025
Butyl benzyl phthalate	1.00		0.033	0.021
3,3'-Dichlorobenzidine	0.126		0.033	0.023
Benzo[a]anthracene	ND		0.033	0.032
Chrysene	0.087		0.033	0.023
Bis(2-ethylhexyl) phthalate	0.057		0.033	0.020
Di-n-octyl phthalate	0.724		0.033	0.030
Benzo[b]fluoranthene	0.470		0.033	0.020
Benzo[k]fluoranthene	0.406		0.033	0.031
Benzo[a]pyrene	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	ND		0.033	0.022
Dibenz[a,h]anthracene	ND		0.033	0.024
Benzo[g,h,i]perylene	ND		0.033	0.030
Dinitrotoluene (2,4- and 2,6-)	ND		0.033	0.022
Total Target Compounds (53):	4.00	J		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09196-003
Client ID: C-3_BLD_
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Date File: C0138.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	1.39	2.29
	Unknown Hydrocarbon	1.34	4.19
	Unknown Hydrocarbon	2.53	4.40
	Unknown Hydrocarbon	2.37	4.43
	Unknown Hydrocarbon	7.01	4.62
	Unknown SV	1.35	4.66
	Unknown SV	3.76	4.76
	Unknown PAH	2.29	4.81
	Unknown Hydrocarbon	7.53	4.85
	Unknown Hydrocarbon	2.38	4.98
	Unknown Hydrocarbon	2.87	5.02
	Unknown Hydrocarbon	8.46	5.07
	Unknown PAH	1.78	5.10
	Unknown Hydrocarbon	7.25	5.28
	Unknown Hydrocarbon	1.35	5.51

Total TICs = 53.7

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-004
Client ID: C-4_IMP.
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: C0169.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.332	0.199
Bis(2-chloroethyl) ether	ND		0.332	0.232
Bis(2-chloroisopropyl) ether	ND		0.332	0.199
N-Nitrosodi-n-propylamine	ND		0.332	0.219
Acetophenone	ND		0.332	0.199
Hexachloroethane	ND		0.332	0.199
Nitrobenzene	ND		0.332	0.325
Isophorone	ND		0.332	0.216
Bis(2-chloroethoxy) methane	ND		0.332	0.279
Naphthalene	ND		0.332	0.199
4-Chloroaniline	ND		0.332	0.312
Hexachlorobutadiene	ND		0.332	0.199
Caprolactam	ND		0.332	0.199
2-Methylnaphthalene	ND		0.332	0.275
Hexachlorocyclopentadiene	ND		0.332	0.222
1,1'-Biphenyl	ND		0.332	0.199
2-Chloronaphthalene	ND		0.332	0.312
2-Nitroaniline	ND		0.332	0.199
Dimethyl phthalate	ND		0.332	0.199

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-004
Client ID: C-4_IMP.
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: C0169.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.332	0.199
Acenaphthylene	ND		0.332	0.232
3-Nitroaniline	ND		0.332	0.275
Acenaphthene	ND		0.332	0.265
2,4-Dinitrotoluene	ND		0.332	0.216
Dibenzofuran	ND		0.332	0.199
Diethyl phthalate	ND		0.332	0.245
Fluorene	ND		0.332	0.199
4-Chlorophenyl phenyl ether	ND		0.332	0.199
4-Nitroaniline	ND		0.332	0.272
1,2,4,5-Tetrachlorobenzene	ND		0.332	0.199
N-Nitrosodiphenylamine	ND		0.332	0.199
4-Bromophenyl phenyl ether	ND		0.332	0.199
Hexachlorobenzene	ND		0.332	0.265
Atrazine	ND		0.332	0.232
Phenanthrene	0.418	D	0.332	0.219
Anthracene	0.416	D	0.332	0.332
Carbazole	ND		0.332	0.199
Di-n-butyl phthalate	0.577	D	0.332	0.298
Fluoranthene	0.578	D	0.332	0.199
Pyrene	0.852	D	0.332	0.245
Butyl benzyl phthalate	ND		0.332	0.212
3,3'-Dichlorobenzidine	ND		0.332	0.232
Benzo[a]anthracene	ND		0.332	0.318
Chrysene	ND		0.332	0.225
Bis(2-ethylhexyl) phthalate	12.2	D	0.332	0.199
Di-n-octyl phthalate	ND		0.332	0.295
Benzo[b]fluoranthene	ND		0.332	0.202
Benzo[k]fluoranthene	ND		0.332	0.312
Benzo[a]pyrene	ND		0.332	0.199
Indeno[1,2,3-cd]pyrene	ND		0.332	0.219
Dibenz[a,h]anthracene	ND		0.332	0.242
Benzo[g,h,i]perylene	ND		0.332	0.298
Dinitrotoluene (2,4- and 2,6-)	ND		0.332	0.216
Total Target Compounds (53):	15.0	D		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09196-004
Client ID: C-4_IMP.
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Date File: C0169.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	4.14	4.42
	Unknown Hydrocarbon	3.75	4.45
	Unknown Hydrocarbon	10.2	4.65
	Unknown SV	4.01	4.78
	Unknown Hydrocarbon	2.65	4.96
	Unknown Hydrocarbon	2.62	5.01
	Unknown Hydrocarbon	2.45	5.04
	Unknown Hydrocarbon	12.6	5.09
	Unknown Hydrocarbon	4.94	5.17
	Unknown Hydrocarbon	7.29	5.54
	Unknown Hydrocarbon	4.51	5.60
	Unknown Hydrocarbon	7.06	5.95
	Unknown Hydrocarbon	10.3	6.12
	Unknown SV	7.66	6.20
	Unknown SV	4.94	6.77

Total TICs = 89.1

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-005
Client ID: C-5_SPHI
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0140.D

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.033	0.020
Bis(2-chloroethyl) ether	ND		0.033	0.023
Bis(2-chloroisopropyl) ether	ND		0.033	0.020
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.020
Hexachloroethane	ND		0.033	0.020
Nitrobenzene	ND		0.033	0.033
Isophorone	ND		0.033	0.022
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Naphthalene	ND		0.033	0.020
4-Chloroaniline	ND		0.033	0.031
Hexachlorobutadiene	ND		0.033	0.020
Caprolactam	ND		0.033	0.020
2-Methylnaphthalene	ND		0.033	0.028
Hexachlorocyclopentadiene	ND		0.033	0.022
1,1'-Biphenyl	ND		0.033	0.020
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.020

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-005
Client ID: C-5_SPHI
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0140.D

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.020
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.028
Acenaphthene	ND		0.033	0.027
2,4-Dinitrotoluene	ND		0.033	0.022
Dibenzofuran	ND		0.033	0.020
Diethyl phthalate	ND		0.033	0.025
Fluorene	ND		0.033	0.020
4-Chlorophenyl phenyl ether	ND		0.033	0.020
4-Nitroaniline	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.020
N-Nitrosodiphenylamine	ND		0.033	0.020
4-Bromophenyl phenyl ether	ND		0.033	0.020
Hexachlorobenzene	ND		0.033	0.027
Atrazine	ND		0.033	0.023
Phenanthrene	0.156		0.033	0.022
Anthracene	ND		0.033	0.033
Carbazole	ND		0.033	0.020
Di-n-butyl phthalate	0.900		0.033	0.030
Fluoranthene	0.344		0.033	0.020
Pyrene	0.261		0.033	0.025
Butyl benzyl phthalate	ND		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	0.054		0.033	0.032
Chrysene	0.192		0.033	0.023
Bis(2-ethylhexyl) phthalate	10.8	E	0.033	0.020
Di-n-octyl phthalate	ND		0.033	0.030
Benzo[b]fluoranthene	ND		0.033	0.020
Benzo[k]fluoranthene	ND		0.033	0.031
Benzo[a]pyrene	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	ND		0.033	0.022
Dibenz[a,h]anthracene	ND		0.033	0.024
Benzo[g,h,i]perylene	ND		0.033	0.030
Dinitrotoluene (2,4- and 2,6-)	ND		0.033	0.022
Total Target Compounds (53):	12.7	E		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09196-005
Client ID: C-5_SPHI
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Date File: C0140.D

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	0.705	1.40
	Unknown SV	0.585	2.30
	Unknown SV	0.748	2.38
	Unknown SV	1.02	2.53
	Unknown SV	0.425	2.86
	Unknown SV	3.87	2.94
	Unknown SV	0.419	3.12
	Unknown SV	0.628	3.36
	Unknown SV	0.472	3.98
	Unknown Hydrocarbon	0.322	4.18
	Unknown Hydrocarbon	0.289	5.07
	Unknown Hydrocarbon	0.276	5.15
	Unknown Hydrocarbon	0.336	5.29
	Unknown Hydrocarbon	1.27	5.52
	Unknown Hydrocarbon	1.33	5.85

Total TICs = 12.7

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-005DL
Client ID: C-5_SPHI
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: C0170.D

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.166	0.100
Bis(2-chloroethyl) ether	ND		0.166	0.116
Bis(2-chloroisopropyl) ether	ND		0.166	0.100
N-Nitrosodi-n-propylamine	ND		0.166	0.110
Acetophenone	ND		0.166	0.100
Hexachloroethane	ND		0.166	0.100
Nitrobenzene	ND		0.166	0.163
Isophorone	ND		0.166	0.108
Bis(2-chloroethoxy) methane	ND		0.166	0.140
Naphthalene	ND		0.166	0.100
4-Chloroaniline	ND		0.166	0.156
Hexachlorobutadiene	ND		0.166	0.100
Caprolactam	ND		0.166	0.100
2-Methylnaphthalene	ND		0.166	0.138
Hexachlorocyclopentadiene	ND		0.166	0.111
1,1'-Biphenyl	ND		0.166	0.100
2-Chloronaphthalene	ND		0.166	0.156
2-Nitroaniline	ND		0.166	0.100
Dimethyl phthalate	ND		0.166	0.100

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09196-005DL
Client ID: C-5_SPHI
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: C0170.D

GC/MS Column: DB-5
Sample wt/vol: 15.04g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.166	0.100
Acenaphthylene	ND		0.166	0.116
3-Nitroaniline	ND		0.166	0.138
Acenaphthene	ND		0.166	0.133
2,4-Dinitrotoluene	ND		0.166	0.108
Dibenzofuran	ND		0.166	0.100
Diethyl phthalate	ND		0.166	0.123
Fluorene	ND		0.166	0.100
4-Chlorophenyl phenyl ether	ND		0.166	0.100
4-Nitroaniline	ND		0.166	0.136
1,2,4,5-Tetrachlorobenzene	ND		0.166	0.100
N-Nitrosodiphenylamine	ND		0.166	0.100
4-Bromophenyl phenyl ether	ND		0.166	0.100
Hexachlorobenzene	ND		0.166	0.133
Atrazine	ND		0.166	0.116
Phenanthrene	0.173	D	0.166	0.110
Anthracene	ND		0.166	0.166
Carbazole	ND		0.166	0.100
Di-n-butyl phthalate	1.41	D	0.166	0.150
Fluoranthene	0.393	D	0.166	0.100
Pyrene	0.402	D	0.166	0.123
Butyl benzyl phthalate	ND		0.166	0.106
3,3'-Dichlorobenzidine	ND		0.166	0.116
Benzo[a]anthracene	ND		0.166	0.160
Chrysene	0.341	D	0.166	0.113
Bis(2-ethylhexyl) phthalate	19.3	D	0.166	0.100
Di-n-octyl phthalate	ND		0.166	0.148
Benzo[b]fluoranthene	ND		0.166	0.101
Benzo[k]fluoranthene	ND		0.166	0.156
Benzo[a]pyrene	ND		0.166	0.100
Indeno[1,2,3-cd]pyrene	ND		0.166	0.110
Dibenz[a,h]anthracene	ND		0.166	0.121
Benzo[g,h,i]perylene	ND		0.166	0.150
Dinitrotoluene (2,4- and 2,6-)	ND		0.166	0.108
Total Target Compounds (53):	22.0	D		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09196-001
Client ID: C-1_WAREHO
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4371.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.59g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00163	0.000652
Aroclor-1221	ND		0.00163	0.000652
Aroclor-1232	ND		0.00163	0.000652
Aroclor-1242	ND		0.00163	0.000652
Aroclor-1248	ND		0.00163	0.000652
Aroclor-1254	ND		0.00163	0.000652
Aroclor-1260	ND		0.00163	0.000652
Aroclor-1262	0.075		0.00163	0.000652
Aroclor-1268	ND		0.00163	0.000652
PCBs	0.075		0.00163	0.000652

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09196-002
Client ID: C-2_LOAD_D
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4372.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.30g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.0033	0.00132
Aroclor-1221	ND		0.0033	0.00132
Aroclor-1232	ND		0.0033	0.00132
Aroclor-1242	ND		0.0033	0.00132
Aroclor-1248	ND		0.0033	0.00132
Aroclor-1254	ND		0.0033	0.00132
Aroclor-1260	ND		0.0033	0.00132
Aroclor-1262	0.095	D	0.0033	0.00132
Aroclor-1268	ND		0.0033	0.00132
PCBs	0.095	D	0.0033	0.00132

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09196-003
Client ID: C-3_BLD_2
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4373.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.69g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00326	0.0013
Aroclor-1221	ND		0.00326	0.0013
Aroclor-1232	ND		0.00326	0.0013
Aroclor-1242	ND		0.00326	0.0013
Aroclor-1248	ND		0.00326	0.0013
Aroclor-1254	ND		0.00326	0.0013
Aroclor-1260	ND		0.00326	0.0013
Aroclor-1262	0.179	D	0.00326	0.0013
Aroclor-1268	ND		0.00326	0.0013
PCBs	0.179	D	0.00326	0.0013

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09196-004
Client ID: C-4_IMP._M
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4374.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.24g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00827	0.00331
Aroclor-1221	ND		0.00827	0.00331
Aroclor-1232	ND		0.00827	0.00331
Aroclor-1242	ND		0.00827	0.00331
Aroclor-1248	ND		0.00827	0.00331
Aroclor-1254	ND		0.00827	0.00331
Aroclor-1260	ND		0.00827	0.00331
Aroclor-1262	0.793	D	0.00827	0.00331
Aroclor-1268	ND		0.00827	0.00331
PCBs	0.793	D	0.00827	0.00331

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09196-005
Client ID: C-5_SPHINX
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4383.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.22g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00331	0.00132
Aroclor-1221	ND		0.00331	0.00132
Aroclor-1232	ND		0.00331	0.00132
Aroclor-1242	ND		0.00331	0.00132
Aroclor-1248	ND		0.00331	0.00132
Aroclor-1254	ND		0.00331	0.00132
Aroclor-1260	ND		0.00331	0.00132
Aroclor-1262	0.384	D	0.00331	0.00132
Aroclor-1268	ND		0.00331	0.00132
PCBs	0.384	D	0.00331	0.00132

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-001
Client ID: C-1_WAREHO
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4629.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.59g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	0.000399		0.000326	0.000163
beta-BHC	0.00278		0.000326	0.000163
gamma-BHC (Lindane)	0.013		0.000326	0.000163
delta-BHC	0.00115		0.000326	0.000163
Heptachlor	ND		0.000326	0.000163
Aldrin	0.00155		0.000326	0.000163
Heptachlor epoxide	ND		0.000326	0.000163
Endosulfan I	ND		0.000326	0.000163
4,4'-DDE	0.050	E	0.000326	0.000163
Dieldrin	0.00262		0.000326	0.000163
Endrin	ND		0.000326	0.000163
Endosulfan II	ND		0.000326	0.000163
4,4'-DDD	0.00674		0.000326	0.000163
Endrin aldehyde	ND		0.000326	0.000163
Endosulfan sulfate	ND		0.000326	0.000163
4,4'-DDT	0.093	E	0.000326	0.000163
Endrin ketone	ND		0.000326	0.000163
Methoxychlor	0.037		0.000326	0.000163
alpha-Chlordane	0.00463		0.000326	0.000163
gamma-Chlordane	0.00578		0.000326	0.000163
Toxaphene	ND		0.00408	0.00196
Endosulfan (I and II)	ND		0.000326	0.000163
Chlordane (alpha and gamma)	0.010		0.000326	0.000163

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-001DL
Client ID: C-1_WAREHO
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4636.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.59g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	0.000458	DJ	0.000654	0.000327
beta-BHC	0.00283	D	0.000654	0.000327
gamma-BHC (Lindane)	0.013	D	0.000654	0.000327
delta-BHC	0.00104	D	0.000654	0.000327
Heptachlor	ND		0.000654	0.000327
Aldrin	0.00154	D	0.000654	0.000327
Heptachlor epoxide	ND		0.000654	0.000327
Endosulfan I	ND		0.000654	0.000327
4,4'-DDE	0.055	D	0.000654	0.000327
Dieldrin	0.00284	D	0.000654	0.000327
Endrin	ND		0.000654	0.000327
Endosulfan II	ND		0.000654	0.000327
4,4'-DDD	0.00652	D	0.000654	0.000327
Endrin aldehyde	ND		0.000654	0.000327
Endosulfan sulfate	ND		0.000654	0.000327
4,4'-DDT	0.097	D	0.000654	0.000327
Endrin ketone	ND		0.000654	0.000327
Methoxychlor	0.037	D	0.000654	0.000327
alpha-Chlordane	0.00503	D	0.000654	0.000327
gamma-Chlordane	0.00568	D	0.000654	0.000327
Toxaphene	ND		0.00818	0.00392
Endosulfan (I and II)	ND		0.000654	0.000327
Chlordane (alpha and gamma)	0.011	D	0.000654	0.000327

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-002
Client ID: C-2_LOAD_D
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4630.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.30g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	0.000388		0.00033	0.000165
beta-BHC	0.00174		0.00033	0.000165
gamma-BHC (Lindane)	0.018		0.00033	0.000165
delta-BHC	0.00108		0.00033	0.000165
Heptachlor	ND		0.00033	0.000165
Aldrin	0.00111		0.00033	0.000165
Heptachlor epoxide	0.00365		0.00033	0.000165
Endosulfan I	ND		0.00033	0.000165
4,4'-DDE	0.088	E	0.00033	0.000165
Dieldrin	0.00504		0.00033	0.000165
Endrin	ND		0.00033	0.000165
Endosulfan II	ND		0.00033	0.000165
4,4'-DDD	0.00964		0.00033	0.000165
Endrin aldehyde	ND		0.00033	0.000165
Endosulfan sulfate	ND		0.00033	0.000165
4,4'-DDT	0.147	E	0.00033	0.000165
Endrin ketone	ND		0.00033	0.000165
Methoxychlor	0.071	E	0.00033	0.000165
alpha-Chlordane	0.010		0.00033	0.000165
gamma-Chlordane	0.017		0.00033	0.000165
Toxaphene	ND		0.00413	0.00198
Endosulfan (I and II)	ND		0.00033	0.000165
Chlordane (alpha and gamma)	0.027		0.00033	0.000165

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-002DL
Client ID: C-2_LOAD_D
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4637.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.30g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00165	0.000825
beta-BHC	ND		0.00165	0.000825
gamma-BHC (Lindane)	0.016	D	0.00165	0.000825
delta-BHC	0.00137	DJ	0.00165	0.000825
Heptachlor	0.00141	DJ	0.00165	0.000825
Aldrin	ND		0.00165	0.000825
Heptachlor epoxide	0.00517	D	0.00165	0.000825
Endosulfan I	ND		0.00165	0.000825
4,4'-DDE	0.086	D	0.00165	0.000825
Dieldrin	0.00506	D	0.00165	0.000825
Endrin	ND		0.00165	0.000825
Endosulfan II	ND		0.00165	0.000825
4,4'-DDD	0.00713	D	0.00165	0.000825
Endrin aldehyde	ND		0.00165	0.000825
Endosulfan sulfate	ND		0.00165	0.000825
4,4'-DDT	0.133	D	0.00165	0.000825
Endrin ketone	ND		0.00165	0.000825
Methoxychlor	0.065	D	0.00165	0.000825
alpha-Chlordane	0.00972	D	0.00165	0.000825
gamma-Chlordane	0.010	D	0.00165	0.000825
Toxaphene	ND		0.021	0.0099
Endosulfan (I and II)	ND		0.00165	0.000825
Chlordane (alpha and gamma)	0.020	D	0.00165	0.000825

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-003
Client ID: C-3_BLD_2
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4631.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.69g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000326	0.000163
beta-BHC	ND		0.000326	0.000163
gamma-BHC (Lindane)	0.00193		0.000326	0.000163
delta-BHC	ND		0.000326	0.000163
Heptachlor	ND		0.000326	0.000163
Aldrin	ND		0.000326	0.000163
Heptachlor epoxide	0.00166		0.000326	0.000163
Endosulfan I	ND		0.000326	0.000163
4,4'-DDE	0.034		0.000326	0.000163
Dieldrin	0.00342		0.000326	0.000163
Endrin	ND		0.000326	0.000163
Endosulfan II	ND		0.000326	0.000163
4,4'-DDD	0.004		0.000326	0.000163
Endrin aldehyde	ND		0.000326	0.000163
Endosulfan sulfate	ND		0.000326	0.000163
4,4'-DDT	0.050	E	0.000326	0.000163
Endrin ketone	ND		0.000326	0.000163
Methoxychlor	0.021		0.000326	0.000163
alpha-Chlordane	0.00264		0.000326	0.000163
gamma-Chlordane	0.00275		0.000326	0.000163
Toxaphene	ND		0.00408	0.00196
Endosulfan (I and II)	ND		0.000326	0.000163
Chlordane (alpha and gamma)	0.00539		0.000326	0.000163

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-003DL
Client ID: C-3_BLD_2
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4638.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.69g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000652	0.000326
beta-BHC	ND		0.000652	0.000326
gamma-BHC (Lindane)	0.00339	D	0.000652	0.000326
delta-BHC	ND		0.000652	0.000326
Heptachlor	ND		0.000652	0.000326
Aldrin	ND		0.000652	0.000326
Heptachlor epoxide	0.00107	D	0.000652	0.000326
Endosulfan I	ND		0.000652	0.000326
4,4'-DDE	0.036	D	0.000652	0.000326
Dieldrin	ND		0.000652	0.000326
Endrin	ND		0.000652	0.000326
Endosulfan II	ND		0.000652	0.000326
4,4'-DDD	0.0047	D	0.000652	0.000326
Endrin aldehyde	ND		0.000652	0.000326
Endosulfan sulfate	ND		0.000652	0.000326
4,4'-DDT	0.051	D	0.000652	0.000326
Endrin ketone	ND		0.000652	0.000326
Methoxychlor	0.018	D	0.000652	0.000326
alpha-Chlordane	0.00324	D	0.000652	0.000326
gamma-Chlordane	0.0033	D	0.000652	0.000326
Toxaphene	ND		0.00815	0.00391
Endosulfan (I and II)	ND		0.000652	0.000326
Chlordane (alpha and gamma)	0.00654	D	0.000652	0.000326

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-004
Client ID: C-4_IMP._M
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4632.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.24g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 20
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00661	0.00331
beta-BHC	ND		0.00661	0.00331
gamma-BHC (Lindane)	ND		0.00661	0.00331
delta-BHC	ND		0.00661	0.00331
Heptachlor	ND		0.00661	0.00331
Aldrin	ND		0.00661	0.00331
Heptachlor epoxide	ND		0.00661	0.00331
Endosulfan I	ND		0.00661	0.00331
4,4'-DDE	0.031	D	0.00661	0.00331
Dieldrin	ND		0.00661	0.00331
Endrin	ND		0.00661	0.00331
Endosulfan II	ND		0.00661	0.00331
4,4'-DDD	ND		0.00661	0.00331
Endrin aldehyde	0.052	D	0.00661	0.00331
Endosulfan sulfate	0.031	D	0.00661	0.00331
4,4'-DDT	0.033	D	0.00661	0.00331
Endrin ketone	ND		0.00661	0.00331
Methoxychlor	ND		0.00661	0.00331
alpha-Chlordane	0.0042	DJ	0.00661	0.00331
gamma-Chlordane	0.00443	DJ	0.00661	0.00331
Toxaphene	ND		0.083	0.040
Endosulfan (I and II)	ND		0.00661	0.00331
Chlordane (alpha and gamma)	0.00863	D	0.00661	0.00331

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-005
Client ID: C-5_SPHINX
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4633.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.22g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00033	0.000165
beta-BHC	ND		0.00033	0.000165
gamma-BHC (Lindane)	ND		0.00033	0.000165
delta-BHC	ND		0.00033	0.000165
Heptachlor	ND		0.00033	0.000165
Aldrin	ND		0.00033	0.000165
Heptachlor epoxide	ND		0.00033	0.000165
Endosulfan I	ND		0.00033	0.000165
4,4'-DDE	0.116	E	0.00033	0.000165
Dieldrin	ND		0.00033	0.000165
Endrin	ND		0.00033	0.000165
Endosulfan II	ND		0.00033	0.000165
4,4'-DDD	0.00692		0.00033	0.000165
Endrin aldehyde	ND		0.00033	0.000165
Endosulfan sulfate	ND		0.00033	0.000165
4,4'-DDT	0.103	E	0.00033	0.000165
Endrin ketone	ND		0.00033	0.000165
Methoxychlor	ND		0.00033	0.000165
alpha-Chlordane	ND		0.00033	0.000165
gamma-Chlordane	ND		0.00033	0.000165
Toxaphene	ND		0.00413	0.00198
Endosulfan (I and II)	ND		0.00033	0.000165
Chlordane (alpha and gamma)	ND		0.00033	0.000165

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09196-005DL
Client ID: C-5_SPHINX
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4639.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.22g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00165	0.000827
beta-BHC	ND		0.00165	0.000827
gamma-BHC (Lindane)	ND		0.00165	0.000827
delta-BHC	ND		0.00165	0.000827
Heptachlor	ND		0.00165	0.000827
Aldrin	ND		0.00165	0.000827
Heptachlor epoxide	ND		0.00165	0.000827
Endosulfan I	ND		0.00165	0.000827
4,4'-DDE	0.115	D	0.00165	0.000827
Dieldrin	ND		0.00165	0.000827
Endrin	ND		0.00165	0.000827
Endosulfan II	ND		0.00165	0.000827
4,4'-DDD	0.00603	D	0.00165	0.000827
Endrin aldehyde	ND		0.00165	0.000827
Endosulfan sulfate	ND		0.00165	0.000827
4,4'-DDT	0.086	D	0.00165	0.000827
Endrin ketone	ND		0.00165	0.000827
Methoxychlor	ND		0.00165	0.000827
alpha-Chlordane	ND		0.00165	0.000827
gamma-Chlordane	ND		0.00165	0.000827
Toxaphene	ND		0.021	0.00992
Endosulfan (I and II)	ND		0.00165	0.000827
Chlordane (alpha and gamma)	ND		0.00165	0.000827

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09196-001
Client ID: C-1_WAREHO
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0328.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.46g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.016	0.00646
Dicamba	ND		0.016	0.00646
2,4-D	0.103		0.016	0.00646
2,4,5-TP (Silvex)	ND		0.016	0.00646
2,4,5-T	0.099		0.016	0.00646
2,4-DB	ND		0.016	0.00646
Dinoseb	ND		0.016	0.00646

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09196-002
Client ID: C-2_LOAD_D
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0329.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.49g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.016	0.00646
Dicamba	ND		0.016	0.00646
2,4-D	0.048		0.016	0.00646
2,4,5-TP (Silvex)	ND		0.016	0.00646
2,4,5-T	0.037		0.016	0.00646
2,4-DB	ND		0.016	0.00646
Dinoseb	0.015	J	0.016	0.00646

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09196-003
Client ID: C-3_BLD_2
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0330.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.31g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.016	0.00654
Dicamba	ND		0.016	0.00654
2,4-D	0.049		0.016	0.00654
2,4,5-TP (Silvex)	ND		0.016	0.00654
2,4,5-T	ND		0.016	0.00654
2,4-DB	ND		0.016	0.00654
Dinoseb	ND		0.016	0.00654

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09196-004
Client ID: C-4_IMP._M
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0331.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.69g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.016	0.00638
Dicamba	ND		0.016	0.00638
2,4-D	ND		0.016	0.00638
2,4,5-TP (Silvex)	ND		0.016	0.00638
2,4,5-T	ND		0.016	0.00638
2,4-DB	ND		0.016	0.00638
Dinoseb	ND		0.016	0.00638

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09196-005
Client ID: C-5_SPHINX
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0338.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.73g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 100
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		1.59	0.636
Dicamba	ND		1.59	0.636
2,4-D	ND		1.59	0.636
2,4,5-TP (Silvex)	ND		1.59	0.636
2,4,5-T	ND		1.59	0.636
2,4-DB	ND		1.59	0.636
Dinoseb	15.8	ED	1.59	0.636

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09196-005DL
Client ID: C-5_SPHINX
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0339.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.73g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 200
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		3.18	1.27
Dicamba	ND		3.18	1.27
2,4-D	ND		3.18	1.27
2,4,5-TP (Silvex)	ND		3.18	1.27
2,4,5-T	ND		3.18	1.27
2,4-DB	ND		3.18	1.27
Dinoseb	19.8	D	3.18	1.27

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09196-001
Client ID: C-1_WARE
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0814.D

GC Column: RTX-5
Sample wt/vol: 10.53g
Matrix-Units: Solid-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
C9-C40	995		34.2	8.55

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 09196-002
Client ID: C-2_LOAD
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6389.D
Dilution Factor: 5

GC Column: HP-5
Sample wt/vol: 5.21g
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture: NA
Aro Date Analyzed: 09/24/2013
Data file: UB4464.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		57.6	28.8
C12-C16 Aliphatics	67.1	D	38.4	28.8
C16-C21 Aliphatics	1230	D	57.6	19.2
C21-C40 Aliphatics	2100	D	192	19.2
Total Aliphatics	3400		192	28.8
C10-C12 Aromatics	ND		7.68	3.84
C12-C16 Aromatics	4.29	J	11.5	3.84
C16-C21 Aromatics	161		19.2	3.84
C21-C36 Aromatics	219		30.7	3.84
Total Aromatics	384	J	30.7	3.84
Total NJ-EPH	3780	DJ	192	28.8

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 09196-003
Client ID: C-3_BLD_
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6390.D
Dilution Factor: 1

GC Column: HP-5
Sample wt/vol: 5.11g
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture: NA
Aro Date Analyzed: 09/24/2013
Data file: UB4465.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		11.7	5.87
C12-C16 Aliphatics	ND		7.83	5.87
C16-C21 Aliphatics	276		11.7	3.91
C21-C40 Aliphatics	3110		39.1	3.91
Total Aliphatics	3390		39.1	5.87
C10-C12 Aromatics	ND		7.83	3.91
C12-C16 Aromatics	ND		11.7	3.91
C16-C21 Aromatics	61.3		19.6	3.91
C21-C36 Aromatics	271		31.3	3.91
Total Aromatics	332		31.3	3.91
Total NJ-EPH	3720		39.1	5.87

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 09196-004
Client ID: C-4_IMP.
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6391.D
Dilution Factor: 10

GC Column: HP-5
Sample wt/vol: 5.37g
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture: NA
Aro Date Analyzed: 09/24/2013
Data file: UB4466.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		112	55.9
C12-C16 Aliphatics	ND		74.5	55.9
C16-C21 Aliphatics	659	D	112	37.2
C21-C40 Aliphatics	12300	D	372	37.2
Total Aliphatics	13000		372	55.9
C10-C12 Aromatics	ND		7.45	3.72
C12-C16 Aromatics	ND		11.2	3.72
C16-C21 Aromatics	103		18.6	3.72
C21-C36 Aromatics	928		29.8	3.72
Total Aromatics	1030		29.8	3.72
Total NJ-EPH	14000	D	372	55.9

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 09196-005
Client ID: C-5_SPHI
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6392.D
Dilution Factor: 1

GC Column: HP-5
Sample wt/vol: 5.05g
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture: NA
Aro Date Analyzed: 09/24/2013
Data file: UB4467.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		11.9	5.94
C12-C16 Aliphatics	ND		7.92	5.94
C16-C21 Aliphatics	130		11.9	3.96
C21-C40 Aliphatics	2290		39.6	3.96
Total Aliphatics	2420		39.6	5.94
C10-C12 Aromatics	ND		7.92	3.96
C12-C16 Aromatics	ND		11.9	3.96
C16-C21 Aromatics	20.8		19.8	3.96
C21-C36 Aromatics	202		31.7	3.96
Total Aromatics	223		31.7	3.96
Total NJ-EPH	2640		39.6	5.94

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE - 208322

Lab ID: E13-09196-001
Client ID: C-1 WAREHOUSE 1
Date Collected: 09/17/13 08:30
Date Received: 09/18/13 16:25
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture: 0
Batch #: 440

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	3570		1	10.5	5.23	09/20/13 16:18	6020
Antimony	ND		1	1.05	0.262	09/20/13 16:18	6020
Arsenic	10.1		1	0.523	0.262	09/20/13 16:18	6020
Barium	39.3		1	10.5	2.62	09/20/13 16:18	6020
Beryllium	ND		1	0.366	0.209	09/20/13 16:18	6020
Cadmium	0.495	J	1	0.523	0.131	09/20/13 16:18	6020
Calcium	44100		1	52.3	26.2	09/20/13 16:18	6020
Chromium	19.3		1	2.09	0.523	09/20/13 16:18	6020
Cobalt	5.45		1	2.09	0.523	09/20/13 16:18	6020
Copper	81.1		1	2.09	0.523	09/20/13 16:18	6020
Iron	27300		1	26.2	13.1	09/20/13 16:18	6020
Lead	44.1		1	0.523	0.131	09/20/13 16:18	6020
Magnesium	2900		1	52.3	13.1	09/20/13 16:18	6020
Manganese	263		1	1.05	0.262	09/20/13 16:18	6020
Mercury	4.73		10	0.118	0.057	09/20/13 15:42	7471A
Nickel	34.2		1	1.05	0.523	09/20/13 16:18	6020
Potassium	1080		1	52.3	13.1	09/20/13 16:18	6020
Selenium	ND		1	2.09	1.05	09/20/13 16:18	6020
Silver	0.294	J	1	0.523	0.131	09/20/13 16:18	6020
Sodium	1030		1	105	26.2	09/20/13 16:18	6020
Thallium	ND		1	0.523	0.131	09/20/13 16:18	6020
Vanadium	10.9		1	2.09	0.523	09/20/13 16:18	6020
Zinc	33.9		1	2.09	2.09	09/20/13 16:18	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE - 208322

Lab ID: E13-09196-002
Client ID: C-2 LOAD DOCK 1
Date Collected: 09/17/13 10:20
Date Received: 09/18/13 16:25
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture:
Batch #: 440

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	14800		1	11.1	5.56	09/20/13 16:22	6020
Antimony	ND		1	1.11	0.278	09/20/13 16:22	6020
Arsenic	10.6		1	0.556	0.278	09/20/13 16:22	6020
Barium	128		1	11.1	2.78	09/20/13 16:22	6020
Beryllium	0.566		1	0.389	0.222	09/20/13 16:22	6020
Cadmium	3.96		1	0.556	0.139	09/20/13 16:22	6020
Calcium	75400		1	55.6	27.8	09/20/13 16:22	6020
Chromium	45.3		1	2.22	0.556	09/20/13 16:22	6020
Cobalt	7.72		1	2.22	0.556	09/20/13 16:22	6020
Copper	23.0		1	2.22	0.556	09/20/13 16:22	6020
Iron	12300		1	27.8	13.9	09/20/13 16:22	6020
Lead	85.7		1	0.556	0.139	09/20/13 16:22	6020
Magnesium	3460		1	55.6	13.9	09/20/13 16:22	6020
Manganese	131		1	1.11	0.278	09/20/13 16:22	6020
Mercury	3.16		1	0.012	0.00577	09/20/13 15:44	7471A
Nickel	23.5		1	1.11	0.556	09/20/13 16:22	6020
Potassium	1870		1	55.6	13.9	09/20/13 16:22	6020
Selenium	ND		1	2.22	1.11	09/20/13 16:22	6020
Silver	ND		1	0.556	0.139	09/20/13 16:22	6020
Sodium	1710		1	111	27.8	09/20/13 16:22	6020
Thallium	ND		1	0.556	0.139	09/20/13 16:22	6020
Vanadium	29.8		1	2.22	0.556	09/20/13 16:22	6020
Zinc	209		1	2.22	2.22	09/20/13 16:22	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE - 208322

Lab ID: E13-09196-003
Client ID: C-3 BLD 2
Date Collected: 09/17/13 11:50
Date Received: 09/18/13 16:25
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture:
Batch #: 440

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	7400		1	10.9	5.43	09/20/13 16:26	6020
Antimony	ND		1	1.09	0.272	09/20/13 16:26	6020
Arsenic	1.55		1	0.543	0.272	09/20/13 16:26	6020
Barium	45.2		1	10.9	2.72	09/20/13 16:26	6020
Beryllium	ND		1	0.380	0.217	09/20/13 16:26	6020
Cadmium	0.428	J	1	0.543	0.136	09/20/13 16:26	6020
Calcium	85200		1	54.3	27.2	09/20/13 16:26	6020
Chromium	17.8		1	2.17	0.543	09/20/13 16:26	6020
Cobalt	12.8		1	2.17	0.543	09/20/13 16:26	6020
Copper	19.4		1	2.17	0.543	09/20/13 16:26	6020
Iron	8710		1	27.2	13.6	09/20/13 16:26	6020
Lead	23.5		1	0.543	0.136	09/20/13 16:26	6020
Magnesium	4310		1	54.3	13.6	09/20/13 16:26	6020
Manganese	158		1	1.09	0.272	09/20/13 16:26	6020
Mercury	3.50		1	0.013	0.00619	09/20/13 15:47	7471A
Nickel	7.60		1	1.09	0.543	09/20/13 16:26	6020
Potassium	3010		1	54.3	13.6	09/20/13 16:26	6020
Selenium	ND		1	2.17	1.09	09/20/13 16:26	6020
Silver	ND		1	0.543	0.136	09/20/13 16:26	6020
Sodium	2380		1	109	27.2	09/20/13 16:26	6020
Thallium	ND		1	0.543	0.136	09/20/13 16:26	6020
Vanadium	11.6		1	2.17	0.543	09/20/13 16:26	6020
Zinc	75.2		1	2.17	2.17	09/20/13 16:26	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE - 208322

Lab ID: E13-09196-004
Client ID: C-4 IMP. METALS
Date Collected: 09/17/13 13:30
Date Received: 09/18/13 16:25
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture:
Batch #: 440

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	5310		1	10.6	5.32	09/20/13 16:30	6020
Antimony	ND		1	1.06	0.266	09/20/13 16:30	6020
Arsenic	2.06		1	0.532	0.266	09/20/13 16:30	6020
Barium	60.1		1	10.6	2.66	09/20/13 16:30	6020
Beryllium	0.217	J	1	0.372	0.213	09/20/13 16:30	6020
Cadmium	1.31		1	0.532	0.133	09/20/13 16:30	6020
Calcium	64300		1	53.2	26.6	09/20/13 16:30	6020
Chromium	28.1		1	2.13	0.532	09/20/13 16:30	6020
Cobalt	5.19		1	2.13	0.532	09/20/13 16:30	6020
Copper	30.6		1	2.13	0.532	09/20/13 16:30	6020
Iron	9860		1	26.6	13.3	09/20/13 16:30	6020
Lead	38.0		1	0.532	0.133	09/20/13 16:30	6020
Magnesium	5140		1	53.2	13.3	09/20/13 16:30	6020
Manganese	214		1	1.06	0.266	09/20/13 16:30	6020
Mercury	45.1		300	3.64	1.75	09/20/13 15:50	7471A
Nickel	18.6		1	1.06	0.532	09/20/13 16:30	6020
Potassium	4090		1	53.2	13.3	09/20/13 16:30	6020
Selenium	ND		1	2.13	1.06	09/20/13 16:30	6020
Silver	ND		1	0.532	0.133	09/20/13 16:30	6020
Sodium	4520		1	106	26.6	09/20/13 16:30	6020
Thallium	ND		1	0.532	0.133	09/20/13 16:30	6020
Vanadium	14.1		1	2.13	0.532	09/20/13 16:30	6020
Zinc	95.0		1	2.13	2.13	09/20/13 16:30	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE - 208322

Lab ID: E13-09196-005
Client ID: C-5 SPHINX ELEC.
Date Collected: 09/17/13 15:15
Date Received: 09/18/13 16:25
Matrix-Units: Solid-mg/Kg (ppm)
% Moisture:
Batch #: 440

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	6040		1	10.9	5.43	09/20/13 16:34	6020
Antimony	ND		1	1.09	0.272	09/20/13 16:34	6020
Arsenic	8.64		1	0.543	0.272	09/20/13 16:34	6020
Barium	273		1	10.9	2.72	09/20/13 16:34	6020
Beryllium	0.260	J	1	0.380	0.217	09/20/13 16:34	6020
Cadmium	0.584	J	2	1.09	0.272	09/23/13 13:21	6020
Calcium	52400		1	54.3	27.2	09/20/13 16:34	6020
Chromium	31.4		1	2.17	0.543	09/20/13 16:34	6020
Cobalt	9.51		1	2.17	0.543	09/20/13 16:34	6020
Copper	93.7		1	2.17	0.543	09/20/13 16:34	6020
Iron	30900		1	27.2	13.6	09/20/13 16:34	6020
Lead	8.38		1	0.543	0.136	09/20/13 16:34	6020
Magnesium	3470		1	54.3	13.6	09/20/13 16:34	6020
Manganese	351		1	1.09	0.272	09/20/13 16:34	6020
Mercury	4.53		10	0.123	0.059	09/20/13 15:52	7471A
Nickel	24.3		1	1.09	0.543	09/20/13 16:34	6020
Potassium	2900		1	54.3	13.6	09/20/13 16:34	6020
Selenium	ND		1	2.17	1.09	09/20/13 16:34	6020
Silver	ND		1	0.543	0.136	09/20/13 16:34	6020
Sodium	2590		1	109	27.2	09/20/13 16:34	6020
Thallium	ND		1	0.543	0.136	09/20/13 16:34	6020
Vanadium	20.2		1	2.17	0.543	09/20/13 16:34	6020
Zinc	39.9		1	2.17	2.17	09/20/13 16:34	6020

SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/20/2013

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNA2		C0112.D	N/A	N/A	N/A	N/A	N/A	N/A
BLKS130919-03	SOIL	C0132.D	52	56	80	73	49	94
LCSS130919-03	SOIL	C0133.D	48	51	79	72	45	91
E13-09196-001MS	SOIL	C0134.D	58	62	64	69	65	72
E13-09196-001MSD	SOIL	C0135.D	63	65	68	62	65	70
E13-09196-001	SOIL	C0136.D	N/A	N/A	65	64	N/A	74
E13-09196-002	SOIL	C0137.D	N/A	N/A	57	59	N/A	58
E13-09196-003	SOIL	C0138.D	N/A	N/A	55	53	N/A	44
E13-09196-005	SOIL	C0140.D	N/A	N/A	52	53	N/A	59
E13-09197-010	SOIL	C0141.D	N/A	N/A	51	54	N/A	87
E13-08977-004	SOIL	C0142.D	N/A	N/A	65	68	N/A	68
E13-09197-004	SOIL	C0143.D	N/A	N/A	35	38	N/A	35
E13-09197-005	SOIL	C0144.D	N/A	N/A	56	56	N/A	56
E13-09197-009	SOIL	C0145.D	N/A	N/A	26	36	N/A	32

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNA2		C0167.D	N/A	N/A	N/A	N/A	N/A	N/A
E13-09196-002DL	SOIL	C0168.D	N/A	N/A	30	40	N/A	45
E13-09196-004	SOIL	C0169.D	N/A	N/A	65	45	N/A	50
E13-09196-005DL	SOIL	C0170.D	N/A	N/A	85	80	N/A	90

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130919-03
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0133.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	50.0	36.5	73		40 - 140
Pyridine	50.0	32.9	66		20 - 120
Benzaldehyde	50.0	23.2	46		10 - 110
Phenol	50.0	39.0	78		30 - 140
Aniline	50.0	36.2	72		40 - 140
Bis(2-chloroethyl) ether	50.0	38.6	77		40 - 140
2-Chlorophenol	50.0	32.3	65		30 - 140
1,3-Dichlorobenzene	50.0	32.6	65		40 - 140
1,4-Dichlorobenzene	50.0	32.7	65		40 - 140
Benzyl alcohol	50.0	19.9	40		40 - 140
1,2-Dichlorobenzene	50.0	32.9	66		40 - 140
2-Methylphenol	50.0	43.4	87		30 - 140
Bis(2-chloroisopropyl) ether	50.0	42.7	85		40 - 140
4-Methylphenol	50.0	36.8	74		30 - 140
N-Nitrosodi-n-propylamine	50.0	37.3	75		40 - 140
Acetophenone	50.0	37.8	76		40 - 140
3-Methylphenol	50.0	36.8	74		30 - 140
Hexachloroethane	50.0	33.8	68		40 - 140
Nitrobenzene	50.0	37.7	75		40 - 140
Isophorone	50.0	33.1	66		40 - 140
2-Nitrophenol	50.0	35.5	71		30 - 140
2,4-Dimethylphenol	50.0	35.7	71		30 - 140
Bis(2-chloroethoxy) methane	50.0	37.0	74		40 - 140
Benzoic acid	50.0	65.8	132		30 - 140
2,4-Dimethylaniline	50.0	29.1	58		40 - 140
2,4-Dichlorophenol	50.0	33.9	68		30 - 140
1,2,4-Trichlorobenzene	50.0	33.0	66		40 - 140
Naphthalene	50.0	35.3	71		40 - 140
4-Chloroaniline	50.0	32.7	65		40 - 140
Hexachlorobutadiene	50.0	33.0	66		40 - 140
Caprolactam	50.0	42.7	85		40 - 140
4-Chloro-3-methylphenol	50.0	33.7	67		30 - 140
2-Methylnaphthalene	50.0	33.6	67		40 - 140
Hexachlorocyclopentadiene	50.0	8.4	17		5 - 105
2,4,6-Trichlorophenol	50.0	30.7	61		30 - 140
2,4,5-Trichlorophenol	50.0	27.9	56		30 - 140
1,1'-Biphenyl	50.0	37.0	74		40 - 140
2-Chloronaphthalene	50.0	34.2	68		40 - 140
2-Nitroaniline	50.0	40.5	81		40 - 140
Dimethyl phthalate	50.0	35.1	70		40 - 140
2,6-Dinitrotoluene	50.0	31.8	64		40 - 140
Acenaphthylene	50.0	33.3	67		40 - 140
3-Nitroaniline	50.0	32.4	65		40 - 140
Acenaphthene	50.0	35.2	70		40 - 140
2,4-Dinitrophenol	50.0	40.7	81		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130919-03
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0133.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	50.0	30.6	61		30 - 140
2,4-Dinitrotoluene	50.0	33.2	66		40 - 140
Dibenzofuran	50.0	33.5	67		40 - 140
Diethyl phthalate	50.0	34.2	68		40 - 140
Fluorene	50.0	35.5	71		40 - 140
4-Chlorophenyl phenyl ether	50.0	34.2	68		40 - 140
4-Nitroaniline	50.0	34.7	69		40 - 140
1,2,4,5-Tetrachlorobenzene	50.0	33.6	67		40 - 140
2,3,4,6-Tetrachlorophenol	50.0	29.9	60		40 - 140
4,6-Dinitro-2-methylphenol	50.0	37.3	75		10 - 110
N-Nitrosodiphenylamine	50.0	36.6	73		40 - 140
1,2-Diphenylhydrazine	50.0	35.6	71		40 - 140
4-Bromophenyl phenyl ether	50.0	34.4	69		40 - 140
Hexachlorobenzene	50.0	33.8	68		40 - 140
Atrazine	50.0	28.4	57		20 - 120
Pentachlorophenol	50.0	20.9	42		30 - 140
Phenanthrene	50.0	34.8	70		40 - 140
Anthracene	50.0	35.5	71		40 - 140
Carbazole	50.0	31.7	63		40 - 140
Di-n-butyl phthalate	50.0	36.5	73		40 - 140
Fluoranthene	50.0	30.5	61		40 - 140
Benzidine	50.0	7.1	14		5 - 105
Pyrene	50.0	45.2	90		40 - 140
3,3'-Dimethylbenzidine	50.0	12.9	26		5 - 105
Butyl benzyl phthalate	50.0	49.3	99		40 - 140
3,3'-Dichlorobenzidine	50.0	46.4	93		40 - 140
Benzo[a]anthracene	50.0	44.0	88		40 - 140
Chrysene	50.0	30.1	60		40 - 140
Bis(2-ethylhexyl) phthalate	50.0	54.8	110		40 - 140
Di-n-octyl phthalate	50.0	66.0	132		40 - 140
Benzo[b]fluoranthene	50.0	55.0	110		40 - 140
Benzo[k]fluoranthene	50.0	50.5	101		40 - 140
Benzo[a]pyrene	50.0	51.4	103		40 - 140
Indeno[1,2,3-cd]pyrene	50.0	48.3	97		40 - 140
Dibenz[a,h]anthracene	50.0	46.2	92		40 - 140
Benzo[g,h,i]perylene	50.0	45.4	91		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

E13-09196 0072

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09196-001
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
MS Data file: C0134.D
MSD Data file: C0135.D

GC/MS Column: DB-5
Sample wt/vol: 15.15g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	50.0	0.00	34.00	68		34.00	68		0		40-140/30
Pyridine	50.0	0.00	29.00	58		28.10	56		3		20-120/30
Benzaldehyde	50.0	0.00	9.90	20		10.50	21		6		10-110/30
Phenol	50.0	0.00	48.10	96		50.50	101		5		30-140/30
Aniline	50.0	0.00	20.00	40		21.00	42		5		40-140/30
Bis(2-chloroethyl) ether	50.0	0.00	39.90	80		42.60	85		7		40-140/30
2-Chlorophenol	50.0	0.00	41.40	83		42.80	86		3		30-140/30
1,3-Dichlorobenzene	50.0	0.00	40.30	81		40.30	81		0		40-140/30
1,4-Dichlorobenzene	50.0	0.00	42.60	85		43.30	87		2		40-140/30
Benzyl alcohol	50.0	0.00	41.40	83		41.80	84		1		40-140/30
1,2-Dichlorobenzene	50.0	0.00	42.00	84		41.50	83		1		40-140/30
2-Methylphenol	50.0	0.00	41.80	84		44.10	88		5		30-140/30
Bis(2-chloroisopropyl) ether	50.0	0.00	43.90	88		44.70	89		2		40-140/30
4-Methylphenol	50.0	0.00	40.90	82		42.20	84		3		30-140/30
N-Nitrosodi-n-propylamine	50.0	0.00	39.60	79		40.40	81		2		40-140/30
Acetophenone	50.0	0.00	45.10	90		46.70	93		3		40-140/30
3-Methylphenol	50.0	0.00	40.90	82		42.20	84		3		30-140/30
Hexachloroethane	50.0	0.00	40.50	81		42.00	84		4		40-140/30
Nitrobenzene	50.0	0.00	43.00	86		44.90	90		4		40-140/30
Isophorone	50.0	0.00	22.50	45		21.70	43		4		40-140/30
2-Nitrophenol	50.0	0.00	44.50	89		45.80	92		3		30-140/30
2,4-Dimethylphenol	50.0	0.00	46.00	92		46.00	92		0		30-140/30
Bis(2-chloroethoxy) methane	50.0	0.00	44.50	89		42.90	86		4		40-140/30
Benzoic acid	50.0	0.00	44.20	88		56.80	114		25		30-140/30
2,4-Dimethylaniline	50.0	0.00	20.10	40		20.10	40		0		40-140/30
2,4-Dichlorophenol	50.0	0.00	41.70	83		43.40	87		4		30-140/30
1,2,4-Trichlorobenzene	50.0	0.00	40.00	80		41.70	83		4		40-140/30
Naphthalene	50.0	0.00	40.70	81		41.00	82		1		40-140/30
4-Chloroaniline	50.0	0.00	29.80	60		31.20	62		5		40-140/30
Hexachlorobutadiene	50.0	0.00	41.90	84		44.20	88		5		40-140/30
Caprolactam	50.0	0.00	44.40	89		47.20	94		6		40-140/30
4-Chloro-3-methylphenol	50.0	0.00	37.80	76		45.40	91		18		30-140/30
2-Methylnaphthalene	50.0	1.60	38.20	73		41.80	80		9		40-140/30
Hexachlorocyclopentadiene	50.0	0.00	4.00	8		3.20	6		22		5-105/30
2,4,6-Trichlorophenol	50.0	0.00	43.60	87		41.60	83		5		30-140/30
2,4,5-Trichlorophenol	50.0	0.00	38.60	77		38.50	77		0		30-140/30
1,1'-Biphenyl	50.0	0.00	48.10	96		44.00	88		9		40-140/30
2-Chloronaphthalene	50.0	0.00	42.80	86		40.60	81		5		40-140/30
2-Nitroaniline	50.0	0.00	41.50	83		42.60	85		3		40-140/30
Dimethyl phthalate	50.0	0.00	45.50	91		43.20	86		5		40-140/30
2,6-Dinitrotoluene	50.0	0.00	39.90	80		40.40	81		1		40-140/30
Acenaphthylene	50.0	0.00	39.90	80		40.70	81		2		40-140/30
3-Nitroaniline	50.0	0.00	42.70	85		46.90	94		9		40-140/30
Acenaphthene	50.0	0.00	48.10	96		49.10	98		2		40-140/30
2,4-Dinitrophenol	50.0	0.00	32.40	65		34.90	70		7		5-105/30

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09196-001
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
MS Data file: C0134.D
MSD Data file: C0135.D

GC/MS Column: DB-5
Sample wt/vol: 15.15g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	50.0	0.00	31.80	64		32.20	64		1		30-140/30
2,4-Dinitrotoluene	50.0	0.00	43.60	87		43.70	87		0		40-140/30
Dibenzofuran	50.0	0.00	42.60	85		41.60	83		2		40-140/30
Diethyl phthalate	50.0	0.00	44.00	88		40.60	81		8		40-140/30
Fluorene	50.0	0.00	40.20	80		40.00	80		0		40-140/30
4-Chlorophenyl phenyl ether	50.0	0.00	40.70	81		40.20	80		1		40-140/30
4-Nitroaniline	50.0	0.00	30.20	60		30.30	61		0		40-140/30
1,2,4,5-Tetrachlorobenzene	50.0	0.00	44.10	88		41.20	82		7		40-140/30
2,3,4,6-Tetrachlorophenol	50.0	0.00	34.10	68		33.40	67		2		40-140/30
4,6-Dinitro-2-methylphenol	50.0	0.00	34.60	69		35.80	72		3		10-110/30
N-Nitrosodiphenylamine	50.0	0.00	46.60	93		45.20	90		3		40-140/30
1,2-Diphenylhydrazine	50.0	0.00	39.80	80		42.30	85		6		40-140/30
4-Bromophenyl phenyl ether	50.0	0.00	44.70	89		45.00	90		1		40-140/30
Hexachlorobenzene	50.0	0.00	42.20	84		44.50	89		5		40-140/30
Atrazine	50.0	0.00	13.10	26		10.90	22		18		20-120/30
Pentachlorophenol	50.0	0.00	26.80	54		29.50	59		10		30-140/30
Phenanthrene	50.0	13.50	41.80	57		50.10	73		18		40-140/30
Anthracene	50.0	1.00	41.00	80		42.10	82		3		40-140/30
Carbazole	50.0	0.00	38.20	76		39.00	78		2		40-140/30
Di-n-butyl phthalate	50.0	116.00	155.60	79		150.70	69		3		40-140/30
Fluoranthene	50.0	8.90	46.90	76		47.30	77		1		40-140/30
Benzidine	50.0	0.00	2.90	6		2.90	6		0		5-105/30
Pyrene	50.0	10.20	53.90	87		56.60	93		5		40-140/30
3,3'-Dimethylbenzidine	50.0	0.00	2.90	6		3.60	7		22		5-105/30
Butyl benzyl phthalate	50.0	0.00	61.10	122		55.50	111		10		40-140/30
3,3'-Dichlorobenzidine	50.0	0.00	50.70	101		49.90	100		2		40-140/30
Benzo[a]anthracene	50.0	5.70	56.50	102		56.00	101		1		40-140/30
Chrysene	50.0	9.40	60.40	102		60.10	101		0		40-140/30
Bis(2-ethylhexyl) phthalate	50.0	117.60	163.40	92		164.70	94		1		40-140/30
Di-n-octyl phthalate	50.0	0.00	67.60	135		69.10	138		2		40-140/30
Benzo[b]fluoranthene	50.0	0.00	69.40	139		68.40	137		1		40-140/30
Benzo[k]fluoranthene	50.0	0.00	63.60	127		67.70	135		6		40-140/30
Benzo[a]pyrene	50.0	0.00	62.40	125		62.10	124		0		40-140/30
Indeno[1,2,3-cd]pyrene	50.0	0.00	61.80	124		60.50	121		2		40-140/30
Dibenz[a,h]anthracene	50.0	0.00	62.10	124		60.00	120		3		40-140/30
Benzo[g,h,i]perylene	50.0	0.00	61.50	123		59.90	120		3		40-140/30

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C0132.D

Instrument ID: MSDC

Date Extracted: 09/19/13

Matrix: SOIL

Date Analyzed: 09/20/2013

Time Analyzed: 17:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS130919-03	09/20/2013	17:55
.	E13-09196-001MS	09/20/2013	18:11
.	E13-09196-001MSD	09/20/2013	18:28
C-1_WARE	E13-09196-001	09/20/2013	18:44
C-2_LOAD	E13-09196-002	09/20/2013	19:00
C-3_BLD_	E13-09196-003	09/20/2013	19:16
C-4_IMP.	E13-09196-004	09/20/2013	19:33
C-5_SPHI	E13-09196-005	09/20/2013	19:49
AOC-6/18	E13-09197-010	09/20/2013	20:05
PX4	E13-08977-004	09/20/2013	20:21
AOC-7-2/	E13-09197-004	09/20/2013	20:38
AOC-7-3/	E13-09197-005	09/20/2013	20:54
AOC-12-2	E13-09197-009	09/20/2013	21:10
C-2_LOAD	E13-09196-002DL	09/23/2013	11:53
C-4_IMP.	E13-09196-004	09/23/2013	12:09
C-5_SPHI	E13-09196-005DL	09/23/2013	12:25

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C9788.D

DFTPP Injection Date : 09/10/2013

Inst ID: MSDC

DFTPP Injection Time: 16:04

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	33.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	38.5	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	40.0 - 60.0% of mass 198	53.8	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.5	
275	10.0 - 30.0% of mass 198	23.2	
365	Greater than 1.0% of mass 198	1.9	
441	Present, but less than mass 443	11.74	(71.8)3
442	40.0 - 100.0% of mass 198	75.7	
443	17.0 - 23.0% of mass 442	16.4	(21.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN022.13	ICC001BNA1	C9789.D	09/10/2013	16:15
ABN024.13	ICC010BNA1	C9790.D	09/10/2013	16:31
ABN025.13	ICC020BNA1	C9791.D	09/10/2013	16:48
ABN026.13	ICC040BNA1	C9792.D	09/10/2013	17:04
ABN027.13	ICC080BNA1	C9793.D	09/10/2013	17:21
ABN028.13	ICC120BNA1	C9794.D	09/10/2013	17:37
ABN036.13	ICV040BNA1	C9795.D	09/10/2013	17:53
ABN035.13	ICC120BNA2	C9796.D	09/10/2013	18:10
ABN034.13	ICC080BNA2	C9797.D	09/10/2013	18:26
ABN033.13	ICC040BNA2	C9798.D	09/10/2013	18:42
ABN032.13	ICC020BNA2	C9799.D	09/10/2013	18:59
ABN031.13	ICC010BNA2	C9800.D	09/10/2013	19:15
ABN029.13	ICC001BNA2	C9801.D	09/10/2013	19:32
ABN037.13	ICV040BNA2	C9802.D	09/10/2013	19:48

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0110.D

DFTPP Injection Date : 09/20/2013

Inst ID: MSDC

DFTPP Injection Time: 11:47

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	47.2	
70	Less than 2.0% of mass 69	0.5	(1.0)1
127	40.0 - 60.0% of mass 198	58.4	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.0	
275	10.0 - 30.0% of mass 198	24.1	
365	Greater than 1.0% of mass 198	1.8	
441	Present, but less than mass 443	9.29	(72.1)3
442	40.0 - 100.0% of mass 198	63.8	
443	17.0 - 23.0% of mass 442	12.9	(20.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN036.13	CCV040BNA1	C0111.D	09/20/2013	11:57
ABN037.13	CCV040BNA2	C0112.D	09/20/2013	12:13
.	BLKS130919-03	C0132.D	09/20/2013	17:39
.	LCSS130919-03	C0133.D	09/20/2013	17:55
.	E13-09196-001MS	C0134.D	09/20/2013	18:11
.	E13-09196-001MSD	C0135.D	09/20/2013	18:28
C-1_WARE	E13-09196-001	C0136.D	09/20/2013	18:44
C-2_LOAD	E13-09196-002	C0137.D	09/20/2013	19:00
C-3_BLD_	E13-09196-003	C0138.D	09/20/2013	19:16
C-4_IMP.	E13-09196-004	C0139.D	09/20/2013	19:33
C-5_SPHI	E13-09196-005	C0140.D	09/20/2013	19:49
AOC-6/18	E13-09197-010	C0141.D	09/20/2013	20:05
PX4	E13-08977-004	C0142.D	09/20/2013	20:21
AOC-7-2/	E13-09197-004	C0143.D	09/20/2013	20:38
AOC-7-3/	E13-09197-005	C0144.D	09/20/2013	20:54
AOC-12-2	E13-09197-009	C0145.D	09/20/2013	21:10

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0165.D

DFTPP Injection Date : 09/23/2013

Inst ID: MSDC

DFTPP Injection Time: 11:10

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	47.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	51.3	
70	Less than 2.0% of mass 69	0.5	(1.0)1
127	40.0 - 60.0% of mass 198	59.4	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.9	
275	10.0 - 30.0% of mass 198	21.9	
365	Greater than 1.0% of mass 198	1.7	
441	Present, but less than mass 443	8.59	(73.1)3
442	40.0 - 100.0% of mass 198	56.8	
443	17.0 - 23.0% of mass 442	11.8	(20.7)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN036.13	CCV040BNA1	C0166.D	09/23/2013	11:21
ABN037.13	CCV040BNA2	C0167.D	09/23/2013	11:37
C-2_LOAD	E13-09196-002DL	C0168.D	09/23/2013	11:53
C-4_IMP.	E13-09196-004	C0169.D	09/23/2013	12:09
C-5_SPHI	E13-09196-005DL	C0170.D	09/23/2013	12:25

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS2213.M
Title : BNA CALIBRATION METHOD
Last Update : Wed Sep 11 11:43:42 2013
Response Via : Initial Calibration

Calibration Files
1 =C9789.D 10 =C9790.D 20 =C9791.D
40 =C9792.D 80 =C9793.D 120 =C9794.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.871	0.866	0.794	0.781	0.783	0.772	0.811	5.55
3)	T	Pyridine	0.899	1.051	1.030	0.950	0.932	0.884	0.957	7.15
4)	S	2-Fluorophenol	1.322	1.439	1.410	1.397	1.407	1.379	1.392	2.85
5)	T	Benzaldehyde	1.082	0.856	1.077	0.861	0.939	1.066	0.980	11.03
6)	S	Phenol-d5	1.532	1.660	1.729	1.689	1.648	1.616	1.646	4.11
7)	MC	Phenol	1.634	1.727	1.626	1.739	1.628	1.710	1.677	3.19
8)	T	Aniline	0.787	0.728	0.692	0.682	0.649	0.625	0.694	8.37
9)	T	Bis(2-chloroethyl	1.033	0.923	0.862	0.899	0.872	0.827	0.903	7.94
10)	M	2-Chlorophenol	1.773	1.523	1.473	1.496	1.505	1.537	1.551	7.14
11)	T	1,3-Dichlorobenze	1.775	1.641	1.550	1.585	1.509	1.707	1.628	6.16
12)	MC	1,4-Dichlorobenze	1.699	1.641	1.574	1.656	1.582	1.429	1.597	5.93
13)	T	Benzyl alcohol	1.090	0.977	0.964	0.989	0.927	0.988	0.989	5.52
14)	T	1,2-Dichlorobenze	1.643	1.527	1.488	1.520	1.433	1.444	1.509	5.04
15)	T	2-Methylphenol	1.052	1.297	1.259	1.250	1.206	1.194	1.210	7.09
16)	T	Bis(2-chloroisopr	1.562	1.660	1.609	1.573	1.473	1.430	1.551	5.52
17)	T	4-Methylphenol	1.537	1.390	1.337	1.431	1.284	1.344	1.387	6.40
18)	MP	N-Nitrosodi-n-pro	1.129	0.980	0.983	0.960	0.923	0.877	0.975	8.73
19)	T	Acetophenone	2.157	1.887	1.809	1.920	1.743	1.818	1.889	7.70
20)	T	3-Methylphenol	1.542	1.396	1.333	1.431	1.285	1.343	1.388	6.56
21)	T	Hexachloroethane	0.586	0.550	0.515	0.523	0.507	0.513	0.533	5.66
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.301	0.318	0.330	0.323	0.329	0.342	0.324	4.27
25)	T	Nitrobenzene	0.331	0.317	0.299	0.292	0.292	0.288	0.303	5.67
26)	T	Isophorone	0.719	0.650	0.630	0.645	0.589	0.611	0.641	6.97
27)	TC	2-Nitrophenol	0.195	0.182	0.180	0.191	0.173	0.193	0.186	4.65
28)	T	2,4-Dimethylpheno	0.365	0.328	0.323	0.324	0.315	0.321	0.329	5.44
29)	T	Bis(2-chloroethox	0.459	0.382	0.368	0.368	0.362	0.366	0.384	9.73
30)	T	Benzoic acid	0.099	0.094	0.092	0.093	0.115	0.094	0.098	8.92
31)	T	2,4-Dimethylanili	0.477	0.419	0.399	0.426	0.393	0.411	0.421	7.11
32)	TC	2,4-Dichloropheno	0.310	0.266	0.267	0.273	0.261	0.288	0.278	6.68
33)	M	1,2,4-Trichlorobe	0.328	0.299	0.300	0.306	0.283	0.305	0.304	4.78
34)	T	Naphthalene	1.236	1.142	1.079	1.068	1.015	0.994	1.089	8.16
35)	T	4-Chloroaniline	0.629	0.587	0.565	0.575	0.525	0.552	0.572	6.08
36)	T	4-Aminotoluene							0.000	-1.00
37)	TC	Hexachlorobutadie	0.173	0.154	0.149	0.154	0.147	0.155	0.155	6.15
38)	T	Caprolactam	0.110	0.130	0.125	0.121	0.110	0.117	0.119	6.75
39)	T	2-Aminotoluene							0.000	-1.00
40)	MC	4-Chloro-3-methyl	0.347	0.281	0.282	0.278	0.265	0.292	0.291	9.93
41)	T	2-Methylnaphthale	0.813	0.760	0.668	0.686	0.665	0.708	0.717	8.19
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.136	0.148	0.148	0.157	0.163	0.177	0.155	9.13
45)	TC	2,4,6-Trichloroph	0.372	0.317	0.316	0.326	0.321	0.348	0.333	6.68
46)	T	2,4,5-Trichloroph	0.405	0.342	0.350	0.366	0.354	0.385	0.367	6.56
47)	S	2-Fluorobiphenyl	1.328	1.335	1.376	1.344	1.316	1.414	1.352	2.69
48)	T	1,1'-Biphenyl	1.596	1.358	1.397	1.413	1.314	1.462	1.423	6.91
49)	T	2-Chloronaphthale	1.210	1.035	1.060	1.070	1.008	1.126	1.085	6.70
50)	T	2-Nitroaniline	0.272	0.239	0.238	0.238	0.237	0.253	0.246	5.64
51)	T	Dimethyl phthalat	1.287	1.133	1.141	1.172	1.071	1.213	1.169	6.30

52)	T	2,6-Dinitrotoluen	0.271	0.255	0.252	0.260	0.263	0.284	0.264	4.44
53)	T	Acenaphthylene	1.908	1.673	1.684	1.691	1.571	1.636	1.694	6.73
54)	T	3-Nitroaniline	0.369	0.304	0.288	0.295	0.276	0.326	0.310	10.88
55)	MC	Acenaphthene	1.329	1.125	1.099	1.112	1.094	1.090	1.141	8.13
56)	TP	2,4-Dinitrophenol	0.054	0.051	0.050	0.062	0.068	0.057	0.057	11.95
57)	MP	4-Nitrophenol	0.155	0.160	0.155	0.162	0.159	0.152	0.157	2.38
58)	M	2,4-Dinitrotoluen	0.306	0.285	0.296	0.321	0.328	0.346	0.314	7.08
59)	T	Dibenzofuran	1.703	1.485	1.490	1.506	1.451	1.585	1.537	6.03
60)	T	Diethyl phthalate	1.310	1.090	1.087	1.121	1.038	1.189	1.139	8.54
61)	T	Fluorene	1.418	1.230	1.224	1.232	1.172	1.307	1.264	6.87
62)	T	4-Chlorophenyl ph	0.662	0.556	0.562	0.560	0.560	0.605	0.584	7.23
63)	T	4-Nitroaniline	0.319	0.294	0.304	0.312	0.318	0.323	0.311	3.47
64)		1,2,4,5-Tetrachlo	0.630	0.512	0.515	0.538	0.512	0.564	0.545	8.46
65)	T	2,3,4,6-Tetrachlo	0.256	0.252	0.266	0.260	0.274	0.284	0.265	4.54
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.064	0.060	0.070	0.066	0.074	0.085	0.070	12.79
68)	TC	N-Nitrosodiphenyl	0.605	0.544	0.537	0.564	0.578	0.563	0.565	4.35
69)	T	1,2-Diphenylhydra	0.874	0.804	0.771	0.815	0.792	0.802	0.810	4.30
70)	S	2,4,6-Tribromophe	0.129	0.128	0.126	0.127	0.125	0.132	0.128	2.11
71)	T	4-Bromophenyl phe	0.241	0.211	0.202	0.210	0.211	0.222	0.216	6.32
72)	T	Hexachlorobenzene	0.272	0.228	0.220	0.232	0.234	0.252	0.240	7.99
73)	T	Atrazine	0.216	0.206	0.199	0.206	0.205	0.211	0.207	2.83
74)	MC	Pentachlorophenol	0.113	0.134	0.133	0.140	0.143	0.154	0.136	10.10
75)	T	Phenanthrene	1.287	1.056	1.013	1.040	1.042	1.057	1.083	9.38
76)	T	Anthracene	1.223	1.072	1.020	1.072	1.052	1.097	1.089	6.47
77)	T	Carbazole	1.195	1.042	0.993	1.001	0.982	1.006	1.037	7.75
78)	T	Di-n-butyl phthal	1.328	1.193	1.135	1.191	1.178	1.194	1.203	5.42
79)	TC	Fluoranthene	1.347	1.146	1.091	1.112	1.071	1.097	1.144	8.97
80)	T	Benzidine	0.636	0.662	0.812	0.715	0.831	0.697	0.725	10.98
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.487	1.237	1.230	1.292	1.308	1.540	1.349	9.80
84)	S	Terphenyl-d14	0.963	0.997	1.018	1.050	1.076	1.257	1.060	9.83
85)	T	3,3'-Dimethylbenz	1.110	0.829	1.062	0.952	1.083	1.063	1.016	10.47
86)	T	Butyl benzyl phth	0.588	0.517	0.512	0.548	0.545	0.606	0.553	6.78
87)	T	3,3'-Dichlorobenz	0.354	0.386	0.369	0.364	0.328	0.277	0.346	11.22
88)	T	Benzo[a]anthracen	1.262	1.044	1.008	1.048	1.013	1.105	1.080	8.85
89)	T	Chrysene	1.194	1.008	0.985	1.014	0.990	1.029	1.037	7.61
90)	T	Bis(2-ethylhexyl)	0.722	0.673	0.667	0.724	0.735	0.842	0.727	8.64
91)	T	3,3'-Dimethoxyben							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.768	1.763	1.825	1.835	1.633	1.990	1.802	6.48
94)	T	Benzo[b]fluoranth	1.639	1.539	1.587	1.597	1.581	1.753	1.616	4.59
95)	T	Benzo[k]fluoranth	1.475	1.546	1.507	1.421	1.483	1.522	1.492	2.90
96)	TC	Benzo[a]pyrene	1.616	1.432	1.371	1.442	1.414	1.489	1.461	5.83
97)	T	Indeno[1,2,3-cd]p	1.695	1.492	1.647	1.816	1.795	1.878	1.720	8.13
98)	T	Dibenz[a,h]anthra	1.346	1.226	1.315	1.488	1.486	1.574	1.406	9.31
99)	T	Benzo[g,h,i]peryl	1.424	1.300	1.374	1.514	1.507	1.578	1.449	7.08

(#) = Out of Range

CS2213.M Wed Sep 11 11:45:13 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-10-13\
Data File : C9795.D
Acq On : 10 Sep 2013 17:53
Operator : EDM
Sample : ABN036.13,ICV040BNA1,S,30.0g,0.0.5
Misc : NA,09/10/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 10 18:10:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Sep 10 18:08:15 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
2	T	N-Nitrosodimethylamine	0.811	0.774	4.6	107	-0.01
3	T	Pyridine	0.957	0.977	-2.1	111	0.00
4	S	2-Fluorophenol	1.392	1.393	-0.1	108	0.00
5	T	Benzaldehyde	0.980	0.866	11.6	113	0.00
6	S	Phenol-d5	1.646	1.634	0.7	105	0.00
7	MC	Phenol	1.677	1.614	3.8	100	0.00
8	T	Aniline	0.694	0.623	10.2	99	0.00
9	T	Bis(2-chloroethyl) ether	0.903	0.817	9.5	98	0.00
10	M	2-Chlorophenol	1.551	1.469	5.3	106	0.00
11	T	1,3-Dichlorobenzene	1.628	1.596	2.0	109	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.582	0.9	103	0.00
13	T	Benzyl alcohol	0.989	0.946	4.3	103	0.00
14	T	1,2-Dichlorobenzene	1.509	1.503	0.4	107	0.00
15	T	2-Methylphenol	1.210	1.199	0.9	104	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.456	6.1	100	0.00
17	T	4-Methylphenol	1.387	1.364	1.7	103	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	0.893	8.4	101	-0.01
19	T	Acetophenone	1.889	1.841	2.5	104	0.00
20	T	3-Methylphenol	1.388	1.362	1.9	103	0.00
21	T	Hexachloroethane	0.533	0.508	4.7	105	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	109	0.00
24	S	Nitrobenzene-d5	0.324	0.302	6.8	102	0.00
25	T	Nitrobenzene	0.303	0.283	6.6	105	0.00
26	T	Isophorone	0.641	0.596	7.0	100	-0.01
27	TC	2-Nitrophenol	0.186	0.185	0.5	105	0.00
28	T	2,4-Dimethylphenol	0.329	0.314	4.6	105	0.00
29	T	Bis(2-chloroethoxy) methane	0.384	0.363	5.5	107	0.00
30	T	Benzoic acid	0.098	0.088	10.2	102	-0.02
31	T	2,4-Dimethylaniline	0.421	0.350	16.9	89	0.00
32	TC	2,4-Dichlorophenol	0.278	0.268	3.6	107	-0.01
33	M	1,2,4-Trichlorobenzene	0.304	0.305	-0.3	108	0.00
34	T	Naphthalene	1.089	1.042	4.3	106	0.00
35	T	4-Chloroaniline	0.572	0.530	7.3	100	0.00
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.161	-3.9	113	0.00
38	T	Caprolactam	0.119	0.117	1.7	104	-0.02
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.273	6.2	107	-0.01
41	T	2-Methylnaphthalene	0.717	0.678	5.4	108	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00
44	TP	Hexachlorocyclopentadiene	0.155	0.139	10.3	96	0.00
45	TC	2,4,6-Trichlorophenol	0.333	0.367	-10.2	122	0.02

46	T	2,4,5-Trichlorophenol	0.367	0.370	-0.8	109	0.00
47	S	2-Fluorobiphenyl	1.352	1.335	1.3	108	0.00
48	T	1,1'-Biphenyl	1.423	1.415	0.6	108	0.00
49	T	2-Chloronaphthalene	1.085	1.069	1.5	108	0.00
50	T	2-Nitroaniline	0.246	0.238	3.3	108	0.00
51	T	Dimethyl phthalate	1.169	1.182	-1.1	109	0.00
52	T	2,6-Dinitrotoluene	0.264	0.280	-6.1	116	0.00
53	T	Acenaphthylene	1.694	1.681	0.8	108	0.00
54	T	3-Nitroaniline	0.310	0.295	4.8	108	-0.01
55	MC	Acenaphthene	1.141	1.110	2.7	108	0.00
56	TP	2,4-Dinitrophenol	0.057	0.061	-7.0	106	0.00
57	MP	4-Nitrophenol	0.157	0.161	-2.5	107	0.00
58	M	2,4-Dinitrotoluene	0.314	0.331	-5.4	112	0.00
59	T	Dibenzofuran	1.537	1.528	0.6	110	0.00
60	T	Diethyl phthalate	1.139	1.127	1.1	109	0.00
61	T	Fluorene	1.264	1.275	-0.9	112	0.00
62	T	4-Chlorophenyl phenyl ether	0.584	0.589	-0.9	114	0.00
63	T	4-Nitroaniline	0.311	0.319	-2.6	111	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.545	0.530	2.8	107	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.282	-6.4	117	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00
67	T	4,6-Dinitro-2-methylphenol	0.070	0.076	-8.6	127	-0.01
68	TC	N-Nitrosodiphenylamine	0.565	0.565	0.0	111	0.00
69	T	1,2-Diphenylhydrazine	0.810	0.775	4.3	106	0.00
70	S	2,4,6-Tribromophenol	0.128	0.130	-1.6	114	0.00
71	T	4-Bromophenyl phenyl ether	0.216	0.215	0.5	114	0.00
72	T	Hexachlorobenzene	0.240	0.237	1.3	114	0.00
73	T	Atrazine	0.207	0.183	11.6	99	-0.01
74	MC	Pentachlorophenol	0.136	0.145	-6.6	116	0.00
75	T	Phenanthrene	1.083	1.057	2.4	113	0.00
76	T	Anthracene	1.089	1.064	2.3	110	0.00
77	T	Carbazole	1.037	1.054	-1.6	117	0.00
78	T	Di-n-butyl phthalate	1.203	1.219	-1.3	114	0.00
79	TC	Fluoranthene	1.144	1.162	-1.6	116	0.00
80	T	Benzidine	0.725	0.625	13.8	108	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	123	0.00
83	M	Pyrene	1.349	1.271	5.8	121	0.00
84	S	Terphenyl-d14	1.060	1.040	1.9	122	0.00
85	T	3,3'-Dimethylbenzidine	1.016	0.818	19.5	121	0.02
86	T	Butyl benzyl phthalate	0.553	0.530	4.2	119	0.01
87	T	3,3'-Dichlorobenzidine	0.346	0.363	-4.9	123	0.00
88	T	Benzo[a]anthracene	1.080	1.088	-0.7	128	0.00
89	T	Chrysene	1.037	1.006	3.0	122	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.726	0.1	124	0.00
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	119	0.00
93	TC	Di-n-octyl phthalate	1.802	1.962	-8.9	128	0.00
94	T	Benzo[b]fluoranthene	1.616	1.595	1.3	119	-0.01
95	T	Benzo[k]fluoranthene	1.492	1.634	-9.5	137	-0.01
96	TC	Benzo[a]pyrene	1.461	1.422	2.7	118	-0.02
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.712	0.5	113	-0.05
98	T	Dibenz[a,h]anthracene	1.406	1.453	-3.3	117	-0.04
99	T	Benzo[g,h,i]perylene	1.449	1.437	0.8	113	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Wed Sep 11 11:40:33 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\
Data File : C0111.D
Acq On : 20 Sep 2013 11:57
Operator : EDM
Sample : ABN036.13,CCV040BNA1
Misc : NA,09/20/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 20 12:42:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	79	0.00
2	T	N-Nitrosodimethylamine	0.811	0.656	19.1	66	-0.02
3	T	Pyridine	0.957	0.775	19.0	65	-0.01
4	S	2-Fluorophenol	1.392	1.341	3.7	76	0.00
5	T	Benzaldehyde	0.980	0.861	12.1	95	0.00
6	S	Phenol-d5	1.646	1.645	0.1	77	0.00
7	MC	Phenol	1.677	1.613	3.8	73	0.00
8	T	Aniline	0.694	0.652	6.1	76	0.00
9	T	Bis(2-chloroethyl) ether	0.903	0.893	1.1	79	-0.01
10	M	2-Chlorophenol	1.551	1.550	0.1	82	0.00
11	T	1,3-Dichlorobenzene	1.628	1.526	6.3	76	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.621	-1.5	77	0.00
13	T	Benzyl alcohol	0.989	0.906	8.4	73	0.00
14	T	1,2-Dichlorobenzene	1.509	1.475	2.3	77	0.00
15	T	2-Methylphenol	1.210	1.285	-6.2	81	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.573	-1.4	79	-0.01
17	T	4-Methylphenol	1.387	1.333	3.9	74	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	0.958	1.7	79	-0.02
19	T	Acetophenone	1.889	1.873	0.8	77	-0.01
20	T	3-Methylphenol	1.388	1.338	3.6	74	0.00
21	T	Hexachloroethane	0.533	0.522	2.1	79	-0.01
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	84	0.00
24	S	Nitrobenzene-d5	0.324	0.320	1.2	83	-0.01
25	T	Nitrobenzene	0.303	0.305	-0.7	87	0.00
26	T	Isophorone	0.641	0.632	1.4	82	-0.02
27	TC	2-Nitrophenol	0.186	0.194	-4.3	85	0.00
28	T	2,4-Dimethylphenol	0.329	0.312	5.2	80	-0.01
29	T	Bis(2-chloroethoxy) methane	0.384	0.378	1.6	86	-0.01
30	T	Benzoic acid	0.098	0.097	1.0	87	-0.02
31	T	2,4-Dimethylaniline	0.421	0.381	9.5	75	-0.01
32	TC	2,4-Dichlorophenol	0.278	0.260	6.5	80	-0.01
33	M	1,2,4-Trichlorobenzene	0.304	0.292	3.9	80	0.00
34	T	Naphthalene	1.089	1.026	5.8	80	-0.01
35	T	4-Chloroaniline	0.572	0.553	3.3	80	-0.01
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.147	5.2	80	-0.01
38	T	Caprolactam	0.119	0.132	-10.9	91	-0.03
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.284	2.4	85	-0.01
41	T	2-Methylnaphthalene	0.717	0.674	6.0	82	-0.01
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	81	-0.01
44	TP	Hexachlorocyclopentadiene	0.155	0.151	2.6	78	-0.01
45	TC	2,4,6-Trichlorophenol	0.333	0.319	4.2	79	0.00

46	T	2,4,5-Trichlorophenol	0.367	0.367	0.0	81	-0.01
47	S	2-Fluorobiphenyl	1.352	1.348	0.3	81	-0.01
48	T	1,1'-Biphenyl	1.423	1.441	-1.3	83	-0.02
49	T	2-Chloronaphthalene	1.085	1.048	3.4	80	-0.02
50	T	2-Nitroaniline	0.246	0.276	-12.2	94	-0.02
51	T	Dimethyl phthalate	1.169	1.129	3.4	78	-0.02
52	T	2,6-Dinitrotoluene	0.264	0.269	-1.9	84	-0.02
53	T	Acenaphthylene	1.694	1.651	2.5	79	-0.02
54	T	3-Nitroaniline	0.310	0.304	1.9	84	-0.02
55	MC	Acenaphthene	1.141	1.146	-0.4	84	-0.02
56	TP	2,4-Dinitrophenol	0.057	0.056	1.8	72	-0.01
57	MP	4-Nitrophenol	0.157	0.151	3.8	76	-0.01
58	M	2,4-Dinitrotoluene	0.314	0.329	-4.8	83	-0.02
59	T	Dibenzofuran	1.537	1.478	3.8	80	-0.02
60	T	Diethyl phthalate	1.139	1.126	1.1	82	-0.03
61	T	Fluorene	1.264	1.264	0.0	83	-0.02
62	T	4-Chlorophenyl phenyl ether	0.584	0.562	3.8	81	-0.02
63	T	4-Nitroaniline	0.311	0.328	-5.5	85	-0.03
64		1,2,4,5-Tetrachlorobenzene	0.545	0.538	1.3	81	-0.01
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.232	12.5	72	-0.02
66	I	Phenanthrene-d10	1.000	1.000	0.0	80	-0.02
67	T	4,6-Dinitro-2-methylphenol	0.070	0.083	-18.6	100	-0.03
68	TC	N-Nitrosodiphenylamine	0.565	0.575	-1.8	81	-0.03
69	T	1,2-Diphenylhydrazine	0.810	0.866	-6.9	85	-0.03
70	S	2,4,6-Tribromophenol	0.128	0.127	0.8	80	-0.02
71	T	4-Bromophenyl phenyl ether	0.216	0.212	1.9	81	-0.02
72	T	Hexachlorobenzene	0.240	0.236	1.7	81	-0.02
73	T	Atrazine	0.207	0.194	6.3	75	-0.03
74	MC	Pentachlorophenol	0.136	0.121	11.0	69	-0.02
75	T	Phenanthrene	1.083	1.063	1.8	82	-0.02
76	T	Anthracene	1.089	1.101	-1.1	82	-0.03
77	T	Carbazole	1.037	1.024	1.3	82	-0.02
78	T	Di-n-butyl phthalate	1.203	1.235	-2.7	83	-0.03
79	TC	Fluoranthene	1.144	1.135	0.8	82	-0.03
80	T	Benzidine	0.725	0.669	7.7	90	-0.07
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	82	-0.02
83	M	Pyrene	1.349	1.312	2.7	83	-0.04
84	S	Terphenyl-d14	1.060	1.069	-0.8	83	-0.04
85	T	3,3'-Dimethylbenzidine	1.016	0.868	14.6	93	-0.08
86	T	Butyl benzyl phthalate	0.553	0.573	-3.6	85	-0.03
87	T	3,3'-Dichlorobenzidine	0.346	0.400	-15.6	90	-0.02
88	T	Benzo[a]anthracene	1.080	1.089	-0.8	85	-0.02
89	T	Chrysene	1.037	1.032	0.5	83	-0.02
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.803	-10.5	91	-0.03
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	98	-0.02
93	TC	Di-n-octyl phthalate	1.802	2.141	-18.8	115	-0.03
94	T	Benzo[b]fluoranthene	1.616	1.651	-2.2	102	-0.03
95	T	Benzo[k]fluoranthene	1.492	1.603	-7.4	111	-0.03
96	TC	Benzo[a]pyrene	1.461	1.494	-2.3	102	-0.03
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.909	-11.0	104	-0.03
98	T	Dibenz[a,h]anthracene	1.406	1.588	-12.9	105	-0.03
99	T	Benzo[g,h,i]perylene	1.449	1.565	-8.0	102	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Fri Sep 20 12:42:53 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0166.D
Acq On : 23 Sep 2013 11:21
Operator : EDM
Sample : ABN036.13,CCV040BNA1
Misc : NA,09/23/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 23 11:35:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	71	-0.01
2	T	N-Nitrosodimethylamine	0.811	0.816	-0.6	74	-0.02
3	T	Pyridine	0.957	1.082	-13.1	81	-0.01
4	S	2-Fluorophenol	1.392	1.378	1.0	70	0.00
5	T	Benzaldehyde	0.980	0.905	7.7	115	0.00
6	S	Phenol-d5	1.646	1.747	-6.1	73	-0.01
7	MC	Phenol	1.677	1.800	-7.3	73	-0.01
8	T	Aniline	0.694	0.736	-6.1	76	-0.01
9	T	Bis(2-chloroethyl) ether	0.903	1.021	-13.1	80	-0.01
10	M	2-Chlorophenol	1.551	1.527	1.5	72	0.00
11	T	1,3-Dichlorobenzene	1.628	1.563	4.0	70	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.599	-0.1	68	0.00
13	T	Benzyl alcohol	0.989	0.890	10.0	64	-0.01
14	T	1,2-Dichlorobenzene	1.509	1.506	0.2	70	0.00
15	T	2-Methylphenol	1.210	1.373	-13.5	78	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.695	-9.3	76	-0.01
17	T	4-Methylphenol	1.387	1.377	0.7	68	-0.01
18	MP	N-Nitrosodi-n-propylamine	0.975	1.121	-15.0	83	-0.02
19	T	Acetophenone	1.889	1.972	-4.4	73	-0.01
20	T	3-Methylphenol	1.388	1.406	-1.3	70	-0.01
21	T	Hexachloroethane	0.533	0.555	-4.1	75	-0.01
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	73	-0.01
24	S	Nitrobenzene-d5	0.324	0.353	-9.0	80	-0.01
25	T	Nitrobenzene	0.303	0.313	-3.3	78	-0.01
26	T	Isophorone	0.641	0.680	-6.1	77	-0.02
27	TC	2-Nitrophenol	0.186	0.185	0.5	71	-0.01
28	T	2,4-Dimethylphenol	0.329	0.328	0.3	74	-0.01
29	T	Bis(2-chloroethoxy) methane	0.384	0.378	1.6	75	-0.01
30	T	Benzoic acid	0.098	0.094	4.1	74	-0.03
31	T	2,4-Dimethylaniline	0.421	0.384	8.8	66	-0.02
32	TC	2,4-Dichlorophenol	0.278	0.255	8.3	68	-0.01
33	M	1,2,4-Trichlorobenzene	0.304	0.282	7.2	67	-0.01
34	T	Naphthalene	1.089	1.063	2.4	73	-0.01
35	T	4-Chloroaniline	0.572	0.540	5.6	69	-0.01
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.141	9.0	67	-0.01
38	T	Caprolactam	0.119	0.137	-15.1	83	-0.04
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.286	1.7	75	-0.02
41	T	2-Methylnaphthalene	0.717	0.675	5.9	72	-0.02
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	69	-0.03
44	TP	Hexachlorocyclopentadiene	0.155	0.134	13.5	59	-0.02
45	TC	2,4,6-Trichlorophenol	0.333	0.319	4.2	68	-0.02

46	T	2,4,5-Trichlorophenol	0.367	0.360	1.9	68	-0.02
47	S	2-Fluorobiphenyl	1.352	1.369	-1.3	70	-0.02
48	T	1,1'-Biphenyl	1.423	1.442	-1.3	70	-0.03
49	T	2-Chloronaphthalene	1.085	1.058	2.5	68	-0.03
50	T	2-Nitroaniline	0.246	0.291	-18.3	84	-0.03
51	T	Dimethyl phthalate	1.169	1.127	3.6	66	-0.03
52	T	2,6-Dinitrotoluene	0.264	0.259	1.9	69	-0.03
53	T	Acenaphthylene	1.694	1.697	-0.2	69	-0.03
54	T	3-Nitroaniline	0.310	0.305	1.6	71	-0.03
55	MC	Acenaphthene	1.141	1.143	-0.2	71	-0.03
56	TP	2,4-Dinitrophenol	0.057	0.055	3.5	61	-0.02
57	MP	4-Nitrophenol	0.157	0.158	-0.6	67	-0.03
58	M	2,4-Dinitrotoluene	0.314	0.308	1.9	66	-0.03
59	T	Dibenzofuran	1.537	1.459	5.1	67	-0.03
60	T	Diethyl phthalate	1.139	1.135	0.4	70	-0.04
61	T	Fluorene	1.264	1.229	2.8	69	-0.04
62	T	4-Chlorophenyl phenyl ether	0.584	0.540	7.5	67	-0.04
63	T	4-Nitroaniline	0.311	0.310	0.3	69	-0.04
64		1,2,4,5-Tetrachlorobenzene	0.545	0.518	5.0	66	-0.02
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.226	14.7	60	-0.03
66	I	Phenanthrene-d10	1.000	1.000	0.0	64	-0.05
67	T	4,6-Dinitro-2-methylphenol	0.070	0.071	-1.4	69	-0.04
68	TC	N-Nitrosodiphenylamine	0.565	0.598	-5.8	68	-0.04
69	T	1,2-Diphenylhydrazine	0.810	0.933	-15.2	74	-0.04
70	S	2,4,6-Tribromophenol	0.128	0.122	4.7	62	-0.04
71	T	4-Bromophenyl phenyl ether	0.216	0.213	1.4	65	-0.04
72	T	Hexachlorobenzene	0.240	0.234	2.5	65	-0.05
73	T	Atrazine	0.207	0.193	6.8	60	-0.06
74	MC	Pentachlorophenol	0.136	0.113	16.9	52	-0.05
75	T	Phenanthrene	1.083	1.043	3.7	65	-0.05
76	T	Anthracene	1.089	1.049	3.7	63	-0.06
77	T	Carbazole	1.037	0.978	5.7	63	-0.05
78	T	Di-n-butyl phthalate	1.203	1.236	-2.7	67	-0.06
79	TC	Fluoranthene	1.144	1.030	10.0	60	-0.07
80	T	Benzidine	0.725	0.594	18.1	93	-0.07
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	73	-0.06
83	M	Pyrene	1.349	1.084	19.6	62	-0.09
84	S	Terphenyl-d14	1.060	0.853	19.5	59	-0.09
85	T	3,3'-Dimethylbenzidine	1.016	0.833	18.0	88	-0.07
86	T	Butyl benzyl phthalate	0.553	0.592	-7.1	79	-0.09
87	T	3,3'-Dichlorobenzidine	0.346	0.393	-13.6	79	-0.06
88	T	Benzo[a]anthracene	1.080	1.071	0.8	75	-0.06
89	T	Chrysene	1.037	1.031	0.6	75	-0.06
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.825	-13.5	84	-0.07
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	75	-0.05
93	TC	Di-n-octyl phthalate	1.802	2.143	-18.9	88	-0.07
94	T	Benzo[b]fluoranthene	1.616	1.593	1.4	75	-0.06
95	T	Benzo[k]fluoranthene	1.492	1.674	-12.2	88	-0.07
96	TC	Benzo[a]pyrene	1.461	1.502	-2.8	78	-0.06
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.780	-3.5	74	-0.06
98	T	Dibenz[a,h]anthracene	1.406	1.477	-5.0	74	-0.06
99	T	Benzo[g,h,i]perylene	1.449	1.439	0.7	71	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Mon Sep 23 12:06:12 2013 RPT1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C9789.D

Date Analyzed: 09/10/2013

Instrument ID: MSDC

Time Analyzed: 16:15

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	179741	2.47	725778	3.01	438920	3.82
	UPPER LIMIT	359482	2.97	1451556	3.51	877840	4.32
	LOWER LIMIT	89871	1.97	362889	2.51	219460	3.32
	LAB SAMPLE ID						
01	ICC010BNA1	161882	2.47	681271	3.01	421822	3.83
02	ICC020BNA1	156644	2.47	653348	3.01	394358	3.83
03	ICC040BNA1	160435	2.47	672033	3.02	403704	3.83
04	ICC080BNA1	158024	2.47	669950	3.02	388351	3.83
05	ICC120BNA1	193539	2.47	819268	3.02	487199	3.86
06	ICV040BNA1	173317	2.47	730510	3.02	436870	3.86
07	ICC120BNA2	260276	2.47	1083469	3.02	682879	3.85
08	ICC080BNA2	188485	2.47	800384	3.02	495291	3.85
09	ICC040BNA2	152311	2.47	622754	3.02	394375	3.86
10	ICC020BNA2	184332	2.47	774768	3.02	477898	3.85
11	ICC010BNA2	152062	2.47	613992	3.01	389563	3.84
12	ICC001BNA2	196074	2.47	845804	3.02	509866	3.85
13	ICV040BNA2	180144	2.47	739863	3.02	465174	3.86
14							
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21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C9789.D

Date Analyzed: 09/10/2013

Instrument ID: MSDC

Time Analyzed: 16:15

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	699175	4.57	644442	6.34	366137	7.67
	UPPER LIMIT	1398350	5.07	1288884	6.84	732274	8.17
	LOWER LIMIT	349588	4.07	322221	5.84	183069	7.17
	LAB SAMPLE ID						
01	ICC010BNA1	662720	4.58	616112	6.34	343676	7.69
02	ICC020BNA1	642175	4.58	571945	6.35	315367	7.69
03	ICC040BNA1	632590	4.58	540119	6.34	309196	7.68
04	ICC080BNA1	579365	4.58	469906	6.35	301109	7.69
05	ICC120BNA1	764913	4.65	532829	6.44	307472	7.78
06	ICV040BNA1	703761	4.65	666910	6.44	369311	7.77
07	ICC120BNA2	1117545	4.64	1024951	6.42	540415	7.76
08	ICC080BNA2	835315	4.62	781250	6.41	405714	7.74
09	ICC040BNA2	656626	4.66	679644	6.45	389302	7.78
10	ICC020BNA2	784214	4.63	819581	6.42	456449	7.76
11	ICC010BNA2	663751	4.61	675768	6.38	396104	7.71
12	ICC001BNA2	852863	4.63	836205	6.41	469598	7.75
13	ICV040BNA2	779700	4.65	761975	6.44	419081	7.77
14							
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22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0112.D

Date Analyzed: 09/20/2013

Instrument ID: MSDC

Time Analyzed: 12:13

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	152964		2.47		624688		3.01		375924		3.83	
	UPPER LIMIT	305928		2.97		1249376		3.51		751848		4.33	
	LOWER LIMIT	76482		1.97		312344		2.51		187962		3.33	
	LAB SAMPLE ID												
01	CCV040BNA1	126920		2.47		561405		3.02		327944		3.85	
02	BLKS130919-03	199214		2.46		856700		3.01		540546		3.82	
03	LCSS130919-03	229777		2.46		944667		3.01		532060		3.82	
04	E13-09196-001MS	257923		2.46		1082404		3.01		528034		3.83	
05	E13-09196-001MSD	218552		2.47		903734		3.01		528237		3.82	
06	E13-09196-001	279062		2.46		1172732		3.01		638081		3.81	
07	E13-09196-002	211548		2.46		884805		3.01		458530		3.80	
08	E13-09196-003	250810		2.46		1027273		3.01		518233		3.80	
09	E13-09196-004	246934		2.46		1076462		3.01		639231		3.81	
10	E13-09196-005	266891		2.47		1043636		3.01		519739		3.81	
11	E13-09197-010	257134		2.47		1216782		3.02		685886		3.85	
12	E13-08977-004	225382		2.47		980316		3.01		492145		3.82	
13	E13-09197-004	208939		2.47		837753		3.01		457083		3.81	
14	E13-09197-005	257207		2.47		1032506		3.01		528735		3.81	
15	E13-09197-009	237880		2.47		1074381		3.01		615996		3.84	
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0112.D

Date Analyzed: 09/20/2013

Instrument ID: MSDC

Time Analyzed: 12:13

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	605134		4.60		549811		6.37		324832		7.73	
	UPPER LIMIT	1210268		5.10		1099622		6.87		649664		8.23	
	LOWER LIMIT	302567		4.10		274906		5.87		162416		7.23	
	LAB SAMPLE ID												
01	CCV040BNA1	505558		4.63		441103		6.42		304544		7.76	
02	BLKS130919-03	868530		4.58		579706		6.34		266047		7.69	
03	LCSS130919-03	792551		4.57		465543		6.33		225349		7.70	
04	E13-09196-001MS	698388		4.58		515776		6.36		299184		7.74	
05	E13-09196-001MSD	706295		4.57		544141		6.35		305950		7.73	
06	E13-09196-001	752676		4.55		483500		6.32		280730		7.69	
07	E13-09196-002	735528		4.54		606737		6.31		311081		7.70	
08	E13-09196-003	721180		4.55		790310		6.34		400842		7.76	
09	E13-09196-004	993580		4.56		5180*		6.29		3922*		7.60	
10	E13-09196-005	845633		4.55		652812		6.35		433446		7.79	
11	E13-09197-010	866666		4.64		477789		6.43		281655		7.80	
12	E13-08977-004	657597		4.56		484543		6.32		297874		7.68	
13	E13-09197-004	740860		4.56		765186		6.34		309854		7.75	
14	E13-09197-005	747508		4.55		669465		6.31		284830		7.74	
15	E13-09197-009	947470		4.62		591821		6.41		356376		7.76	
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0166.D

Date Analyzed: 09/23/2013

Instrument ID: MSDC

Time Analyzed: 11:21

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	113563		2.46		492353		3.01		278649		3.83	
	UPPER LIMIT	227126		2.96		984706		3.51		557298		4.33	
	LOWER LIMIT	56782		1.96		246177		2.51		139325		3.33	
	LAB SAMPLE ID												
01	CCV040BNA2	175259		2.47		761246		3.01		454054		3.83	
02	E13-09196-002DL	166125		2.47		882162		3.01		508150		3.83	
03	E13-09196-004	201545		2.46		820422		3.01		549425		3.82	
04	E13-09196-005DL	127775		2.46		533645		3.01		280512		3.83	
05													
06													
07													
08													
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17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0166.D

Date Analyzed: 09/23/2013

Instrument ID: MSDC

Time Analyzed: 11:21

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	407078	4.60	395791	6.37	231824	7.73
	UPPER LIMIT	814156	5.10	791582	6.87	463648	8.23
	LOWER LIMIT	203539	4.10	197896	5.87	115912	7.23
	LAB SAMPLE ID						
01	CCV040BNA2	707140	4.60	543143	6.38	287668	7.72
02	E13-09196-002DL	669011	4.61	394687	6.38	219378	7.75
03	E13-09196-004	801154	4.57	517816	6.35	266789	7.73
04	E13-09196-005DL	401460	4.60	265992	6.38	267252	7.77
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 23 10:26:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

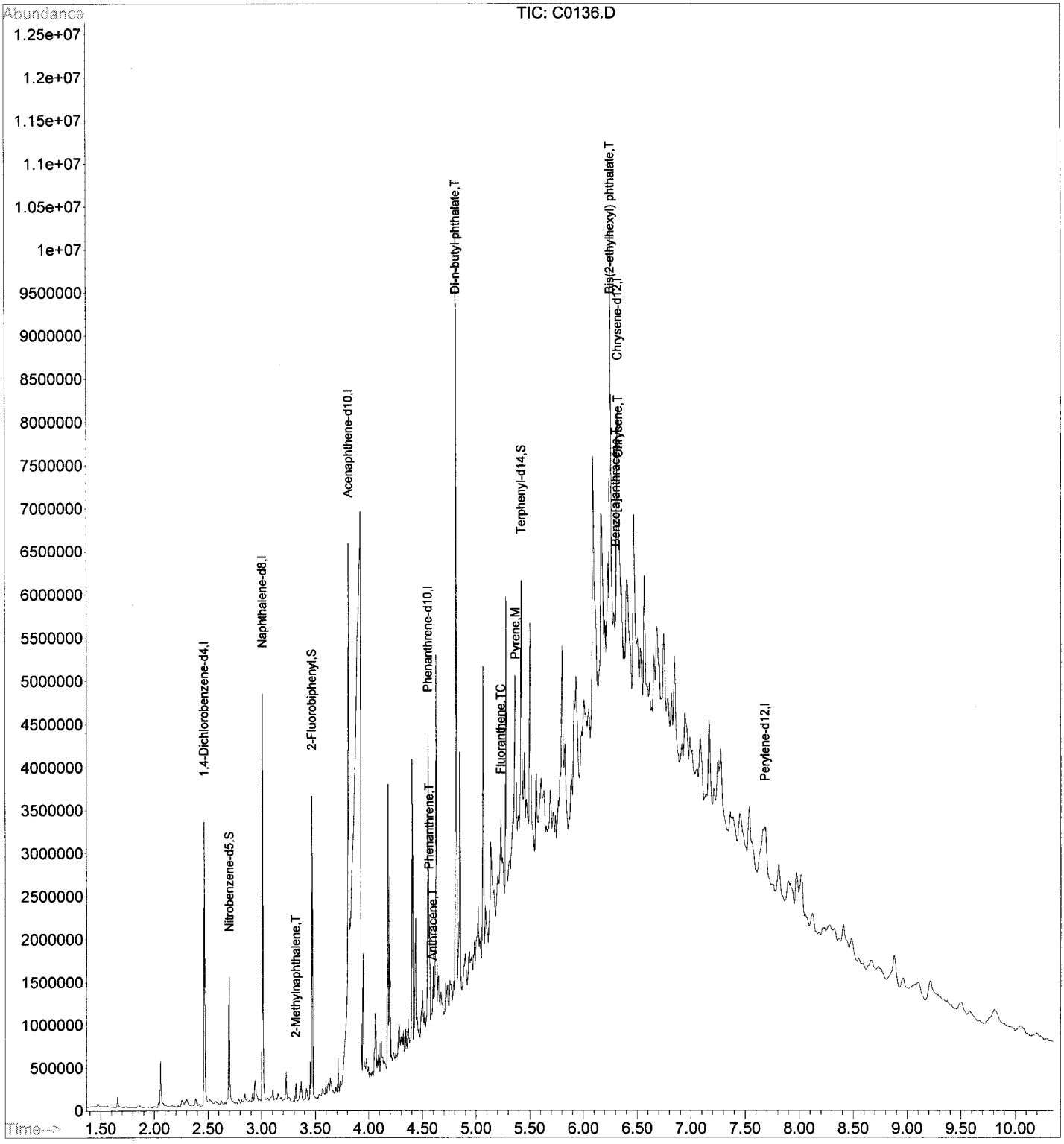
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.46	152	279062	40.00	UG	-0.01
23) Naphthalene-d8	3.01	136	1172732	40.00	UG	-0.02
43) Acenaphthene-d10	3.81	164	638081	40.00	UG	-0.05
66) Phenanthrene-d10	4.55	188	752676m	40.00	UG	-0.10
82) Chrysene-d12	6.32	240	483500m	40.00	UG	-0.12
92) Perylene-d12	7.69	264	280730	40.00	UG	-0.09
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.70	82	308993	32.56	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery =	65.12%		
47) 2-Fluorobiphenyl	3.47	172	689876	31.98	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery =	63.96%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery =	0.00%#		
84) Terphenyl-d14	5.42	244	474292m	37.01	UG	-0.18
Spiked Amount 50.000	Range 15 - 122		Recovery =	74.02%		
Target Compounds						Qvalue
41) 2-Methylnaphthalene	3.32	142	33236	1.58	UG	100
75) Phenanthrene	4.56	178	274113	13.46	UG	99
76) Anthracene	4.59	178	20962m	1.02	UG	
78) Di-n-butyl phthalate	4.81	149	2631768m	116.25	UG	
79) Fluoranthene	5.23	202	190849m	8.87	UG	
83) Pyrene	5.37	202	166226m	10.19	UG	
88) Benzo[a]anthracene	6.30	228	74787m	5.73	UG	
89) Chrysene	6.33	228	117818m	9.40	UG	
90) Bis(2-ethylhexyl) phthalat	6.25	149	1033151m	117.57	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 23 10:26:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



E13-09196 0095

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.057	128	130	137	rBV	525869	344138	1.42%	0.375%
2	2.463	204	206	214	rBV2	3296253	1922823	7.93%	2.093%
3	2.698	247	250	261	rVB	1470481	988991	4.08%	1.077%
4	2.939	293	295	301	rVB2	242915	256715	1.06%	0.279%
5	3.008	305	308	314	rBV	4737357	2312180	9.54%	2.517%
6	3.468	392	394	397	rVB	3488518	1884439	7.77%	2.052%
7	3.810	445	458	460	rVV	6317116	6132646	25.29%	6.677%
8	3.922	460	479	481	rVV	6499937	24246324	100.00%	26.398%
9	3.948	482	484	486	rBV	1367057	784603	3.24%	0.854%
10	4.061	501	505	508	rBV2	739669	689702	2.84%	0.751%
11	4.114	513	515	517	rBV2	399416	286107	1.18%	0.311%
12	4.178	524	527	528	rBV	3318108	1606687	6.63%	1.749%
13	4.194	528	530	532	rVB	2123785	1042607	4.30%	1.135%
14	4.280	543	546	548	rBV2	380573	377804	1.56%	0.411%
15	4.403	567	569	571	rVB	3277607	1808025	7.46%	1.968%
16	4.435	571	575	577	rBV	1417852	963237	3.97%	1.049%
17	4.499	583	587	590	rBV3	551399	641723	2.65%	0.699%
18	4.552	595	597	598	rBV	3247049	1844747	7.61%	2.008%
19	4.600	604	606	607	rBV	572434	279710	1.15%	0.305%
20	4.627	607	611	613	rVV	4144519	2278312	9.40%	2.480%
21	4.648	613	615	618	rVB3	362150	294758	1.22%	0.321%
22	4.755	633	635	639	rVV4	319098	360971	1.49%	0.393%
23	4.814	643	646	648	rVV	8885515	5098833	21.03%	5.551%
24	4.846	650	652	655	rVB	2762273	1873046	7.73%	2.039%
25	5.065	690	693	695	rBV	3399706	2063993	8.51%	2.247%
26	5.086	695	697	702	rBV2	448326	422082	1.74%	0.460%
27	5.134	704	706	710	rBV2	915675	1047408	4.32%	1.140%
28	5.231	722	724	726	rBV	564450	356942	1.47%	0.389%
29	5.279	730	733	736	rBV	3455647	2172383	8.96%	2.365%
30	5.364	746	749	753	rVB2	1812019	1659121	6.84%	1.806%
31	5.423	757	760	763	rBV	2736506	1935210	7.98%	2.107%
32	5.503	772	775	783	rVB2	2662646	2547093	10.51%	2.773%
33	5.562	783	786	789	rBV	910463	1019186	4.20%	1.110%
34	5.802	828	831	834	rBV	1518950	1167267	4.81%	1.271%
35	5.914	849	852	853	rBV	1108240	993265	4.10%	1.081%
36	6.091	882	885	894	rBV2	3026703	4890213	20.17%	5.324%
37	6.165	897	899	904	rVV2	1746636	2373838	9.79%	2.584%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	6.251	912	915	919	rVB	4880973	3826543	15.78%	4.166%
39	6.320	924	928	933	rBV3	2493068	3388153	13.97%	3.689%
40	6.470	953	956	960	rBV4	1989796	2380373	9.82%	2.592%
41	6.566	971	974	978	rBV	1384372	1287257	5.31%	1.401%

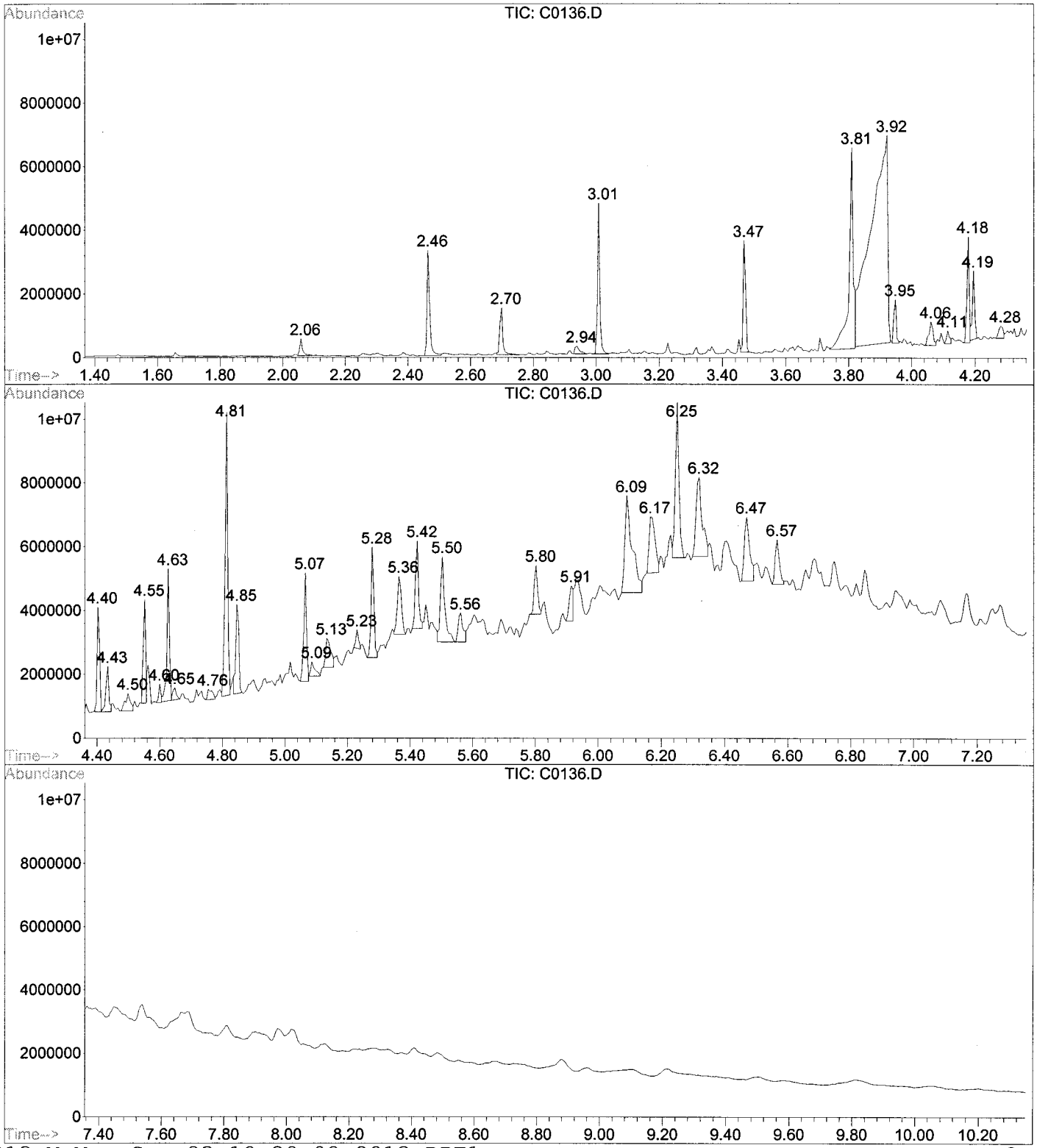
Sum of corrected areas: 91849455

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

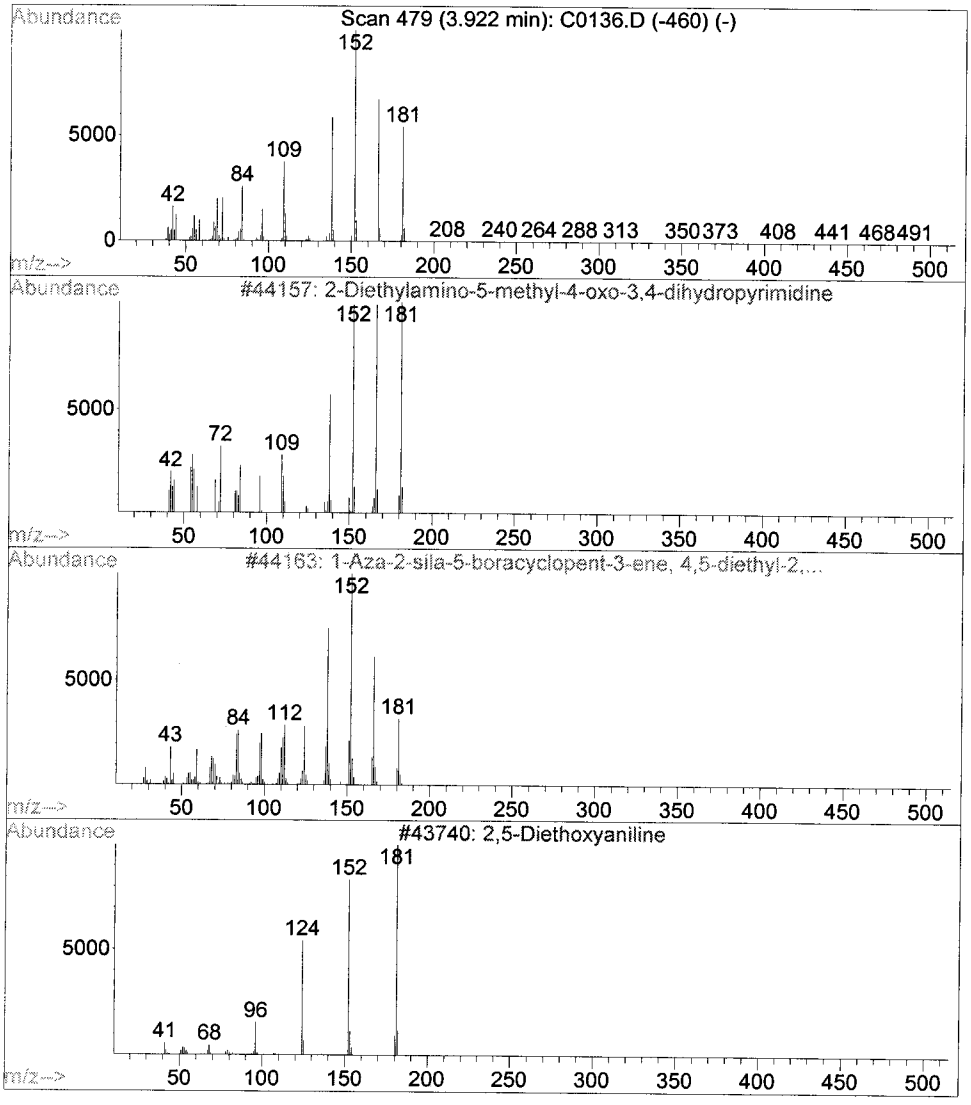
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

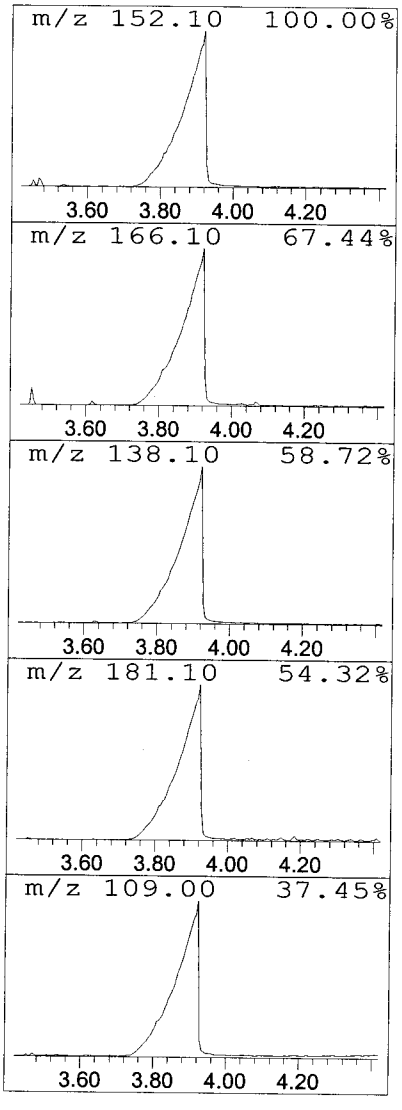
****

Peak Number 1 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.92	158.15 UG	24246300	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Diethylamino-5-methyl-4-oxo-3,...	181	C9H15N3O	300587-45-5	78
2	1-Aza-2-sila-5-boracyclopent-3-e...	181	C9H20BNSi	107098-32-8	45
3	2,5-Diethoxyaniline	181	C10H15NO2	000094-85-9	35
4	p-Ethoxybenzyl alcohol	152	C9H12O2	006214-44-4	14
5	2,4,5-Trimethyl-1H-pyrrole-3-car...	181	C10H15NO2	002199-54-4	14





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

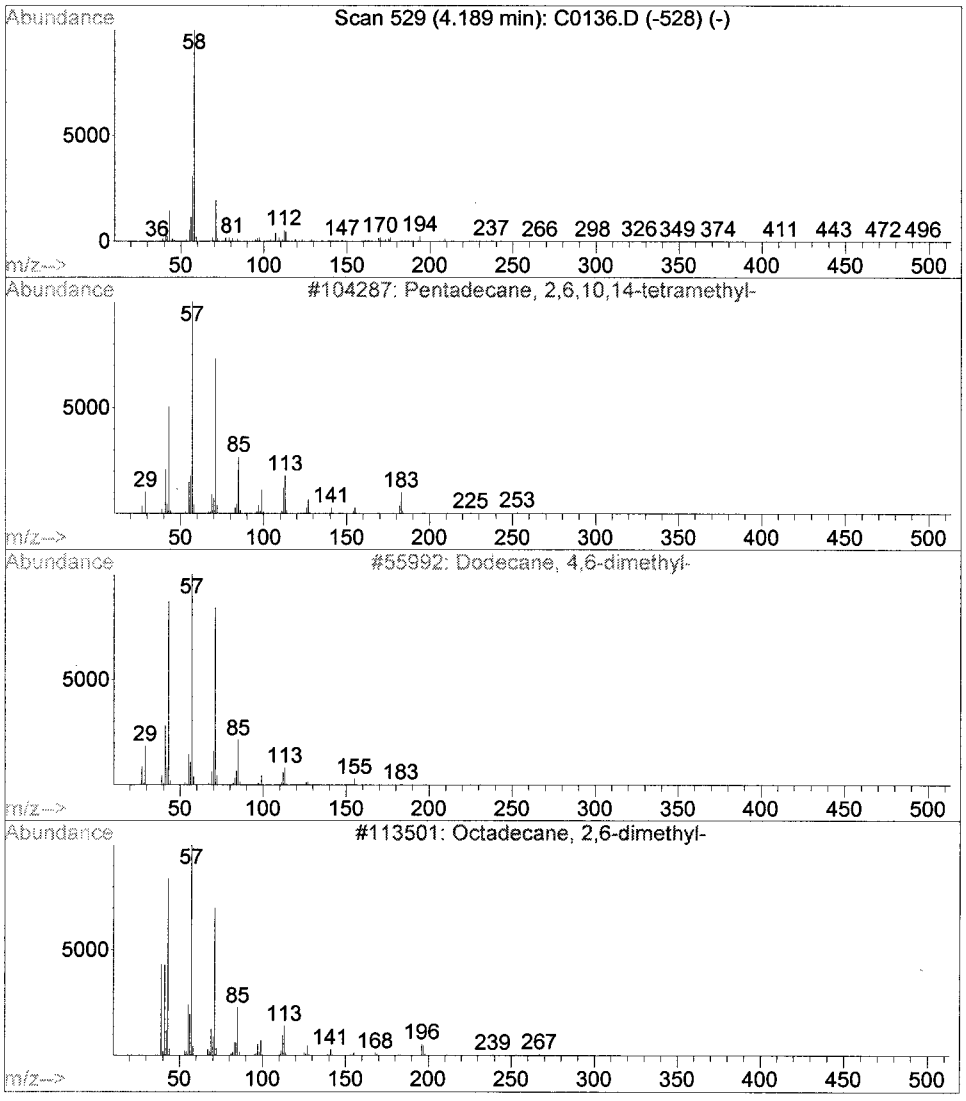
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

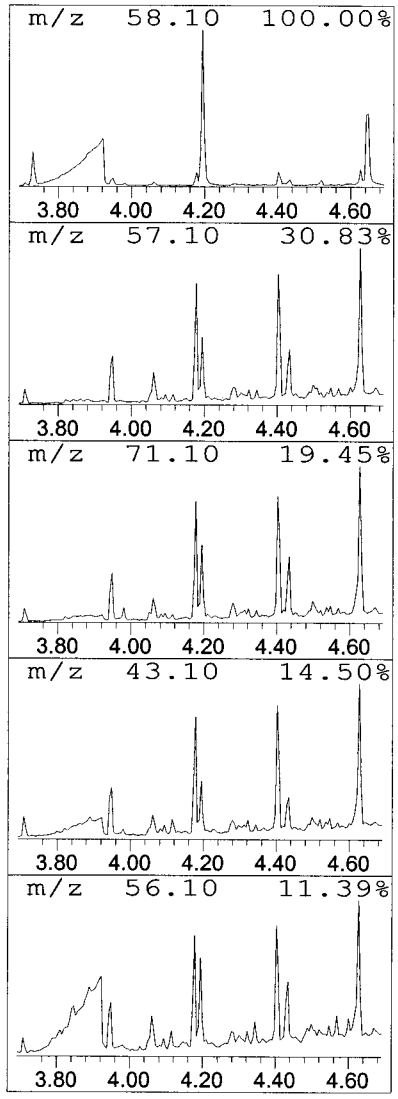
****

Peak Number 2 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.19	22.61 UG	1042610	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	95
2	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8	55
3	Octadecane, 2,6-dimethyl-	282	C20H42	075163-97-2	46
4	Sulfurous acid, decyl 2-ethylhex...	334	C18H38O3S	1000309-19-3	43
5	Dodecane, 2,7,10-trimethyl-	212	C15H32	074645-98-0	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

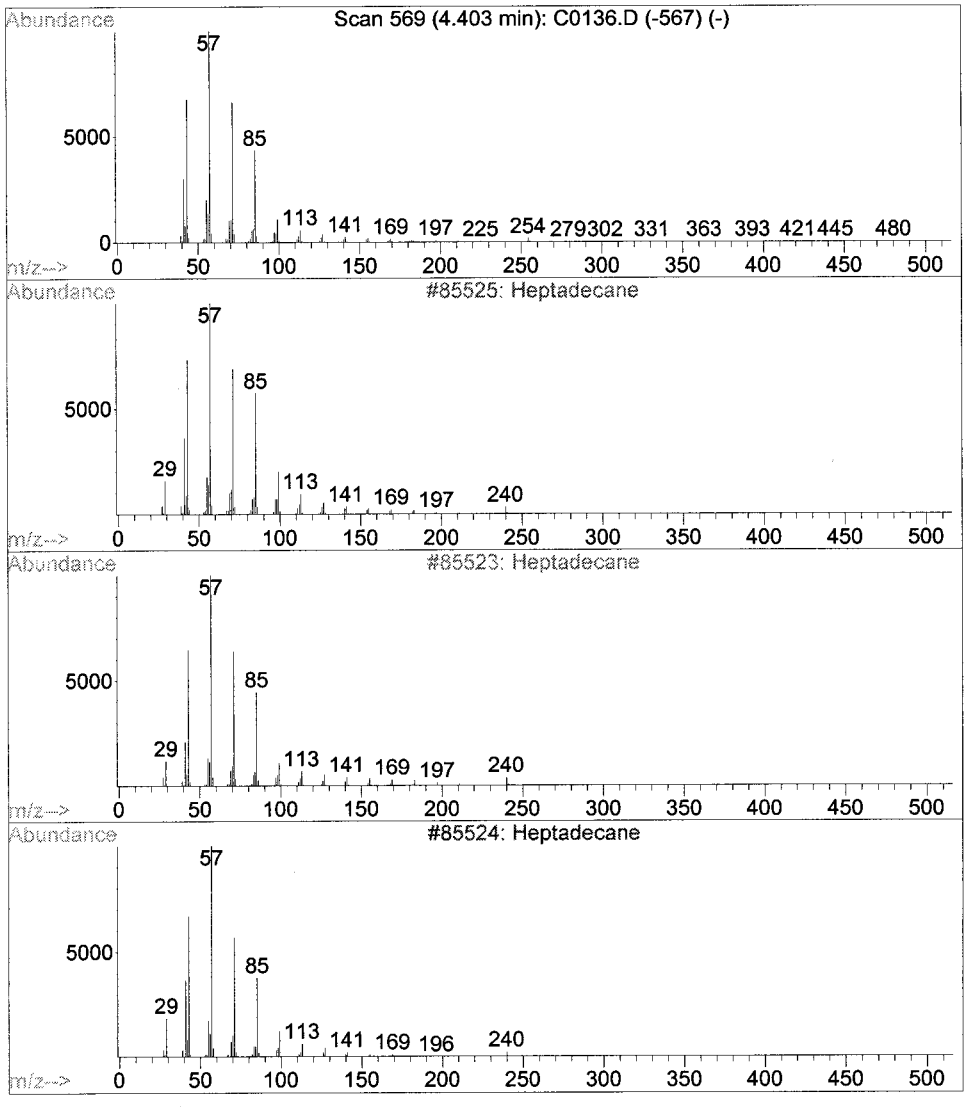
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

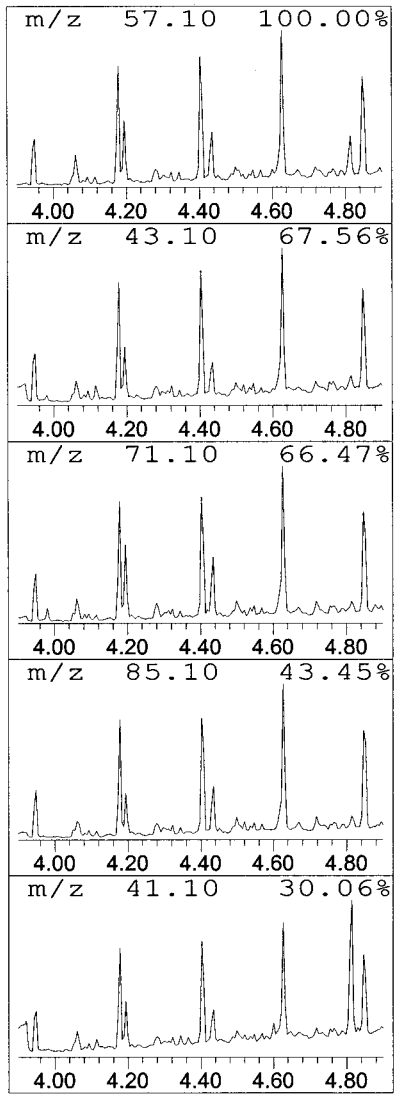
****

Peak Number 3 Unknown Hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.40	39.20 UG	1808030	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane	240	C17H36	000629-78-7	97
2	Heptadecane	240	C17H36	000629-78-7	96
3	Heptadecane	240	C17H36	000629-78-7	95
4	Octadecane	254	C18H38	000593-45-3	95
5	Dodecane, 2-methyl-6-propyl-	226	C16H34	055045-08-4	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

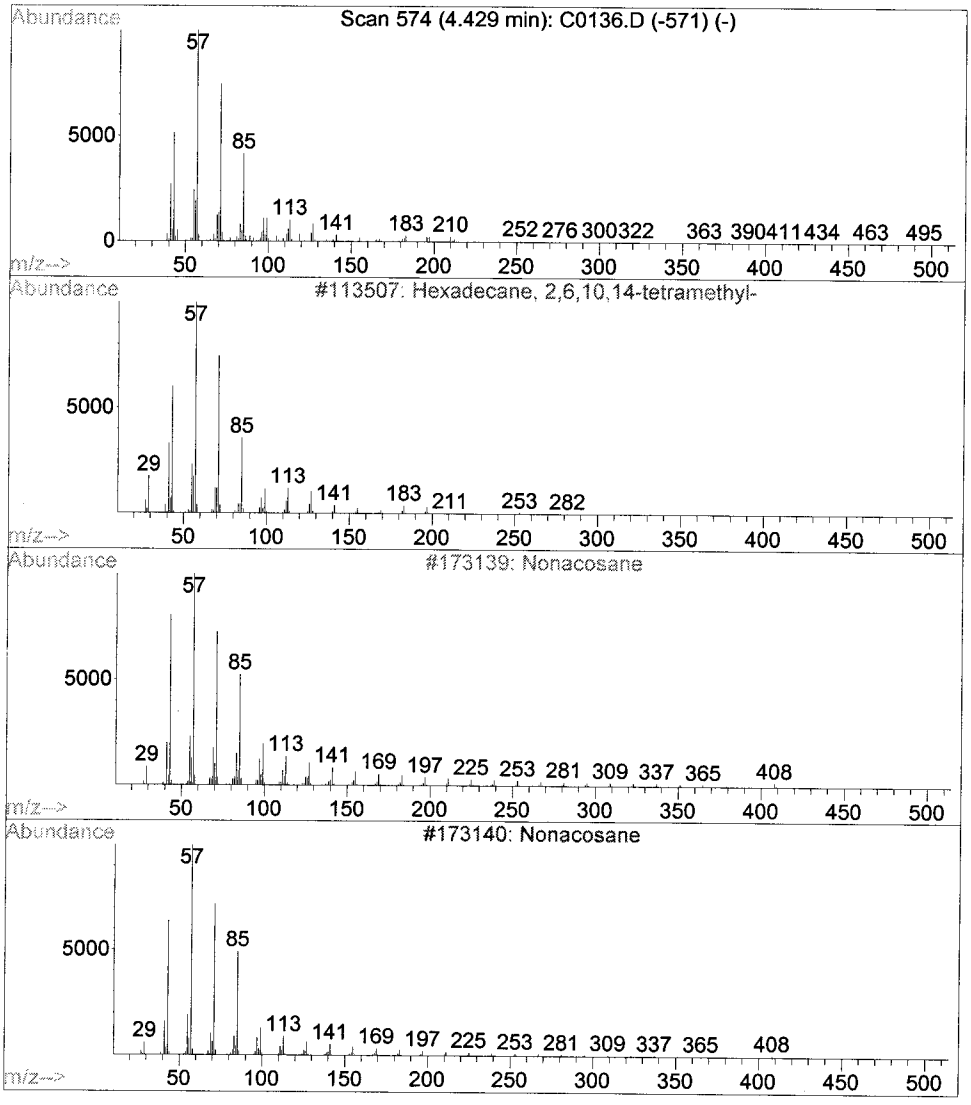
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

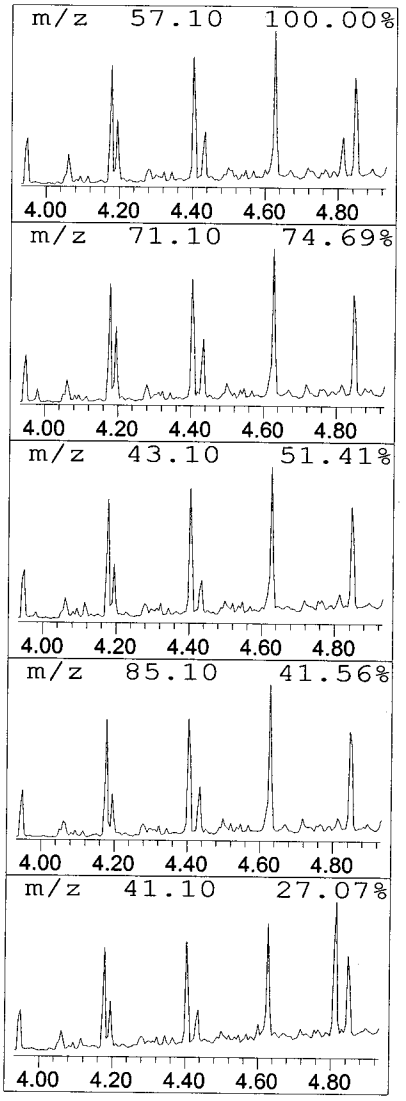
****

Peak Number 4 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.43	20.89 UG	963237	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	99
2	Nonacosane	408	C29H60	000630-03-5	91
3	Nonacosane	408	C29H60	000630-03-5	87
4	Tridecane, 5-propyl-	226	C16H34	055045-11-9	87
5	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44	054833-48-6	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

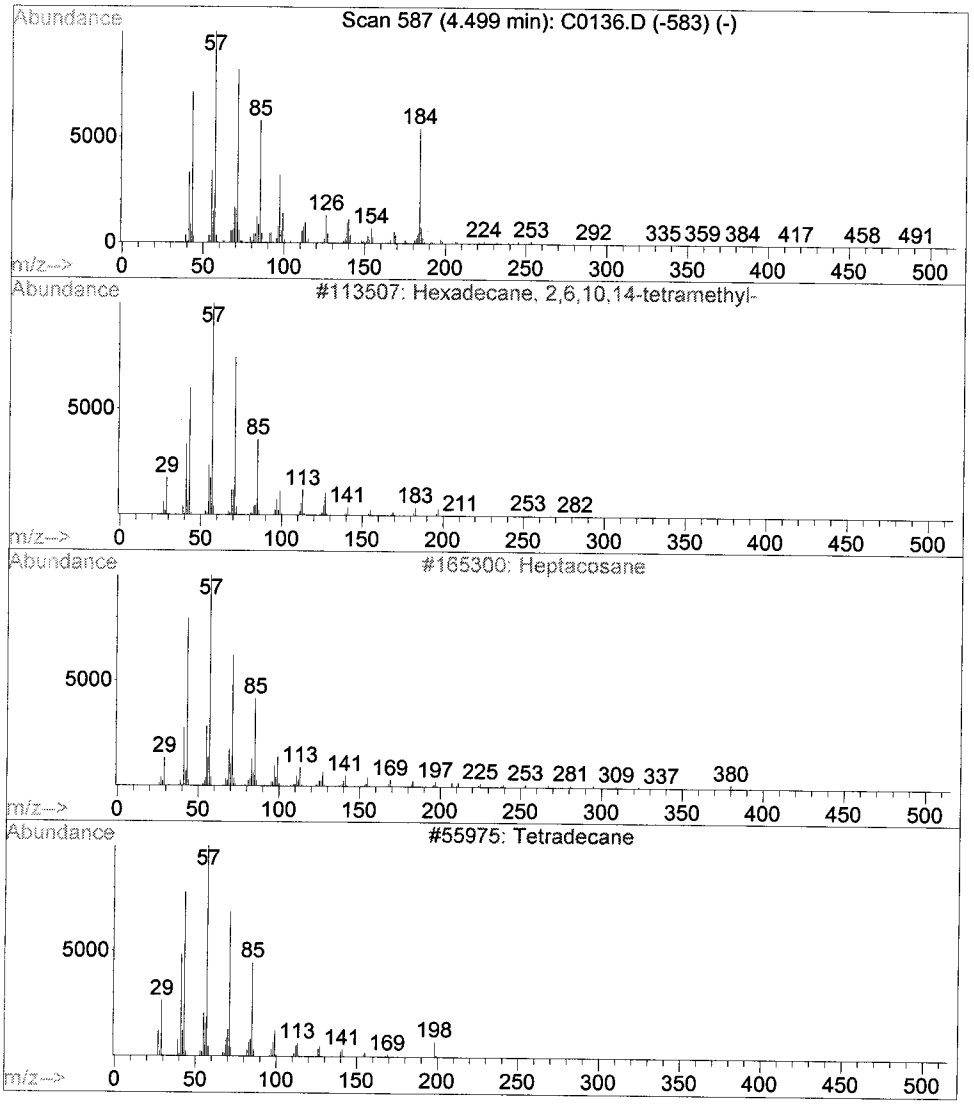
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

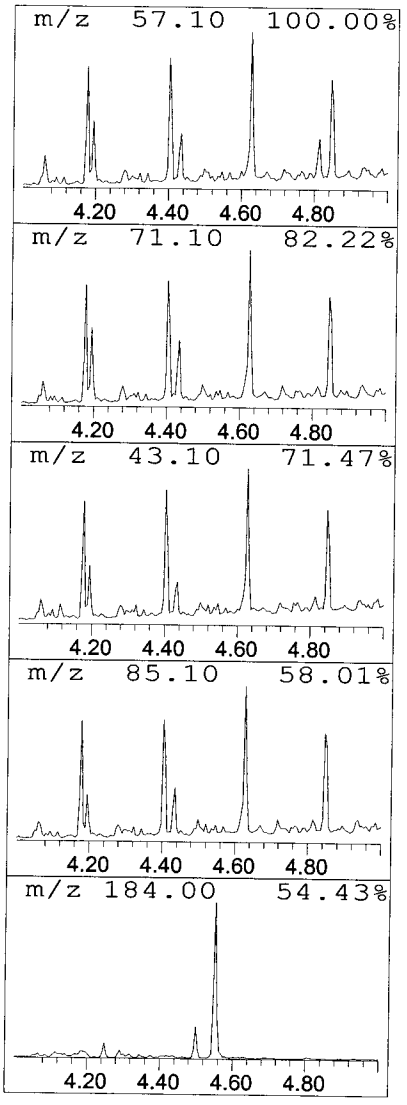
****

Peak Number 5 Unknown Hydrocarbon Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.50	13.91 UG	641723	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	70
2	Heptacosane	380	C27H56	000593-49-7	64
3	Tetradecane	198	C14H30	000629-59-4	58
4	Nonacosane	408	C29H60	000630-03-5	58
5	Nonadecane	268	C19H40	000629-92-5	52





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

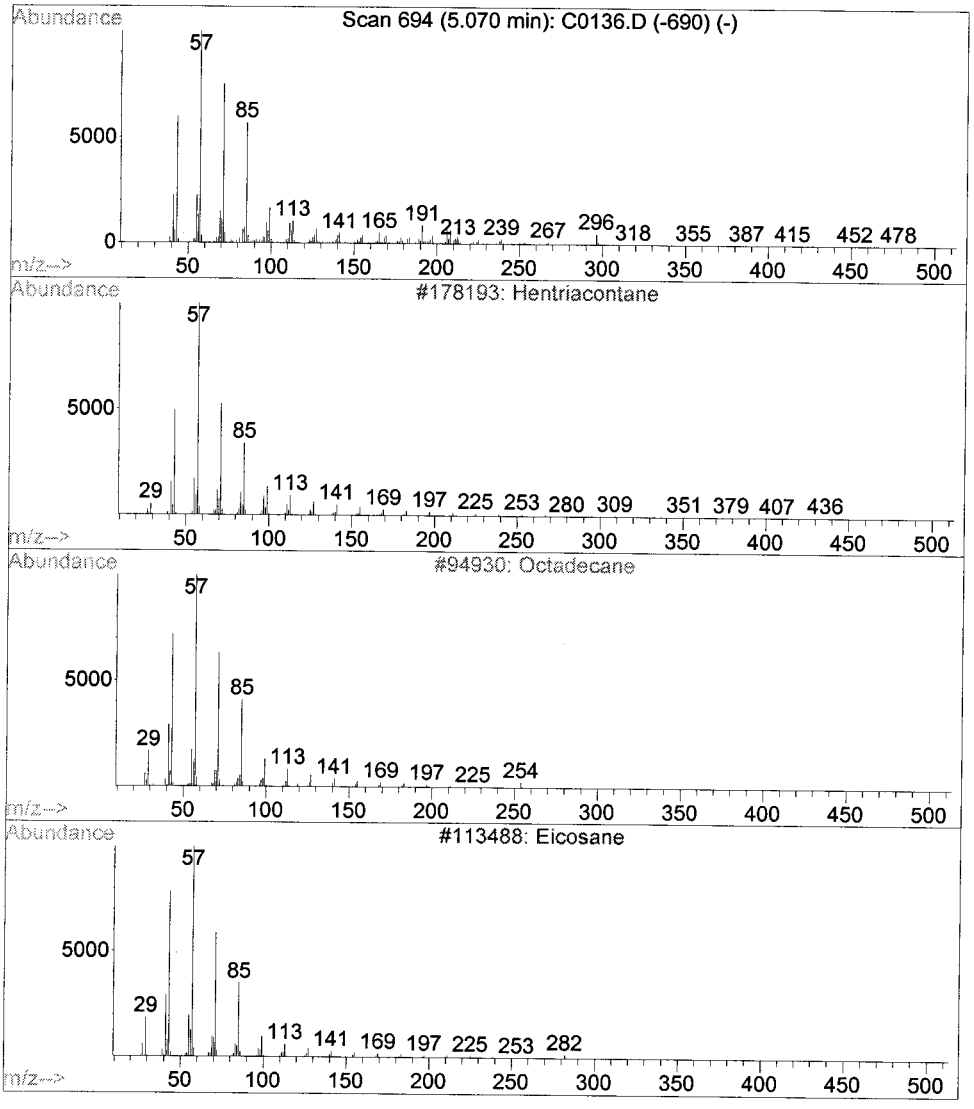
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

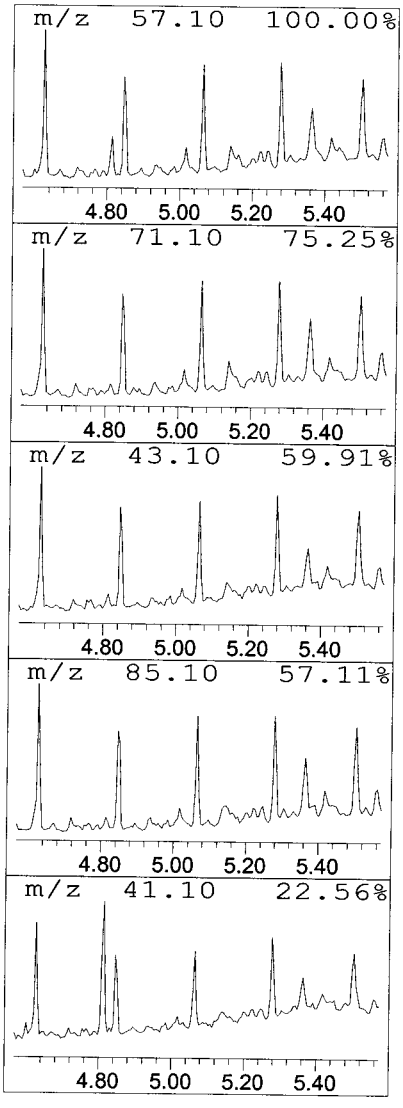
****

Peak Number 6 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.07	44.75 UG	2063990	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hentriacontane	437	C31H64	000630-04-6	91
2	Octadecane	254	C18H38	000593-45-3	90
3	Eicosane	282	C20H42	000112-95-8	90
4	Octadecane	254	C18H38	000593-45-3	90
5	Octacosane	394	C28H58	000630-02-4	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

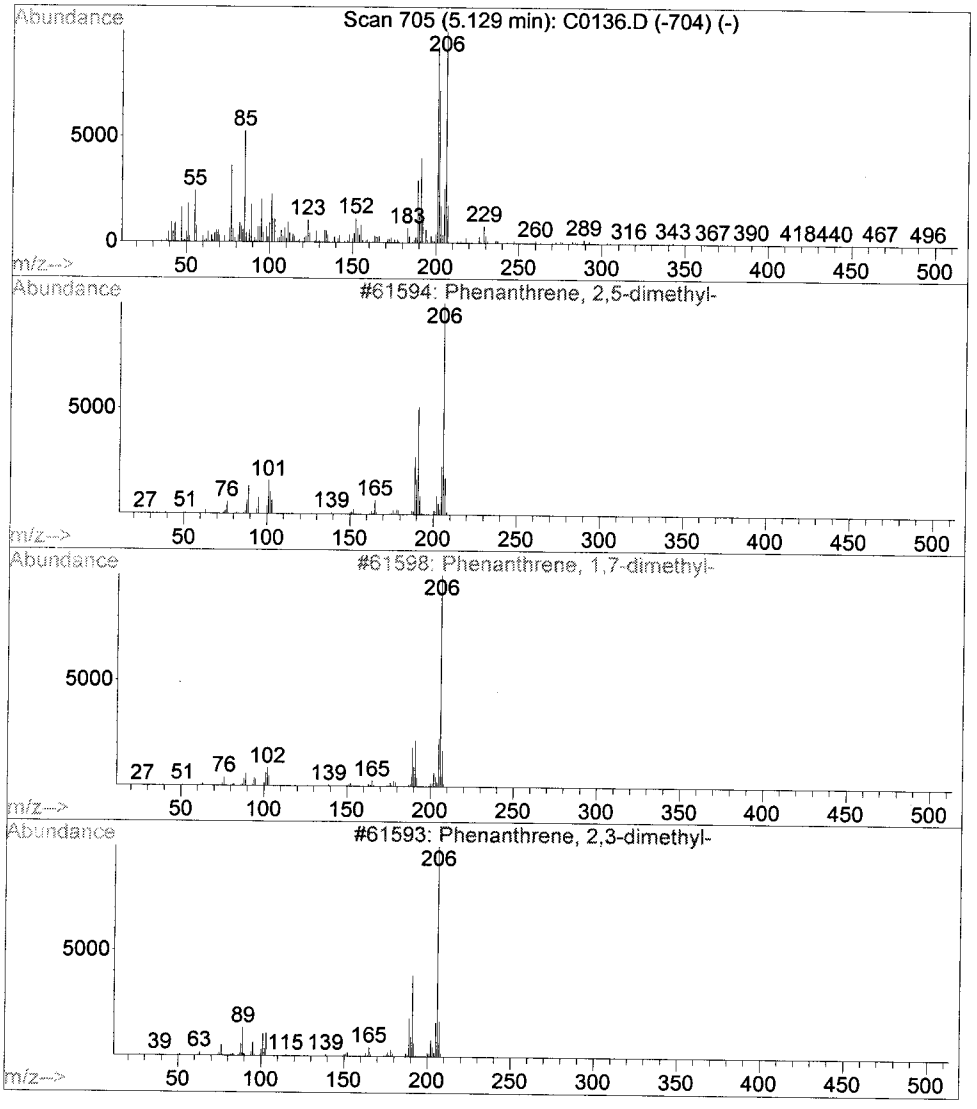
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

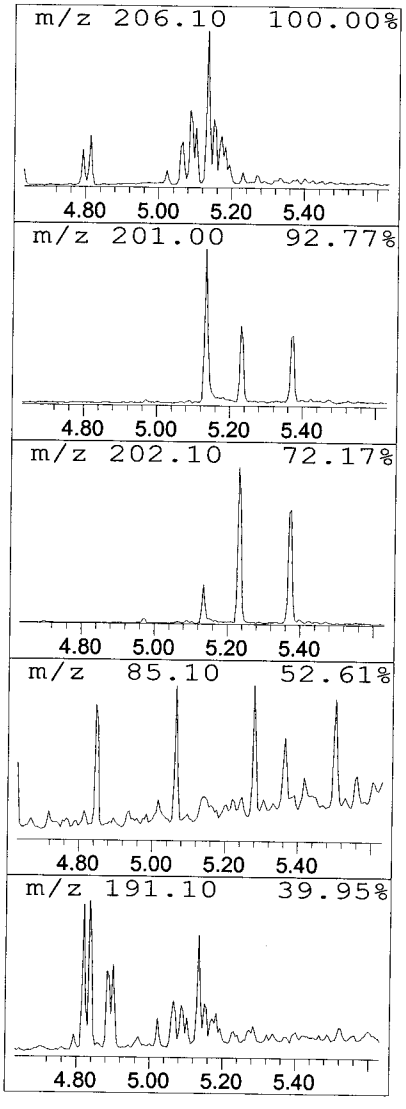
****

Peak Number 7 Unknown PAH Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.13	22.71 UG	1047410	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	84
2	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	60
3	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	55
4	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	47
5	9,10-Dimethylanthracene	206	C16H14	000781-43-1	42





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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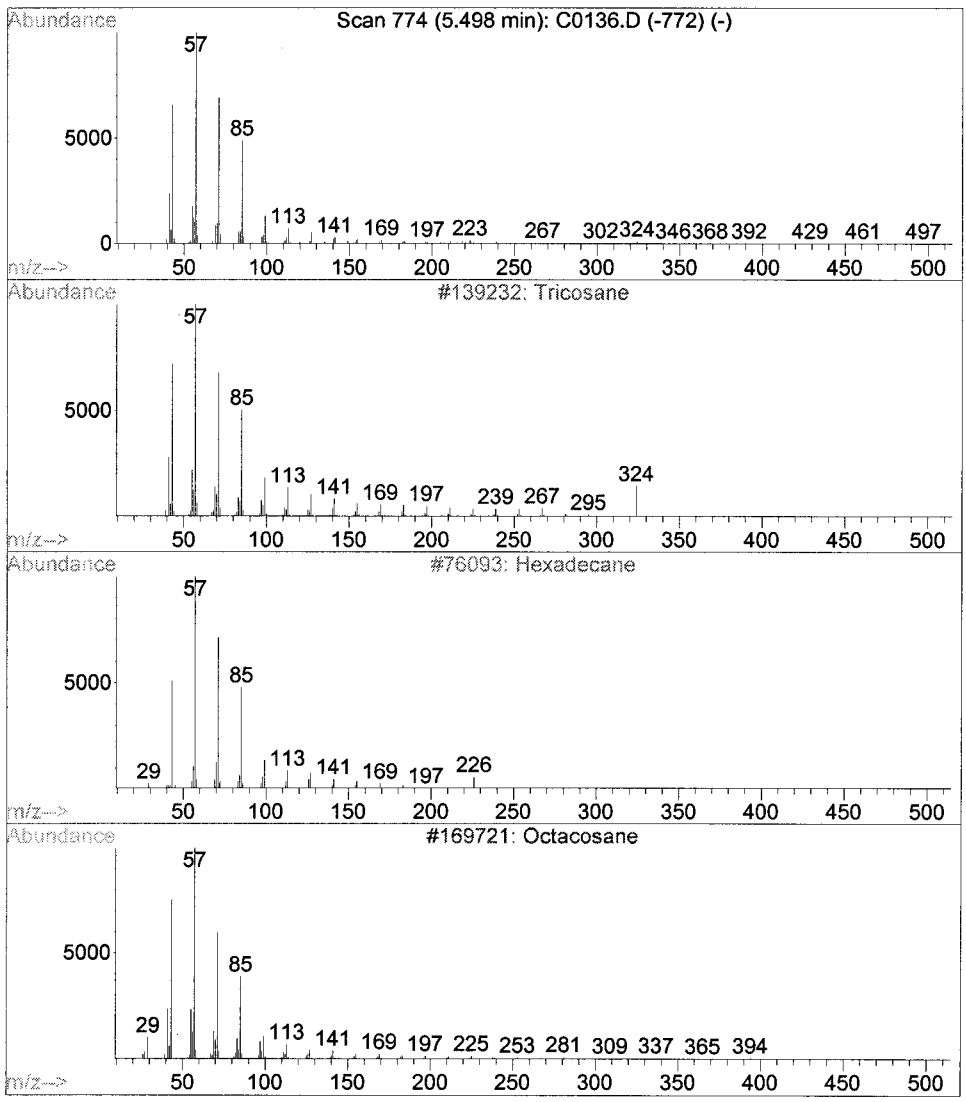
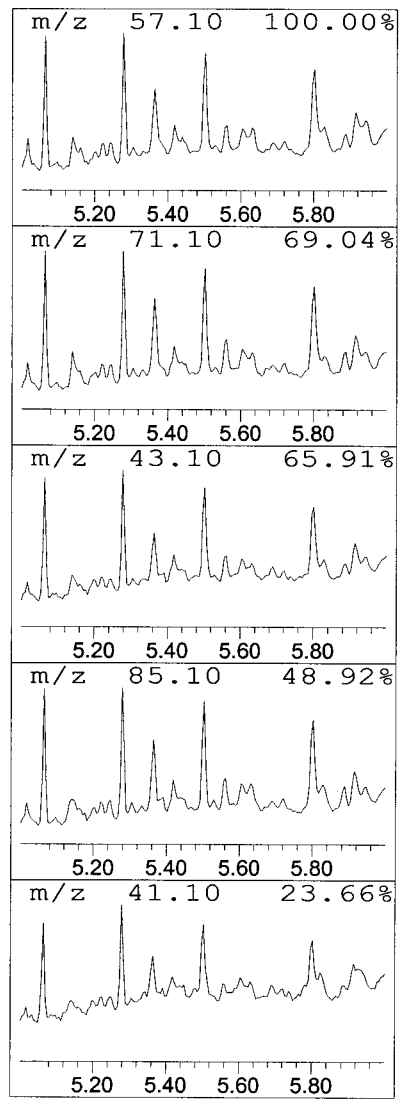
Peak Number 8 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.50	30.07 UG	2547090	Chrysene-d12	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tricosane	324	C23H48	000638-67-5	96
2	Hexadecane	226	C16H34	000544-76-3	94
3	Octacosane	394	C28H58	000630-02-4	93
4	Octacosane	394	C28H58	000630-02-4	92
5	Hexadecane	226	C16H34	000544-76-3	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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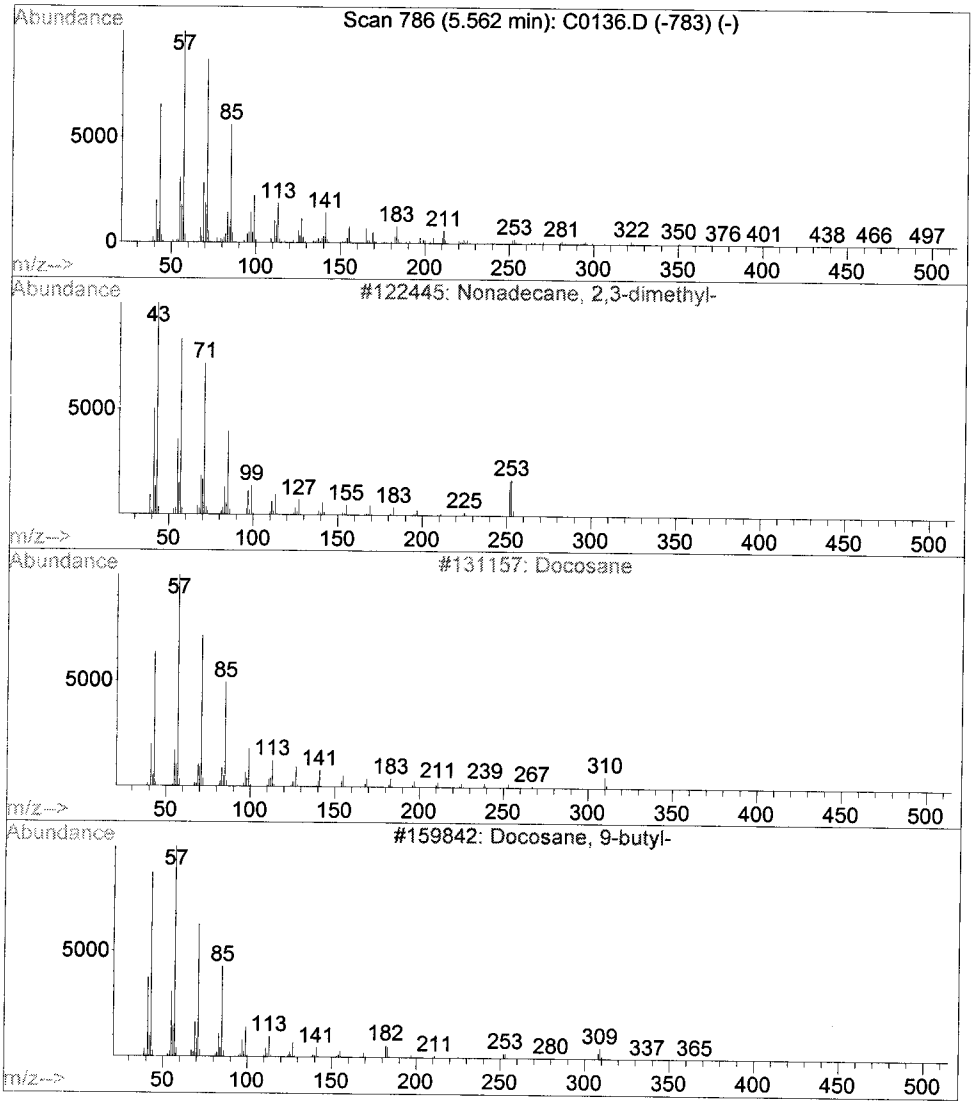
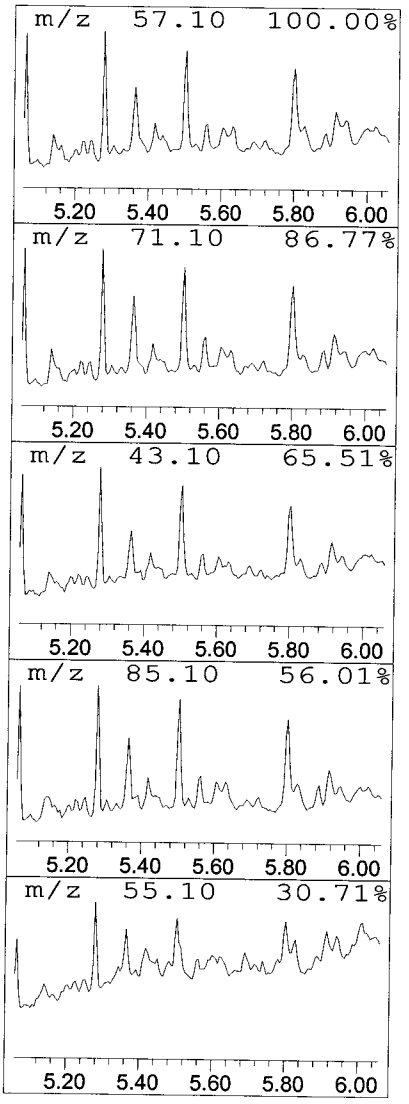
Peak Number 9 Unknown Hydrocarbon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.56	12.03 UG	1019190	Chrysene-d12	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonadecane, 2,3-dimethyl-	296	C21H44	075163-99-4	91
2	Docosane	310	C22H46	000629-97-0	91
3	Docosane, 9-butyl-	366	C26H54	055282-14-9	91
4	Docosane, 11-butyl-	366	C26H54	013475-76-8	91
5	Heptadecane, 9-octyl-	352	C25H52	007225-64-1	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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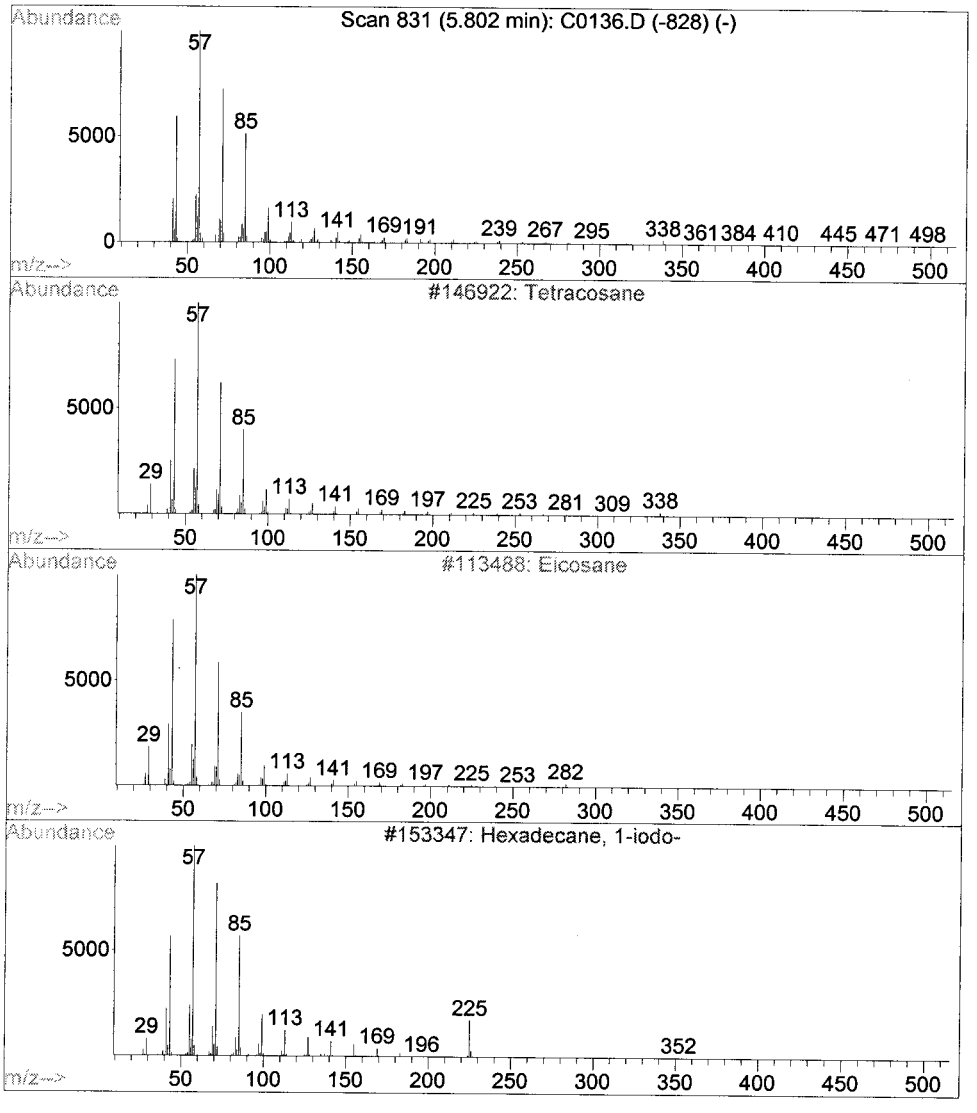
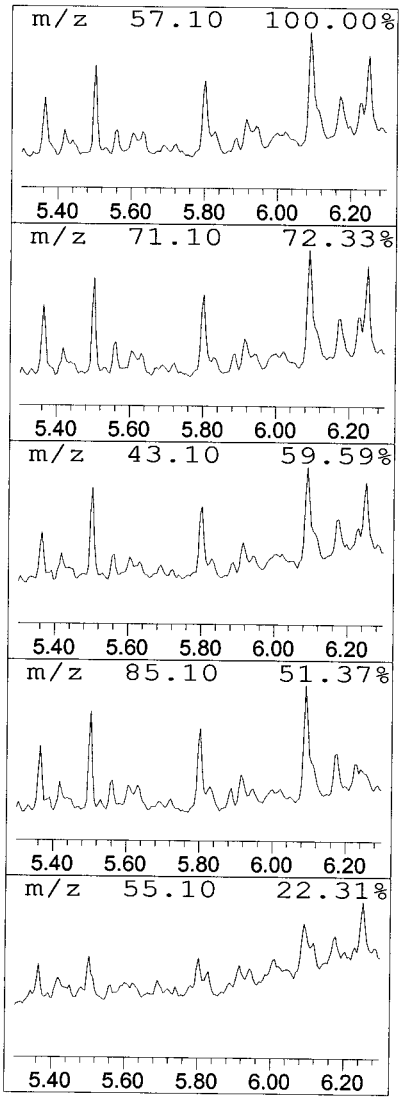
Peak Number 10 Unknown Hydrocarbon Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.80	13.78 UG	1167270	Chrysene-d12	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	98
2	Eicosane	282	C20H42	000112-95-8	97
3	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	97
4	Tetracosane	338	C24H50	000646-31-1	95
5	Heneicosane	296	C21H44	000629-94-7	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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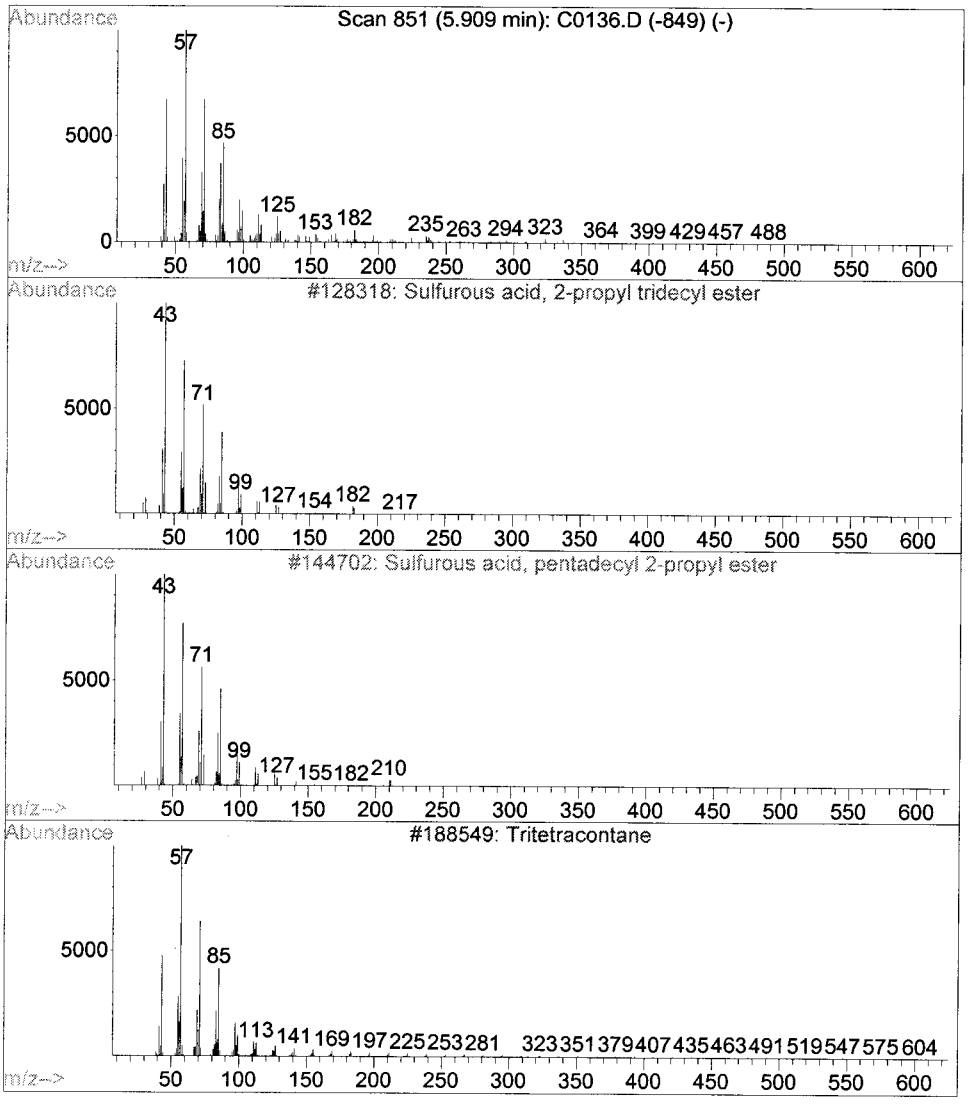
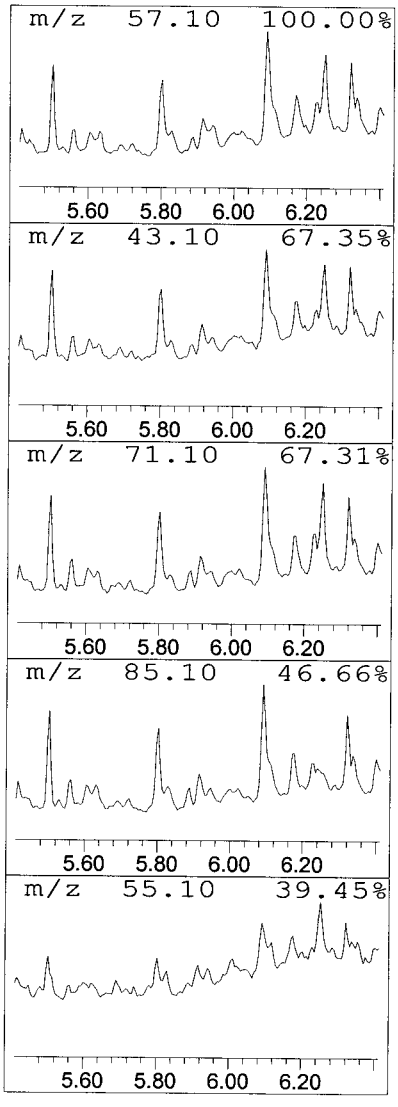
Peak Number 11 Unknown SV Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.91	11.73 UG	993265	Chrysene-d12	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Sulfurous acid, 2-propyl tridecy...	306	C16H34O3S	1000309-12-4	91
2	Sulfurous acid, pentadecyl 2-pro...	334	C18H38O3S	1000309-12-6	91
3	Tritetracontane	605	C43H88	007098-21-7	90
4	Heptacosane, 1-chloro-	414	C27H55Cl	062016-79-9	87
5	Sulfurous acid, butyl heptadecyl...	376	C21H44O3S	1000309-18-4	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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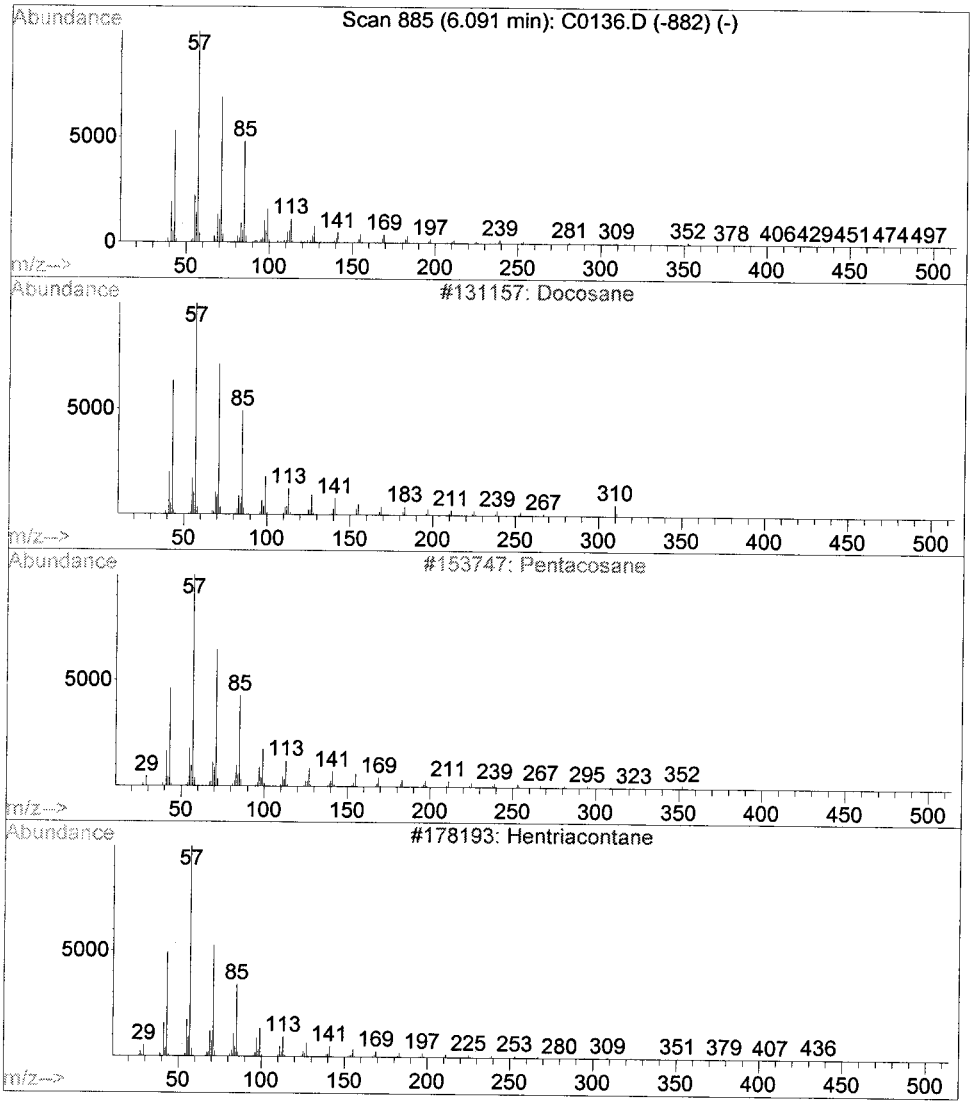
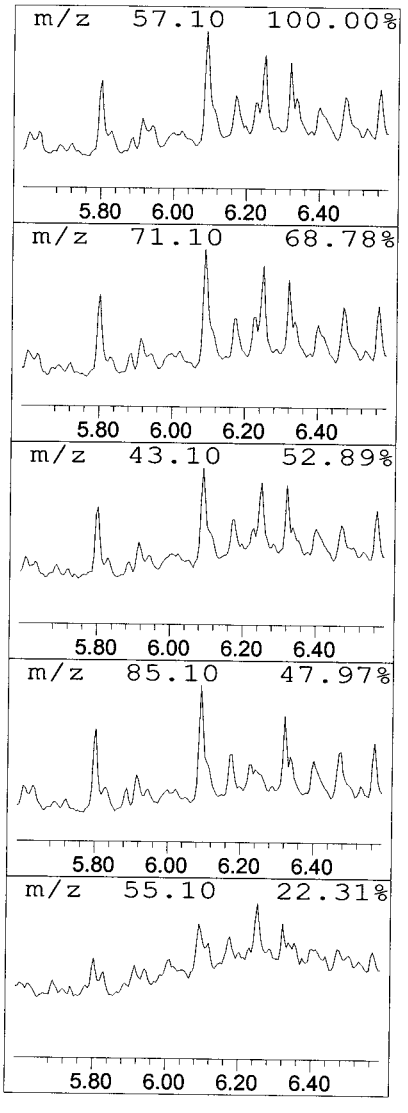
Peak Number 12 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.09	57.73 UG	4890210	Chrysene-d12	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Docosane	310	C22H46	000629-97-0	97
2	Pentacosane	352	C25H52	000629-99-2	97
3	Hentriacontane	437	C31H64	000630-04-6	96
4	Nonacosane	408	C29H60	000630-03-5	96
5	Pentacosane	352	C25H52	000629-99-2	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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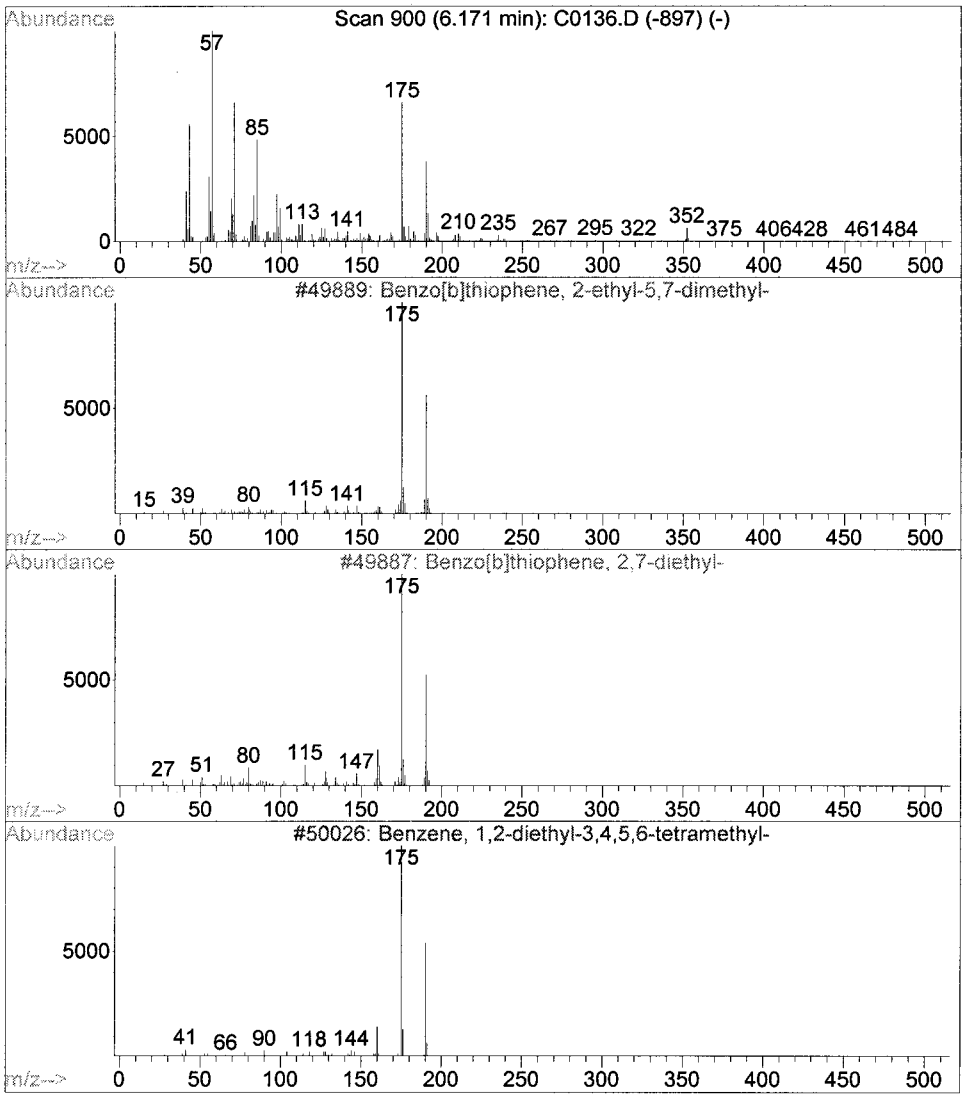
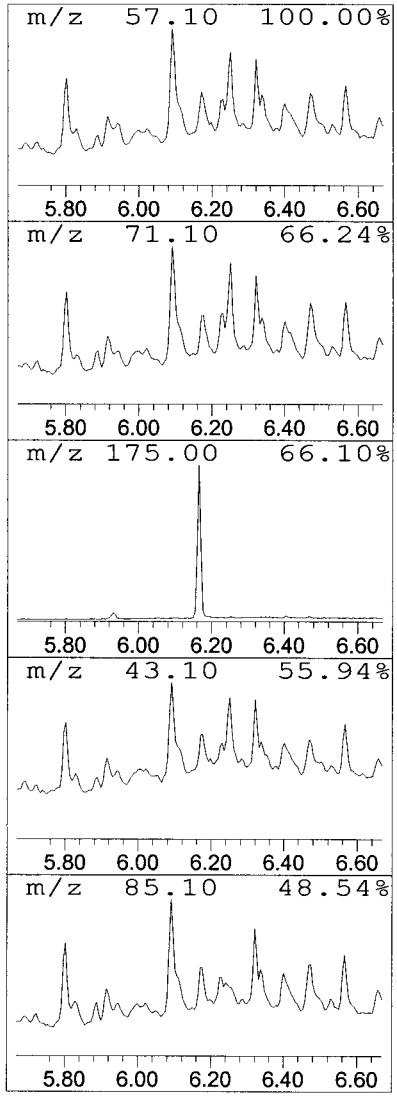
Peak Number 13 Unknown SV Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.17	28.03 UG	2373840	Chrysene-d12	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzo[b]thiophene, 2-ethyl-5,7-d...	190	C12H14S	018428-05-2	53
2	Benzo[b]thiophene, 2,7-diethyl-	190	C12H14S	016587-45-4	53
3	Benzene, 1,2-diethyl-3,4,5,6-tet...	190	C14H22	033884-69-4	53
4	Benzenamine, N,N-dimethyl-4-[[(1...	190	C12H18N2	027976-83-6	53
5	2-Acetyl-6-methylbenzo(b)thiophene	190	C11H10OS	001467-89-6	53





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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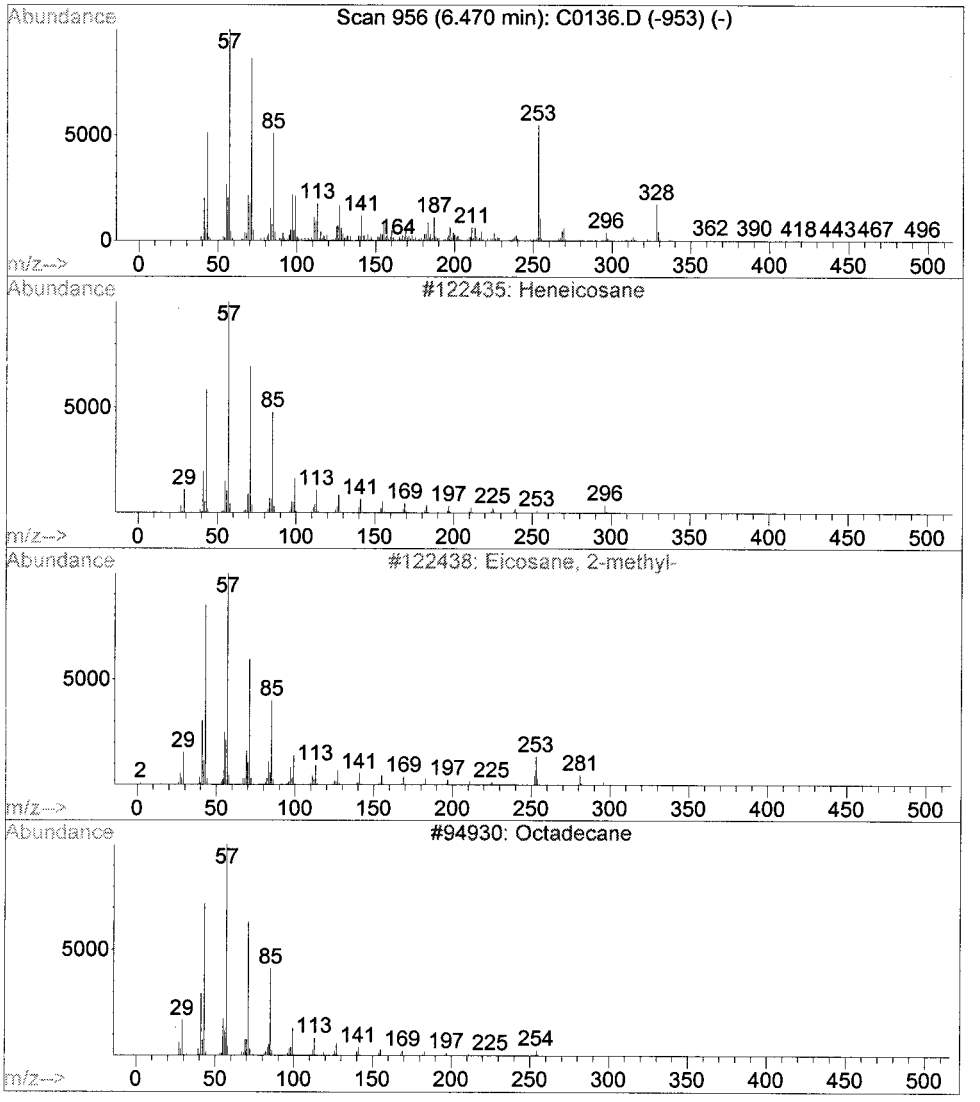
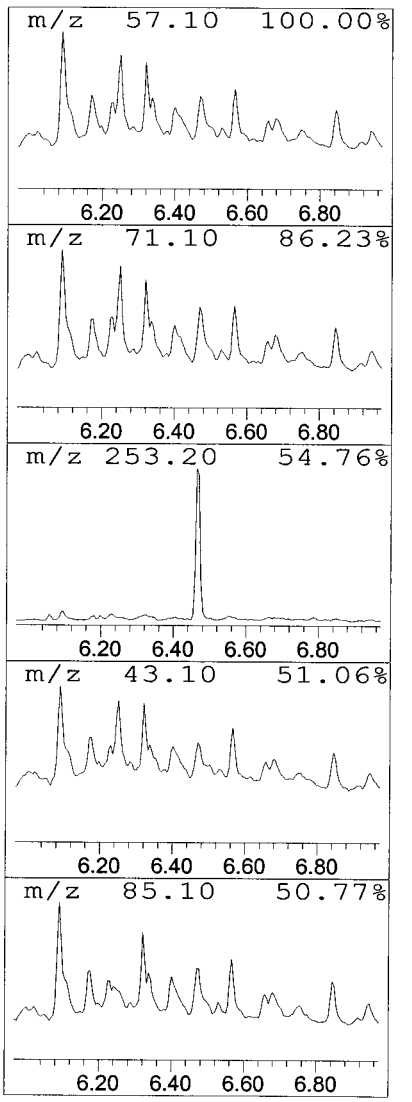
Peak Number 14 Unknown Hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.47	28.10 UG	2380370	Chrysene-d12	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	92
2	Eicosane, 2-methyl-	296	C21H44	001560-84-5	92
3	Octadecane	254	C18H38	000593-45-3	91
4	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	90
5	Nonadecane	268	C19H40	000629-92-5	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0136.D
Acq On : 20 Sep 2013 18:44
Operator : EDM
Sample : C-1_WARE,E13-09196-001,Xs,15.14g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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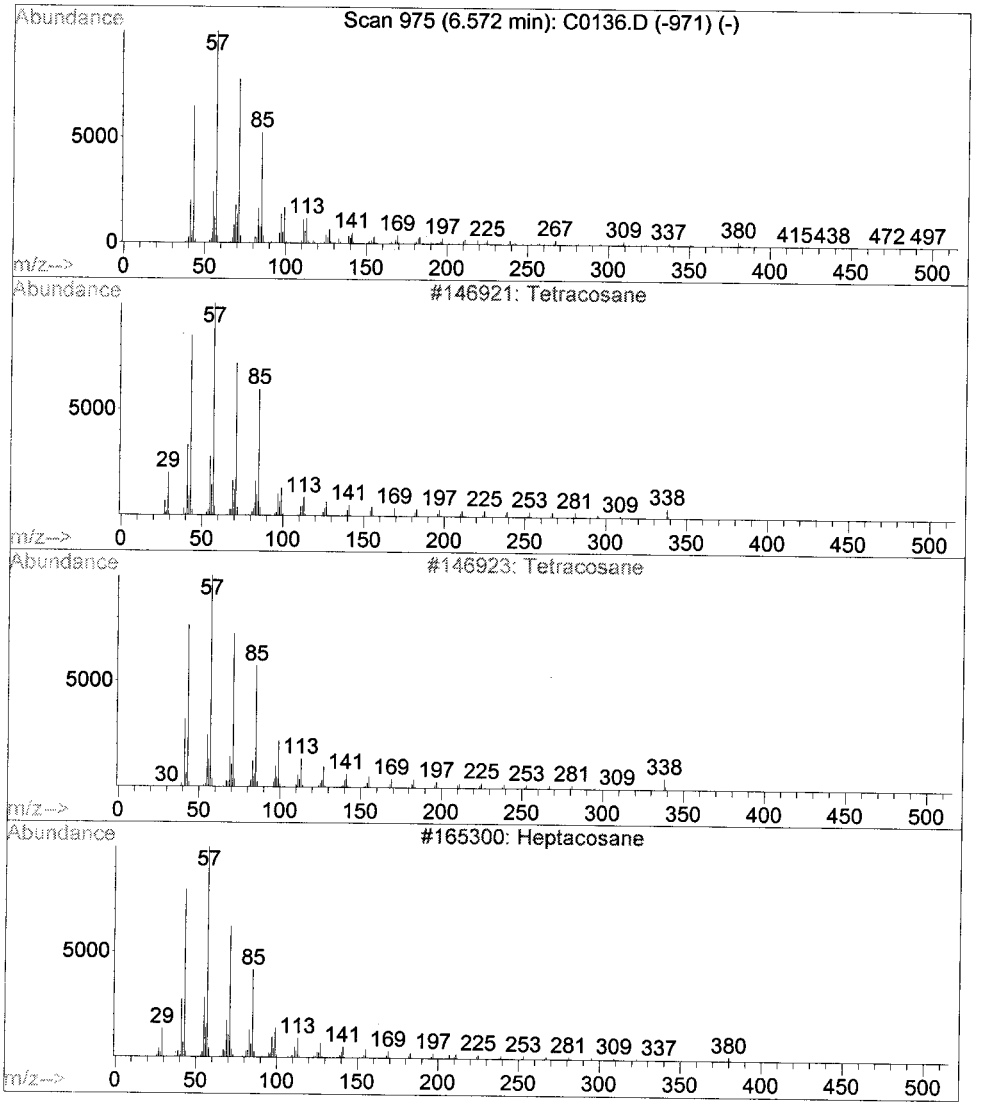
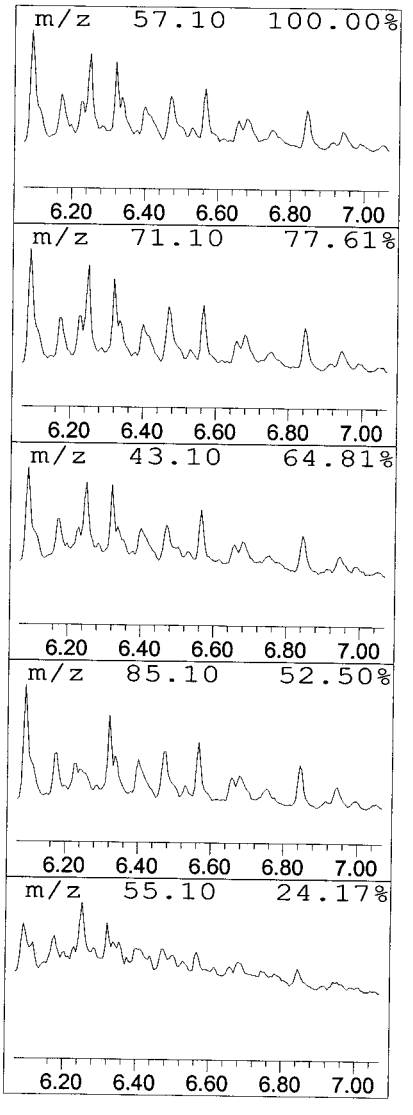
Peak Number 15 Unknown Hydrocarbon Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.57	15.20 UG	1287260	Chrysene-d12	6.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	98
2	Tetracosane	338	C24H50	000646-31-1	97
3	Heptacosane	380	C27H56	000593-49-7	95
4	Nonadecane	268	C19H40	000629-92-5	94
5	Tridecane, 7-hexyl-	268	C19H40	007225-66-3	93





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 23 10:05:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

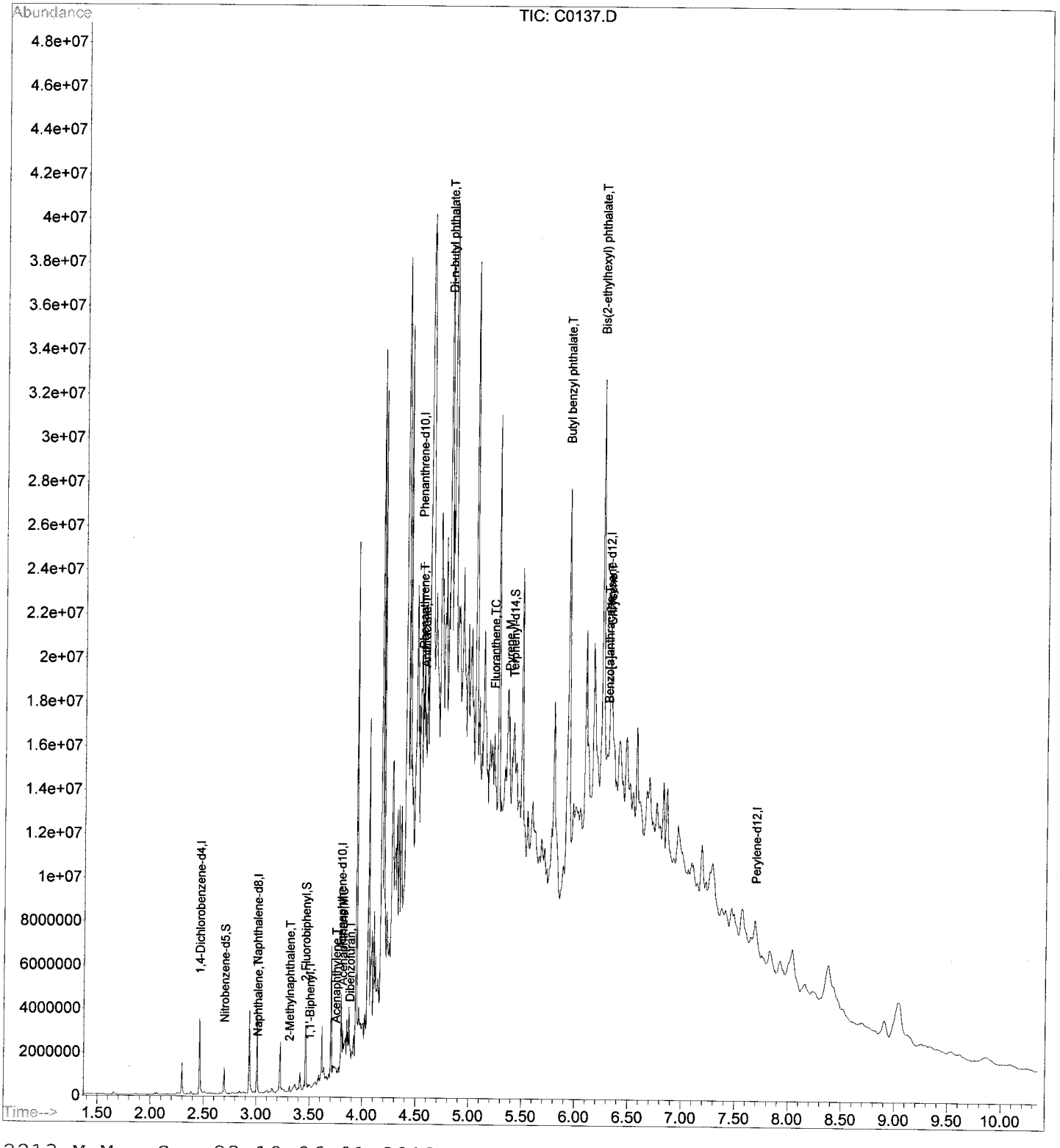
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.46	152	211548	40.00	UG	-0.01
23) Naphthalene-d8	3.01	136	884805	40.00	UG	-0.02
43) Acenaphthene-d10	3.80	164	458530	40.00	UG	-0.06
66) Phenanthrene-d10	4.54	188	735528m	40.00	UG	-0.11
82) Chrysene-d12	6.31	240	606737m	40.00	UG	-0.13
92) Perylene-d12	7.70	264	311081	40.00	UG	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.70	82	204270	28.53	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery =	57.06%		
47) 2-Fluorobiphenyl	3.47	172	453625	29.26	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery =	58.52%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery =	0.00%#		
84) Terphenyl-d14	5.41	244	468072m	29.10	UG	-0.19
Spiked Amount 50.000	Range 15 - 122		Recovery =	58.20%		
Target Compounds						Qvalue
34) Naphthalene	3.02	128	20557	0.85	UG	# 70
41) 2-Methylnaphthalene	3.31	142	45979	2.90	UG	99
48) 1,1'-Biphenyl	3.51	154	10010	0.61	UG	88
53) Acenaphthylene	3.76	152	55390	2.85	UG	# 81
55) Acenaphthene	3.81	153	37429	2.86	UG	97
59) Dibenzofuran	3.89	168	61702	3.50	UG	95
75) Phenanthrene	4.55	178	739573	37.15	UG	99
76) Anthracene	4.58	178	78717m	3.93	UG	
78) Di-n-butyl phthalate	4.80	149	11151082m	504.04	UG	
79) Fluoranthene	5.23	202	655594m	31.17	UG	
83) Pyrene	5.36	202	718467m	35.11	UG	
86) Butyl benzyl phthalate	5.93	149	881738	105.19	UG	# 55
88) Benzo[a]anthracene	6.30	228	235027m	14.35	UG	
89) Chrysene	6.33	228	443773	28.22	UG	95
90) Bis(2-ethylhexyl) phthalat	6.25	149	5216620	473.05	UG	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 23 10:05:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



Quantitation Report (LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0168.D
Acq On : 23 Sep 2013 11:53
Operator : EDM
Sample : C-2_LOAD,E13-09196-002DL,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 23 12:29:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

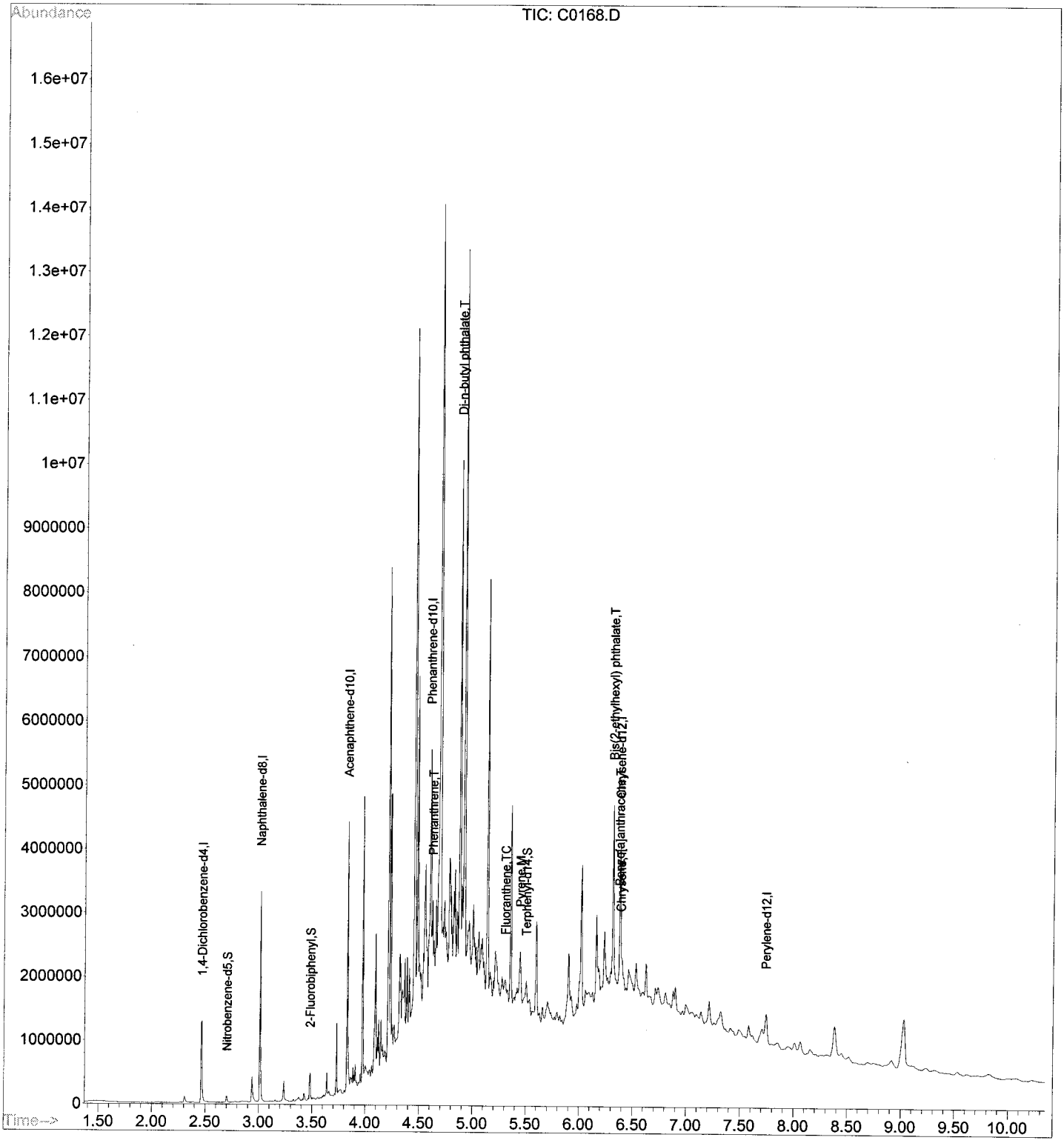
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	166125	40.00	UG	0.00
23) Naphthalene-d8	3.01	136	882162m	40.00	UG	-0.01
43) Acenaphthene-d10	3.83	164	508150m	40.00	UG	-0.03
66) Phenanthrene-d10	4.61	188	669011m	40.00	UG	-0.04
82) Chrysene-d12	6.38	240	394687m	40.00	UG	-0.06
92) Perylene-d12	7.75	264	219378m	40.00	UG	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.70	82	22033	3.09	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery =	6.18%#		
47) 2-Fluorobiphenyl	3.48	172	67639m	3.94	UG	-0.02
Spiked Amount 50.000	Range 33 - 91		Recovery =	7.88%#		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery =	0.00%#		
84) Terphenyl-d14	5.50	244	46796m	4.47	UG	-0.10
Spiked Amount 50.000	Range 15 - 122		Recovery =	8.94%#		
Target Compounds						Qvalue
75) Phenanthrene	4.62	178	93311m	5.15	UG	
78) Di-n-butyl phthalate	4.88	149	2413949m	119.96	UG	
79) Fluoranthene	5.31	202	60869m	3.18	UG	
83) Pyrene	5.45	202	63978m	4.81	UG	
88) Benzo[a]anthracene	6.37	228	22780m	2.14	UG	
89) Chrysene	6.40	228	41798m	4.09	UG	
90) Bis(2-ethylhexyl) phthalat	6.32	149	586780m	81.80	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0168.D
Acq On : 23 Sep 2013 11:53
Operator : EDM
Sample : C-2_LOAD,E13-09196-002DL,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 23 12:29:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.298	172	175	181	rVB	1426751	792221	1.84%	0.161%
2	2.463	204	206	213	rBV2	3466093	2019936	4.68%	0.411%
3	2.698	248	250	259	rVB	1212563	737508	1.71%	0.150%
4	2.934	292	294	301	rBV	3795062	2220255	5.14%	0.452%
5	3.008	305	308	313	rVB	3851821	1806081	4.18%	0.367%
6	3.227	345	349	351	rBV	2213441	1382615	3.20%	0.281%
7	3.366	367	375	378	rBV5	383330	647125	1.50%	0.132%
8	3.414	382	384	388	rVB	846821	561706	1.30%	0.114%
9	3.462	392	393	396	rBV2	2770756	1834019	4.25%	0.373%
10	3.591	413	417	419	rBV3	464140	445332	1.03%	0.091%
11	3.617	419	422	423	rVV	2527738	1190164	2.76%	0.242%
12	3.639	423	426	428	rVB3	544566	507281	1.18%	0.103%
13	3.703	436	438	440	rBV	6043242	3237722	7.50%	0.659%
14	3.799	453	456	458	rBV	3622515	2404247	5.57%	0.489%
15	3.815	458	459	461	rVV2	1573478	905029	2.10%	0.184%
16	3.842	461	464	465	rVV2	972592	849119	1.97%	0.173%
17	3.852	465	466	469	rVV2	1606310	1121643	2.60%	0.228%
18	3.874	469	470	474	rVB3	2380254	1263735	2.93%	0.257%
19	3.922	477	479	480	rVB	981355	555423	1.29%	0.113%
20	3.943	480	483	485	rBV	23437585	13868480	32.13%	2.821%
21	4.023	496	498	499	rBV	1136496	802148	1.86%	0.163%
22	4.055	499	504	506	rVV	14297719	11279272	26.13%	2.294%
23	4.087	506	510	511	rVB2	3916840	3721386	8.62%	0.757%
24	4.103	511	513	515	rBV2	4777834	3054695	7.08%	0.621%
25	4.120	515	516	517	rVB	1689467	603639	1.40%	0.123%
26	4.178	522	527	528	rBV	29735788	24985116	57.89%	5.082%
27	4.194	528	530	532	rVV	24376222	12508340	28.98%	2.544%
28	4.221	534	535	539	rBV3	2067722	1276469	2.96%	0.260%
29	4.274	541	545	547	rBV3	8971122	10024526	23.23%	2.039%
30	4.317	551	553	554	rVB	4834352	2838857	6.58%	0.577%
31	4.333	554	556	558	rBV2	5026111	2960079	6.86%	0.602%
32	4.355	558	560	562	rBV2	4830737	3347359	7.76%	0.681%
33	4.408	565	570	572	rBV	28552789	35931224	83.25%	7.308%
34	4.435	572	575	576	rVV	20443039	11109284	25.74%	2.260%
35	4.493	582	586	591	rBV5	11889312	17343987	40.19%	3.528%
36	4.542	591	595	596	rBV2	11847143	9747492	22.59%	1.983%
37	4.563	598	599	600	rVV	5746667	2150499	4.98%	0.437%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	4.595	603	605	606	rBV2	5197455	3214982	7.45%	0.654%
39	4.638	606	613	616	rBV2	24092547	43159017	100.00%	8.779%
40	4.712	625	627	633	rBV4	10188710	14122037	32.72%	2.872%
41	4.755	633	635	636	rVV2	4396735	3848002	8.92%	0.783%
42	4.766	636	637	639	rVB	7873264	2816304	6.53%	0.573%
43	4.809	639	645	647	rBV2	21180682	26177501	60.65%	5.325%
44	4.825	647	648	649	rVV	7000034	3795796	8.79%	0.772%
45	4.851	649	653	656	rVB	21312786	26724022	61.92%	5.436%
46	4.878	656	658	659	rBV2	2987414	2116167	4.90%	0.430%
47	4.926	665	667	673	rVB5	7721245	9406180	21.79%	1.913%
48	4.974	673	676	678	rBV2	5126783	4280981	9.92%	0.871%
49	5.006	678	682	684	rVV4	4624271	5118543	11.86%	1.041%
50	5.060	687	692	694	rBV2	22836123	21297542	49.35%	4.332%
51	5.081	694	696	700	rVB2	3744949	2680908	6.21%	0.545%
52	5.124	702	704	707	rBV3	6175344	5969846	13.83%	1.214%
53	5.225	721	723	727	rVB3	3487710	3218707	7.46%	0.655%
54	5.268	727	731	734	rVB	18067313	13967497	32.36%	2.841%
55	5.354	744	747	752	rVB2	5223456	7152492	16.57%	1.455%
56	5.487	769	772	776	rVV2	11767890	10247403	23.74%	2.084%
57	5.541	780	782	785	rBV	2091381	1901982	4.41%	0.387%
58	5.792	826	829	840	rVB2	9019148	14476480	33.54%	2.945%
59	5.931	848	855	859	rBV	17462199	24039321	55.70%	4.890%
60	6.091	881	885	887	rBV	8489476	9159597	21.22%	1.863%
61	6.160	896	898	904	rBV2	6395619	8491224	19.67%	1.727%
62	6.251	911	915	920	rVB	17281366	16714494	38.73%	3.400%
63	6.321	925	928	937	rVB4	7757967	12084063	28.00%	2.458%
64	6.566	972	974	978	rBV	3710828	3422770	7.93%	0.696%

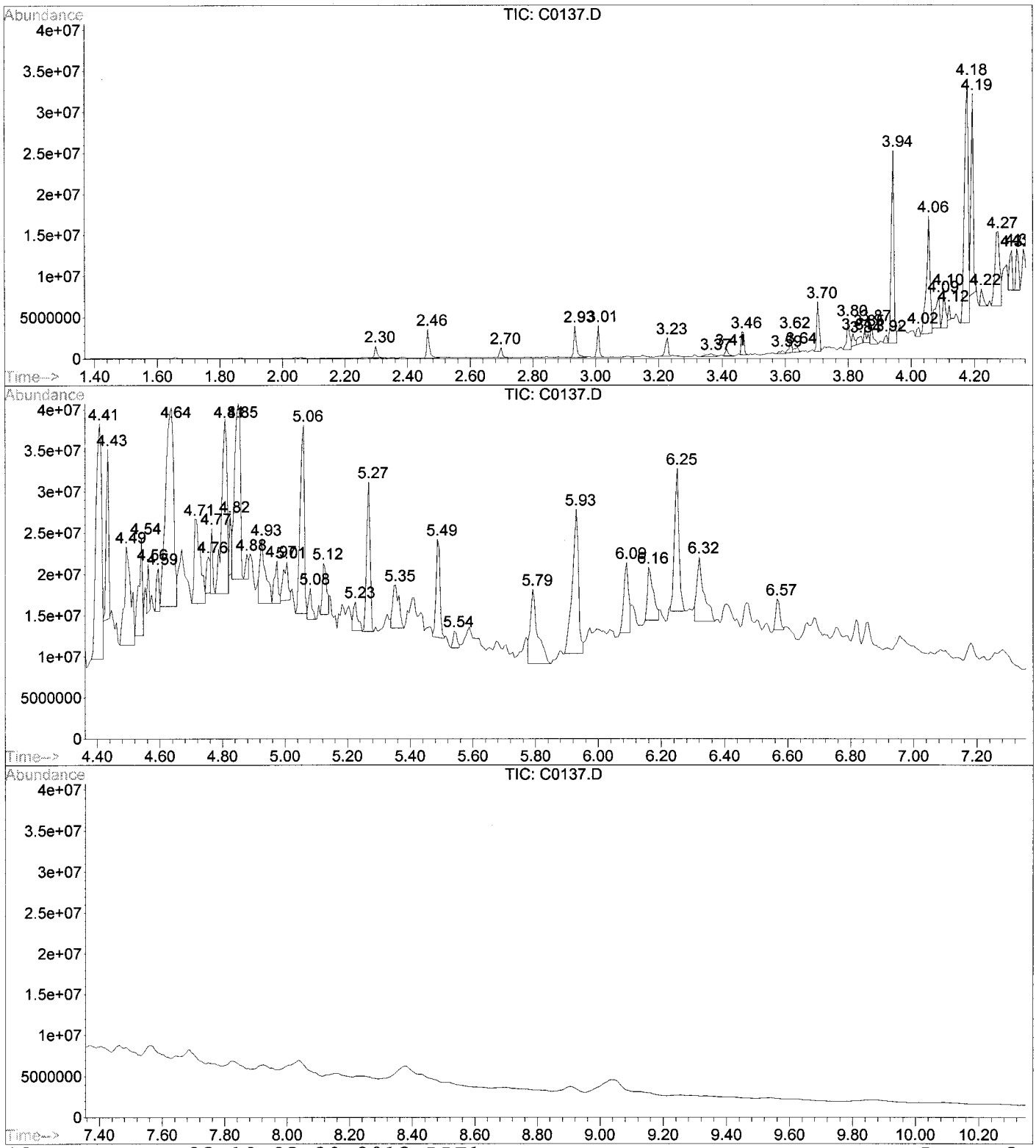
Sum of corrected areas: 491637871

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

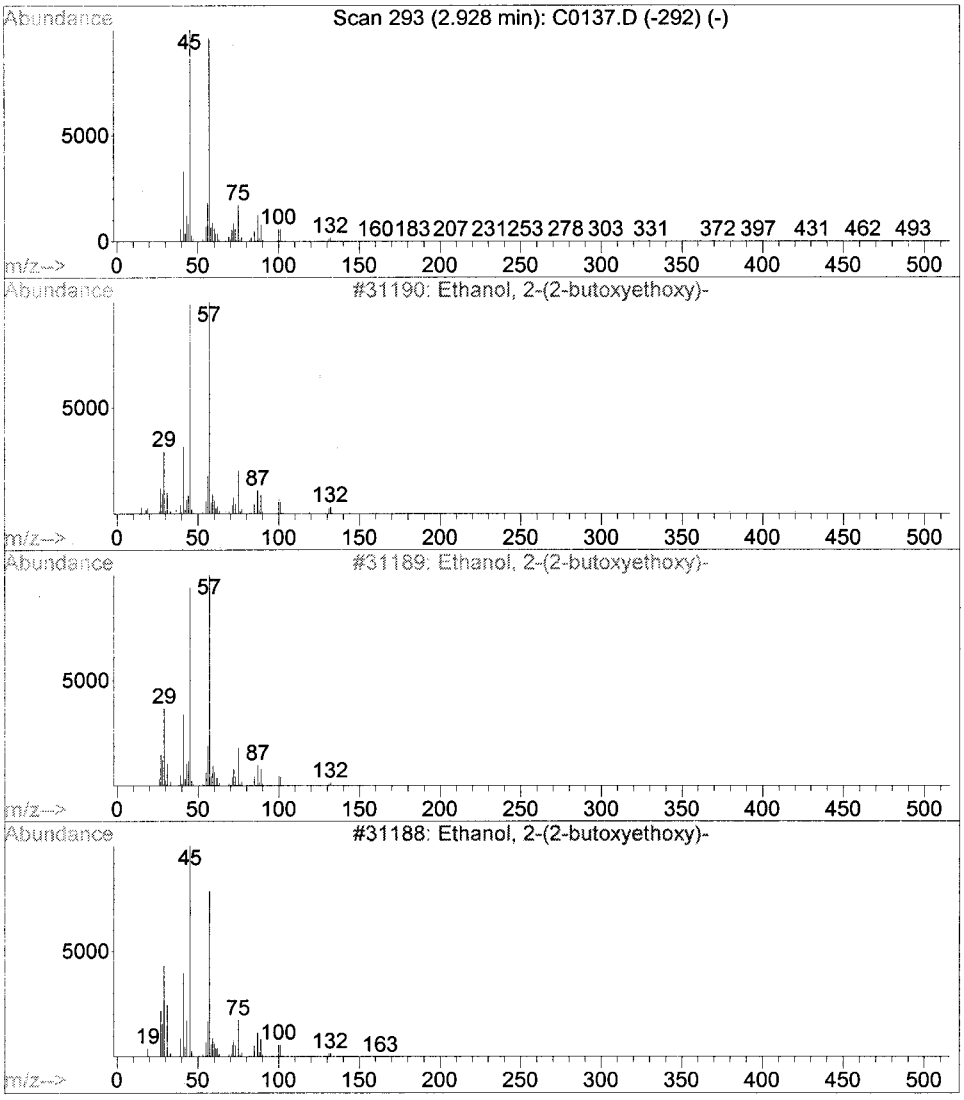
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

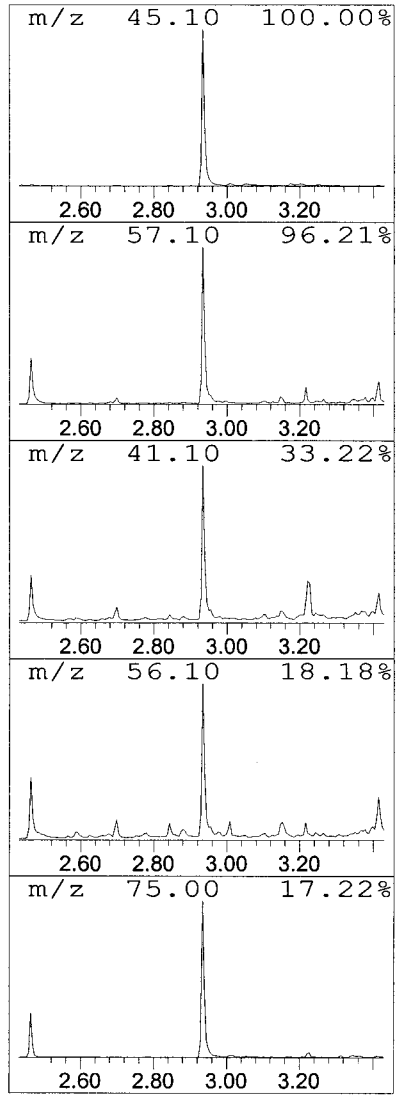
****

Peak Number 1 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.93	49.17 UG	2220260	Naphthalene-d8	3.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-(2-butoxyethoxy)-	162	C8H18O3	000112-34-5	90
2	Ethanol, 2-(2-butoxyethoxy)-	162	C8H18O3	000112-34-5	90
3	Ethanol, 2-(2-butoxyethoxy)-	162	C8H18O3	000112-34-5	90
4	Ethanol, 2-(2-butoxyethoxy)-	162	C8H18O3	000112-34-5	72
5	Ethanol, 2-[2-(2-butoxyethoxy)et...	206	C10H22O4	000143-22-6	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

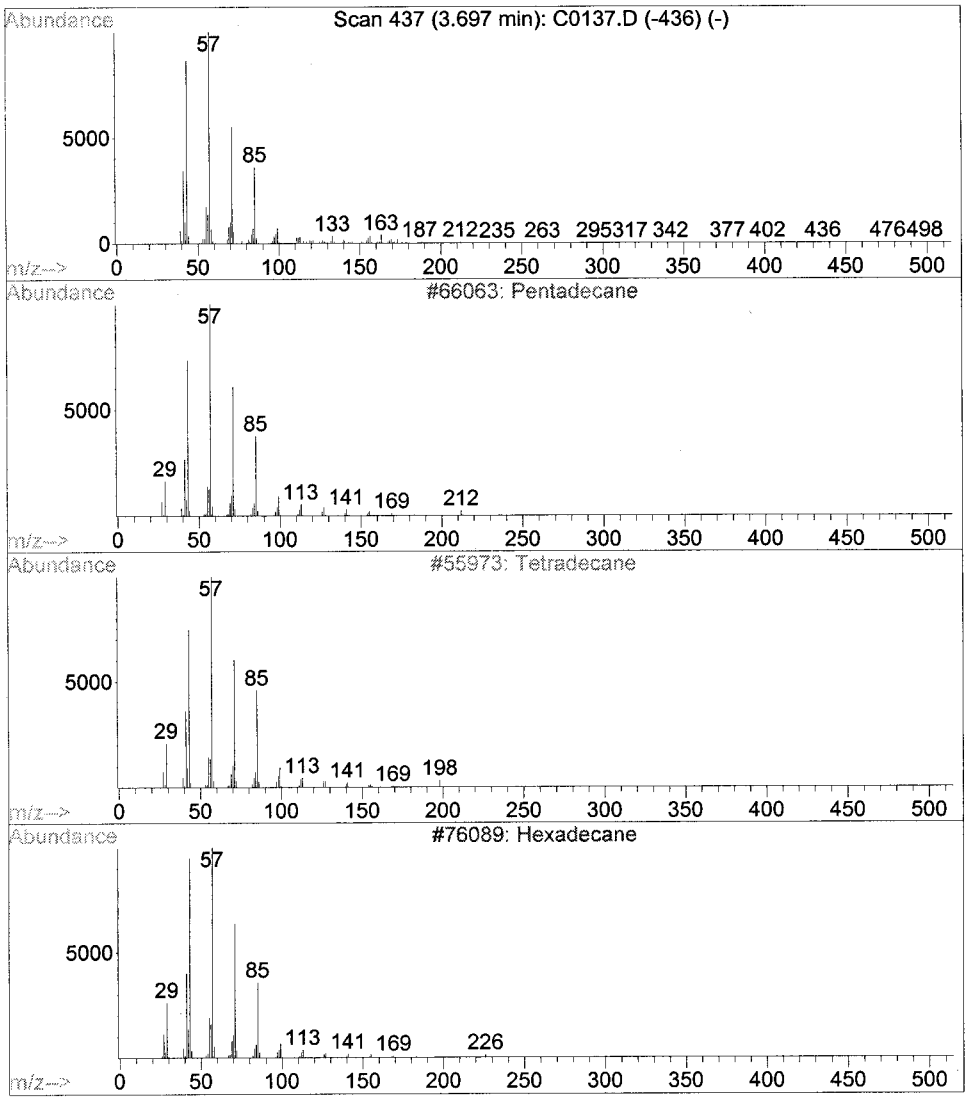
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

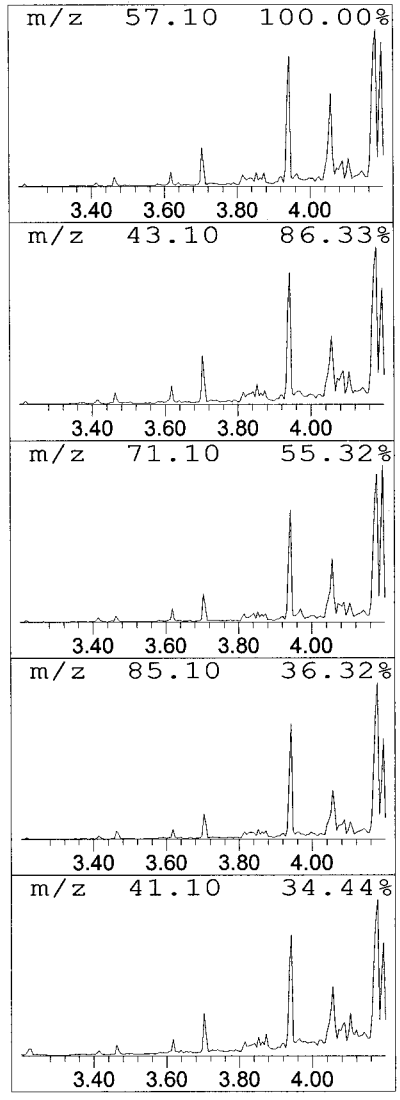
****

Peak Number 2 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.70	53.87 UG	3237720	Acenaphthene-d10	3.80

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane	212	C15H32	000629-62-9	94
2	Tetradecane	198	C14H30	000629-59-4	91
3	Hexadecane	226	C16H34	000544-76-3	90
4	10-Methylnonadecane	282	C20H42	056862-62-5	90
5	Tetradecane	198	C14H30	000629-59-4	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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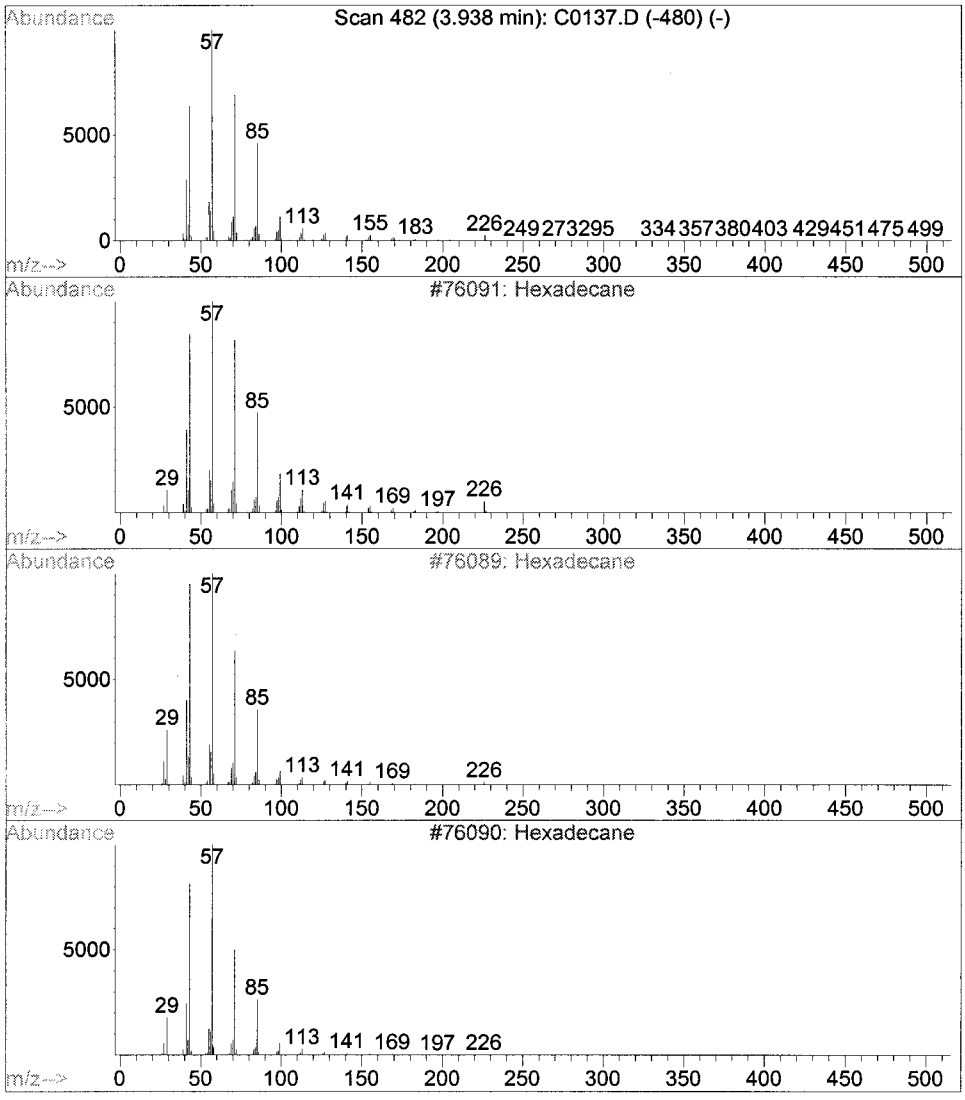
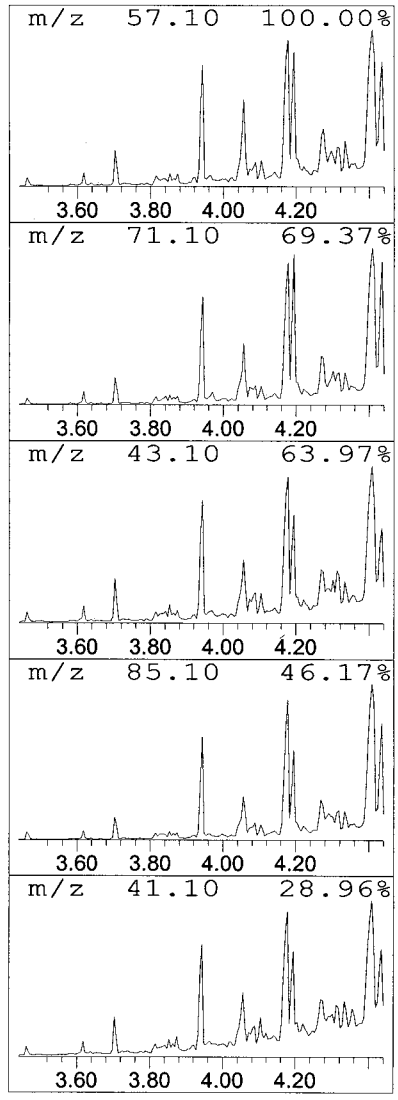
Peak Number 3 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.94	230.73 UG	13868500	Acenaphthene-d10	3.80

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	99
2	Hexadecane	226	C16H34	000544-76-3	97
3	Hexadecane	226	C16H34	000544-76-3	97
4	Hexadecane	226	C16H34	000544-76-3	96
5	Heptadecane	240	C17H36	000629-78-7	96





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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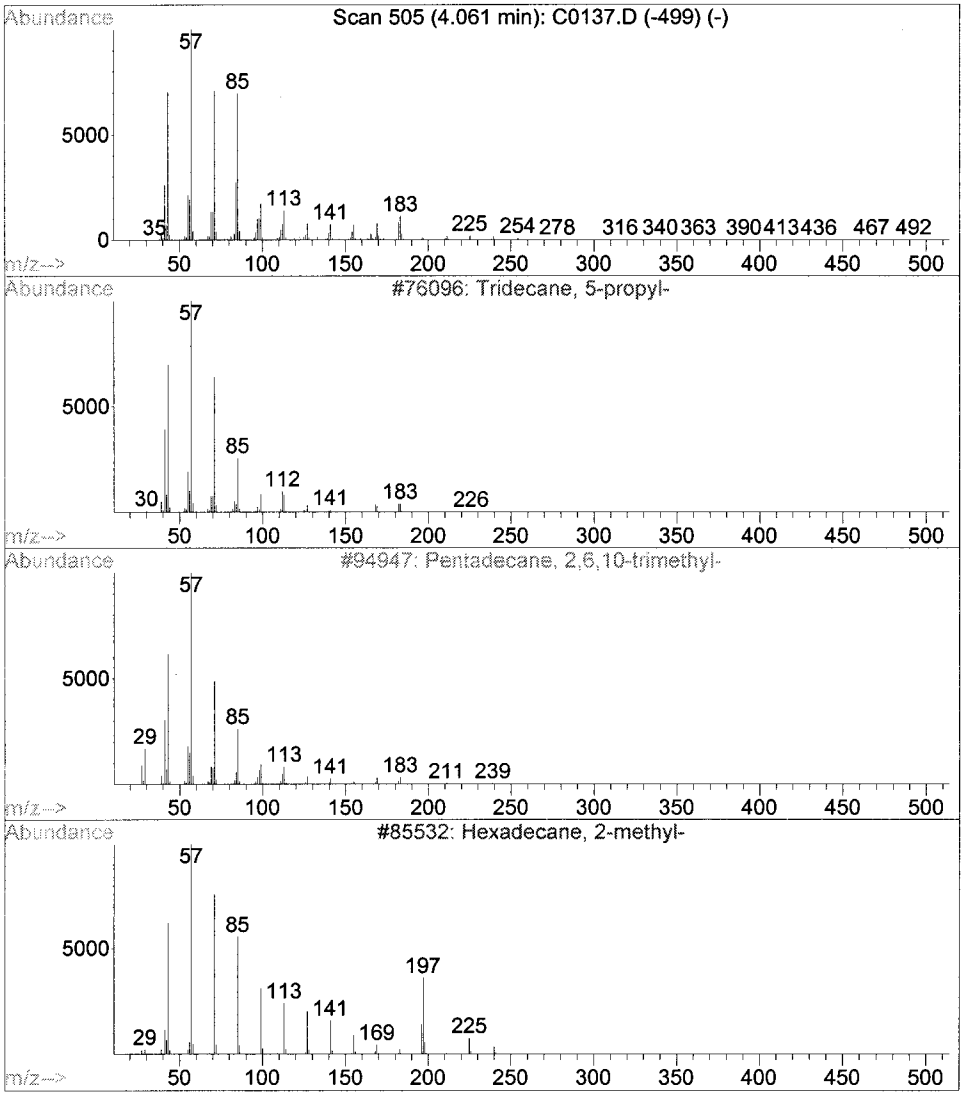
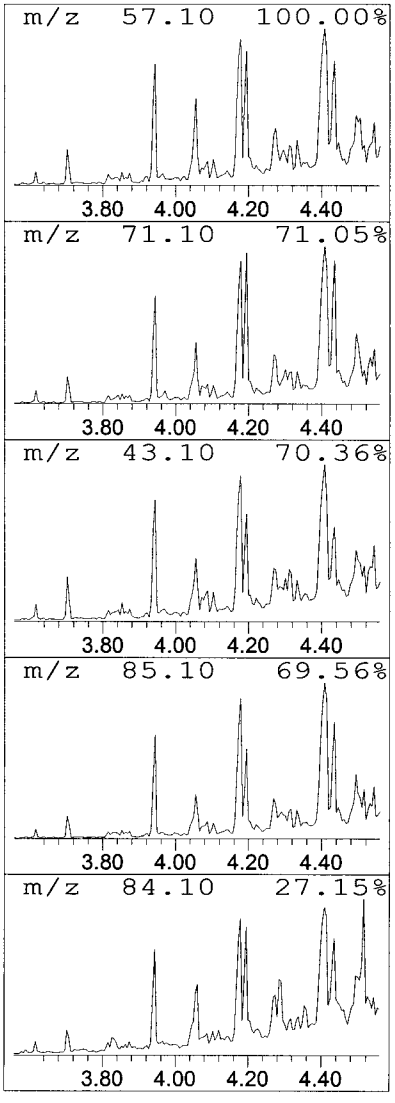
Peak Number 4 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.06	187.66 UG	11279300	Acenaphthene-d10	3.80

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane, 5-propyl-	226	C16H34	055045-11-9	91
2	Pentadecane, 2,6,10-trimethyl-	254	C18H38	003892-00-0	87
3	Hexadecane, 2-methyl-	240	C17H36	001560-92-5	81
4	Octadecane	254	C18H38	000593-45-3	80
5	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	74





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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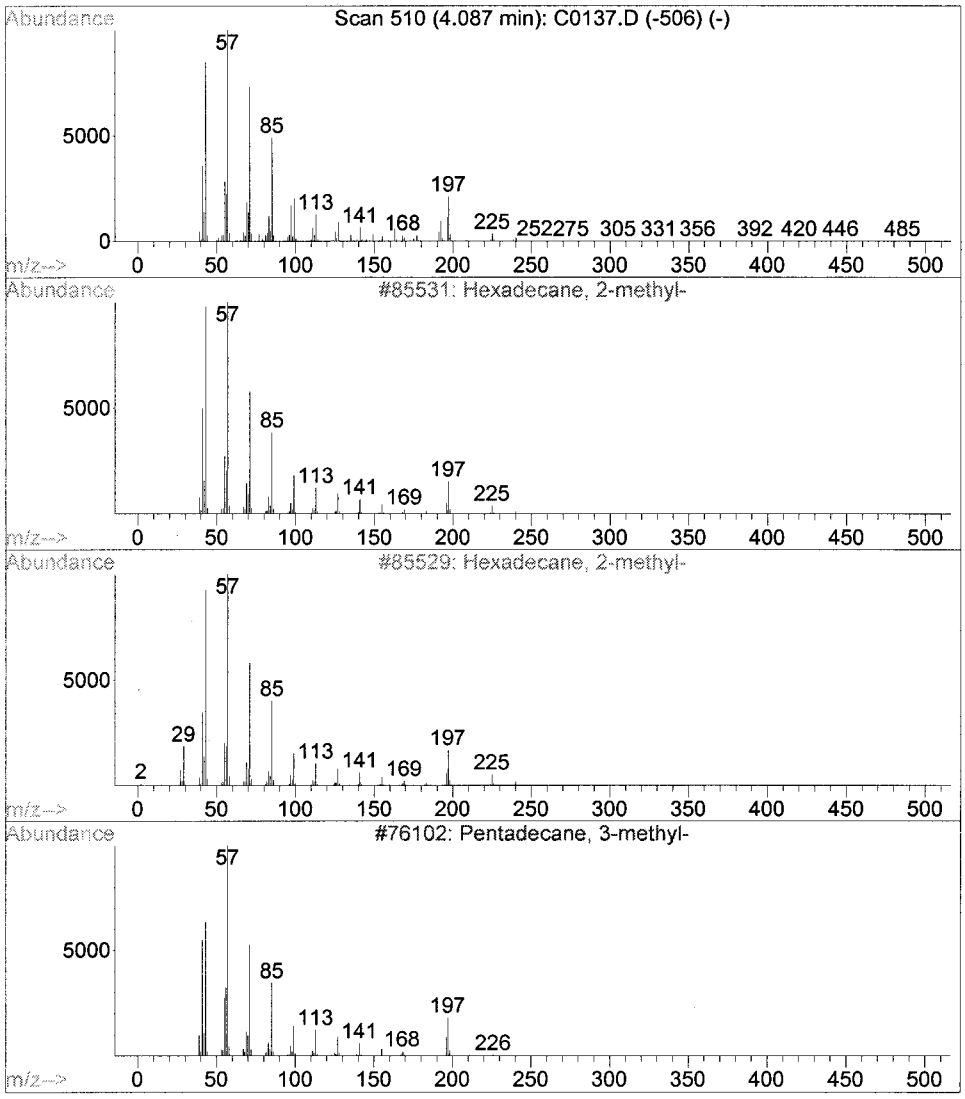
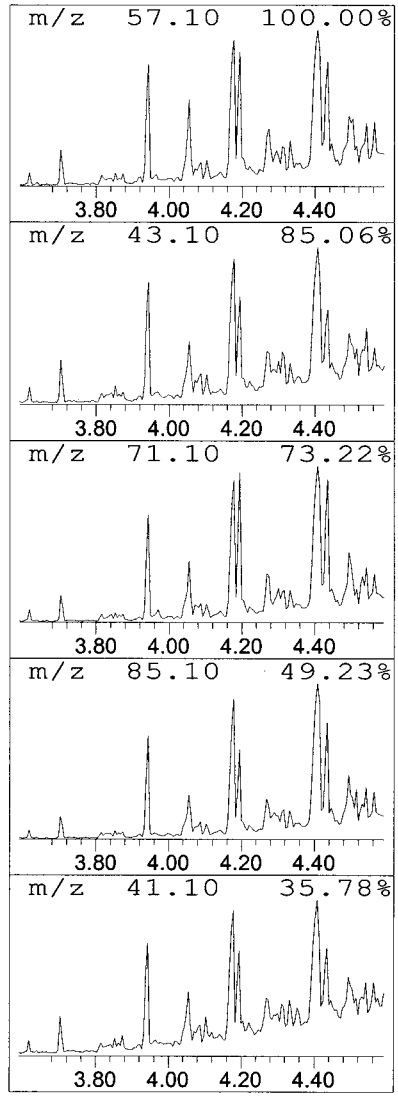
Peak Number 5 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.09	61.91 UG	3721390	Acenaphthene-d10	3.80

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2-methyl-	240	C17H36	001560-92-5	93
2	Hexadecane, 2-methyl-	240	C17H36	001560-92-5	93
3	Pentadecane, 3-methyl-	226	C16H34	002882-96-4	90
4	Disulfide, di-tert-dodecyl	402	C24H50S2	027458-90-8	89
5	Pentadecane, 8-hexyl-	296	C21H44	013475-75-7	80





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

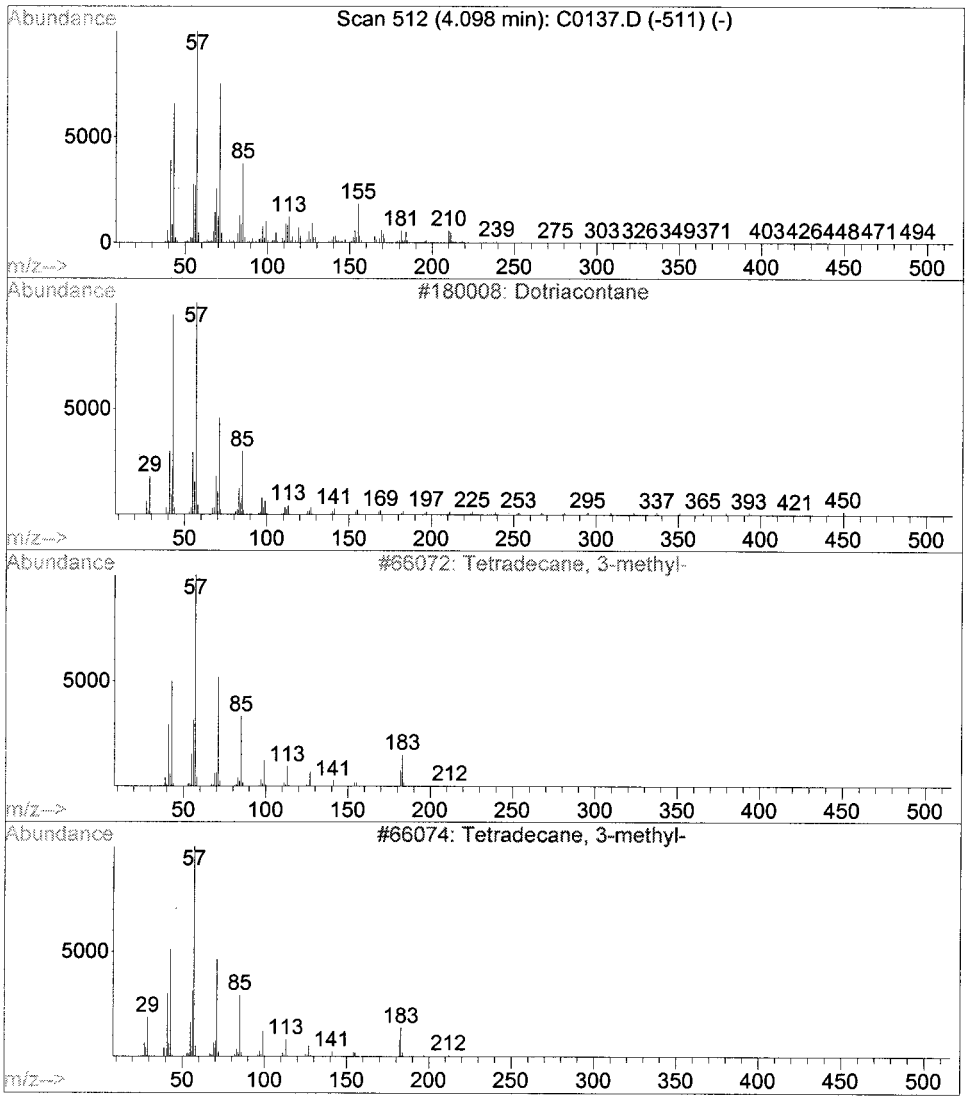
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

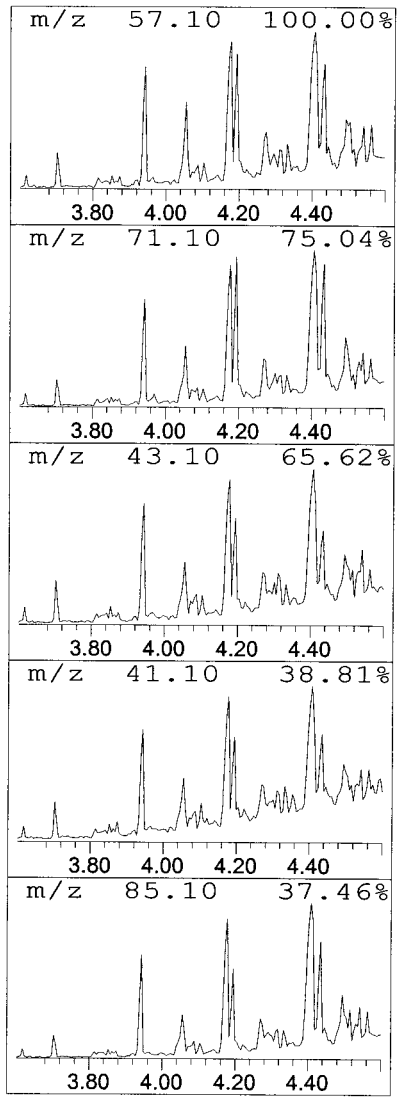
****

Peak Number 6 Unknown Hydrocarbon Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.10	50.82 UG	3054700	Acenaphthene-d10	3.80

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dotriacontane	451	C32H66	000544-85-4	86
2	Tetradecane, 3-methyl-	212	C15H32	018435-22-8	76
3	Tetradecane, 3-methyl-	212	C15H32	018435-22-8	74
4	Tetratetracontane	619	C44H90	007098-22-8	74
5	Tritetracontane	605	C43H88	007098-21-7	74





E13-09196 0127

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

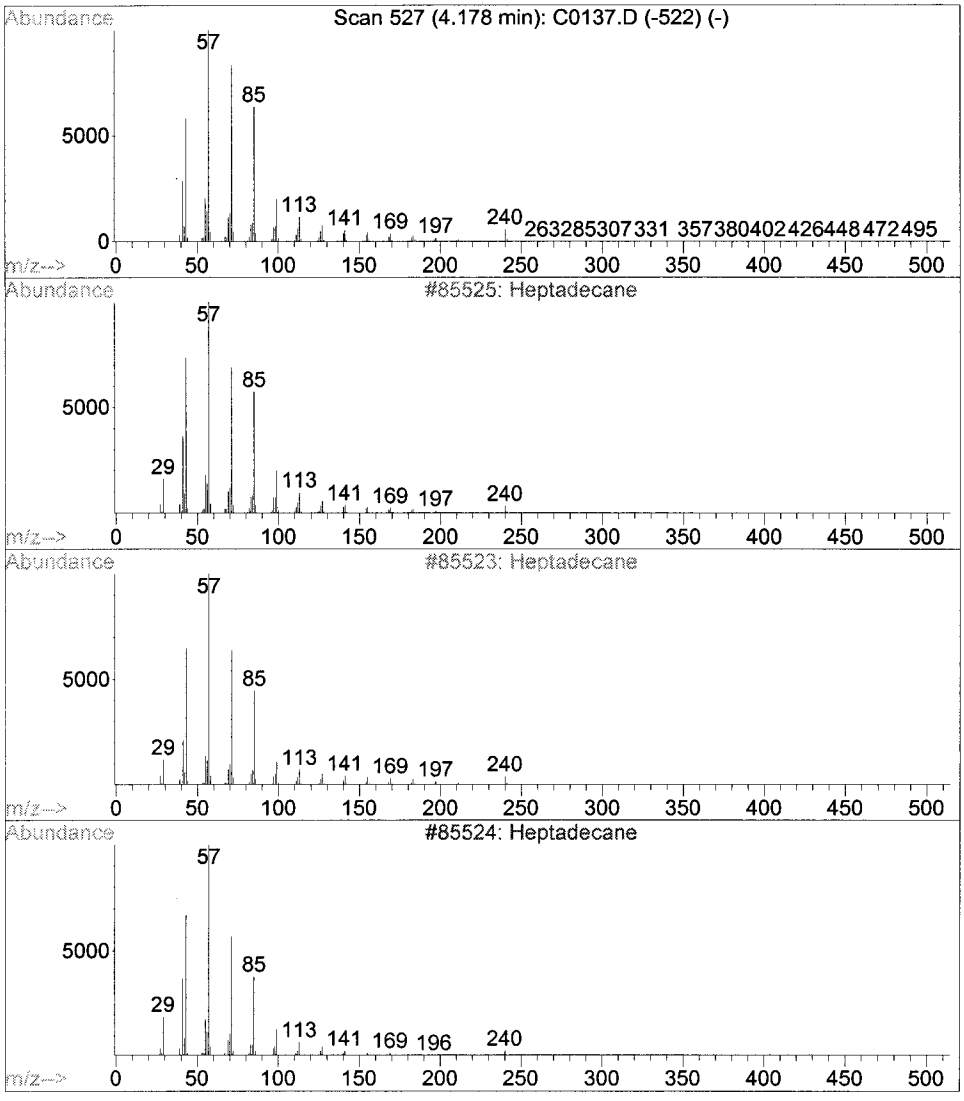
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

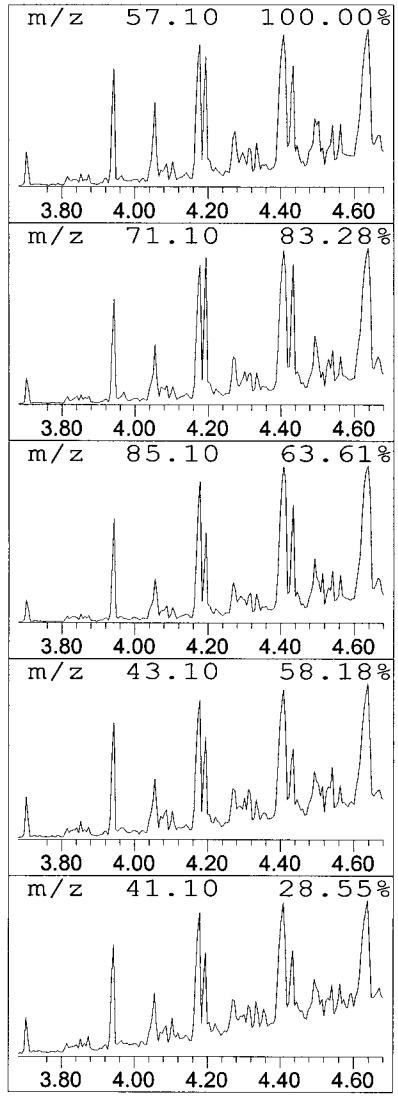
****

Peak Number 7 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.18	102.53 UG	24985100	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane	240	C17H36	000629-78-7	98
2	Heptadecane	240	C17H36	000629-78-7	98
3	Heptadecane	240	C17H36	000629-78-7	96
4	Hexadecane	226	C16H34	000544-76-3	91
5	Heneicosane	296	C21H44	000629-94-7	90





Library Search Compound Report

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Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

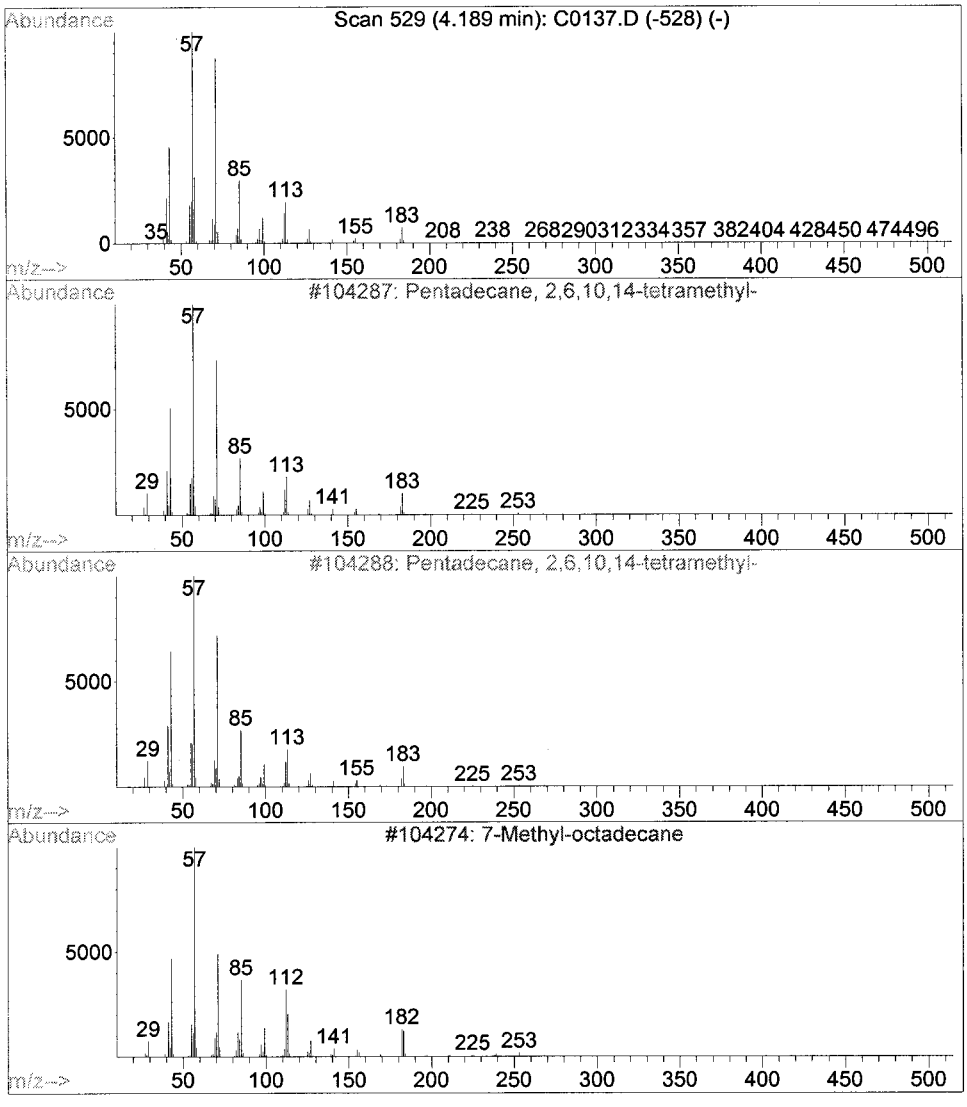
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

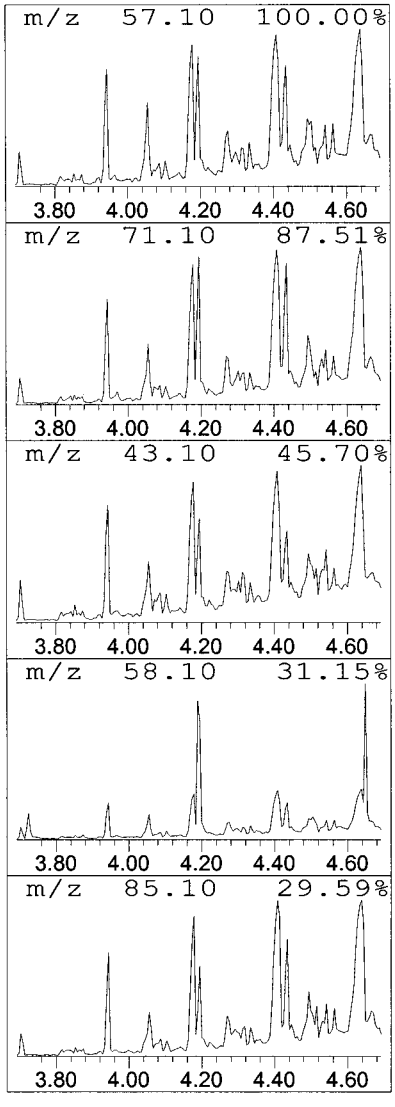
****

Peak Number 8 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.19	51.33 UG	12508300	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	95
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	94
3	7-Methyl-octadecane	268	C19H40	1000192-63-3	83
4	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	80
5	Tridecane, 5-propyl-	226	C16H34	055045-11-9	76





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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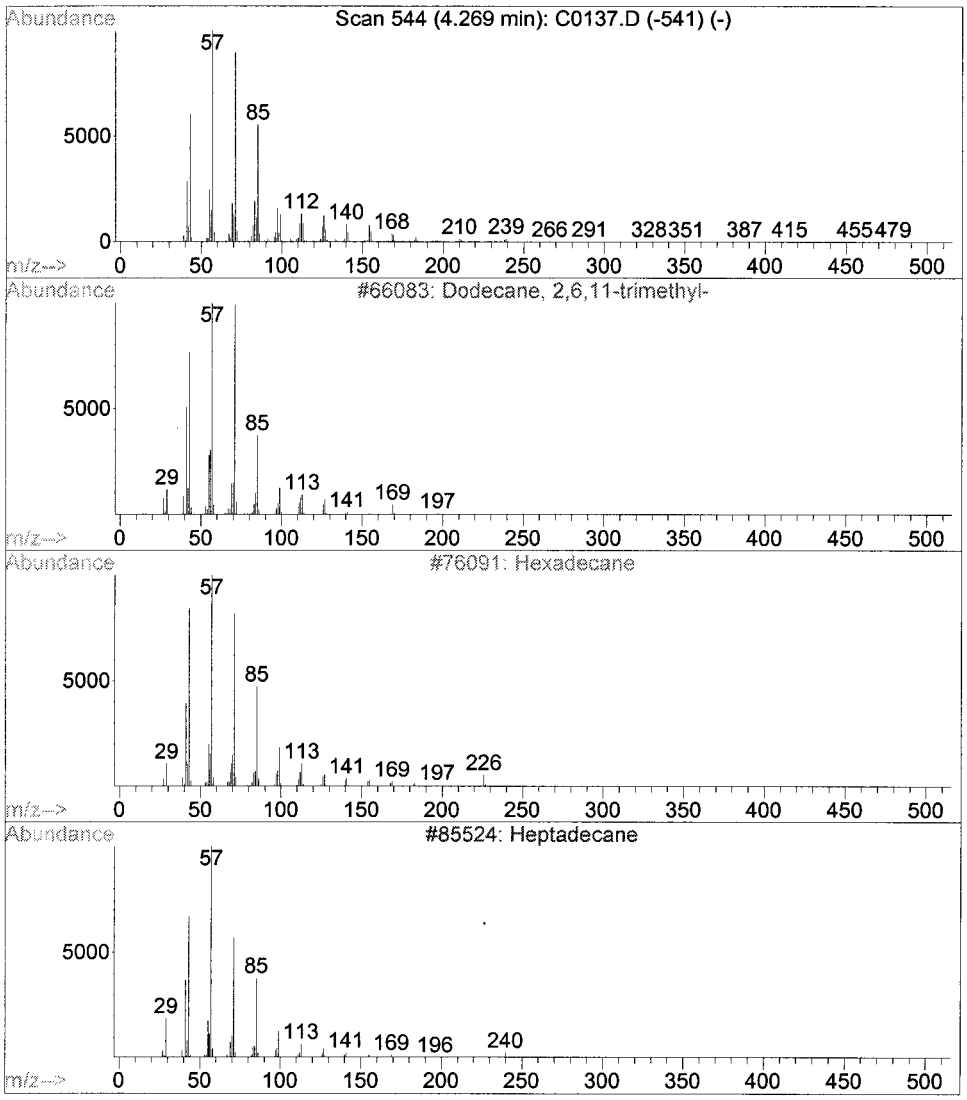
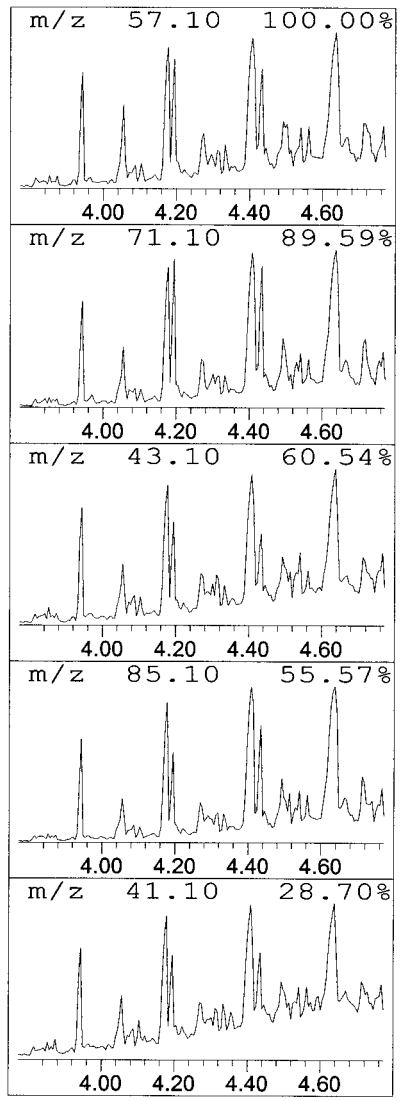
Peak Number 9 Unknown Hydrocarbon Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.27	41.14 UG	10024500	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	93
2	Hexadecane	226	C16H34	000544-76-3	87
3	Heptadecane	240	C17H36	000629-78-7	87
4	Tetracosane	338	C24H50	000646-31-1	87
5	Heptadecane, 8-methyl-	254	C18H38	013287-23-5	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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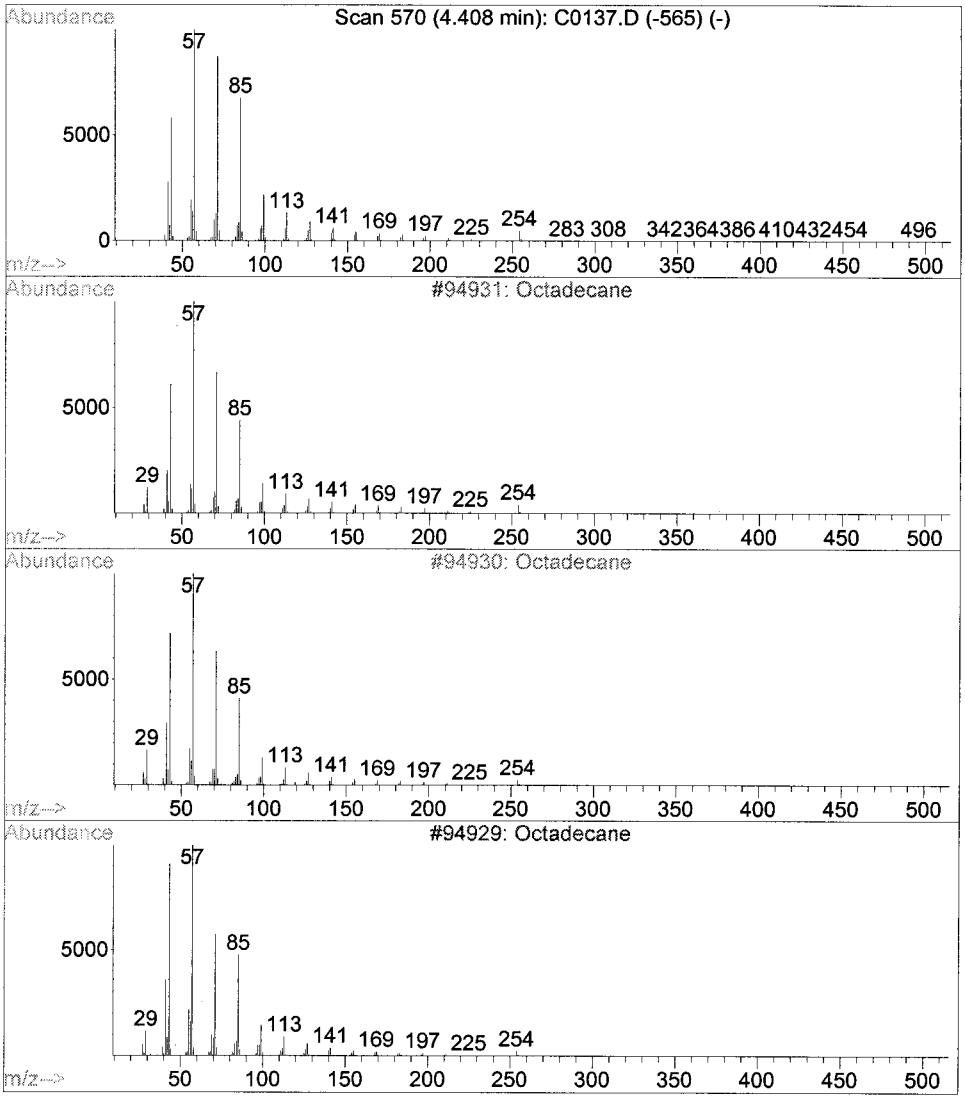
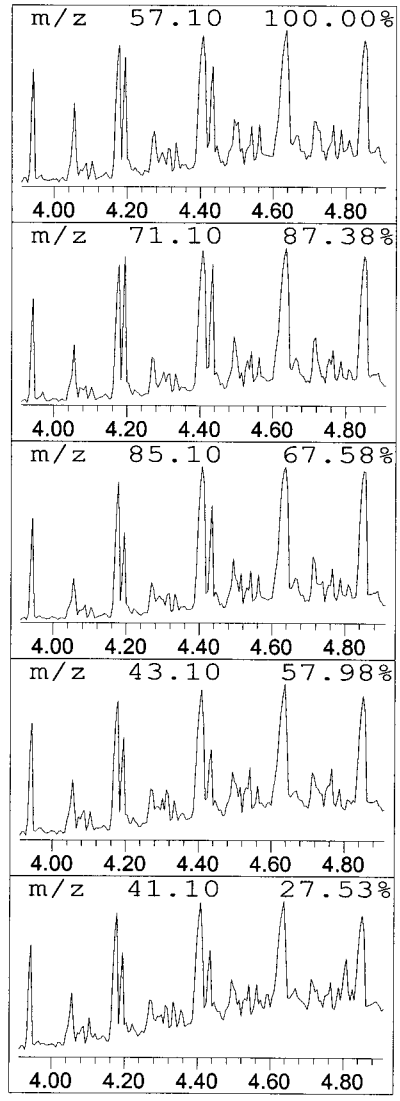
Peak Number 10 Unknown Hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.41	147.45 UG	35931200	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane	254	C18H38	000593-45-3	97
2	Octadecane	254	C18H38	000593-45-3	94
3	Octadecane	254	C18H38	000593-45-3	93
4	Heptadecane	240	C17H36	000629-78-7	91
5	Heptadecane	240	C17H36	000629-78-7	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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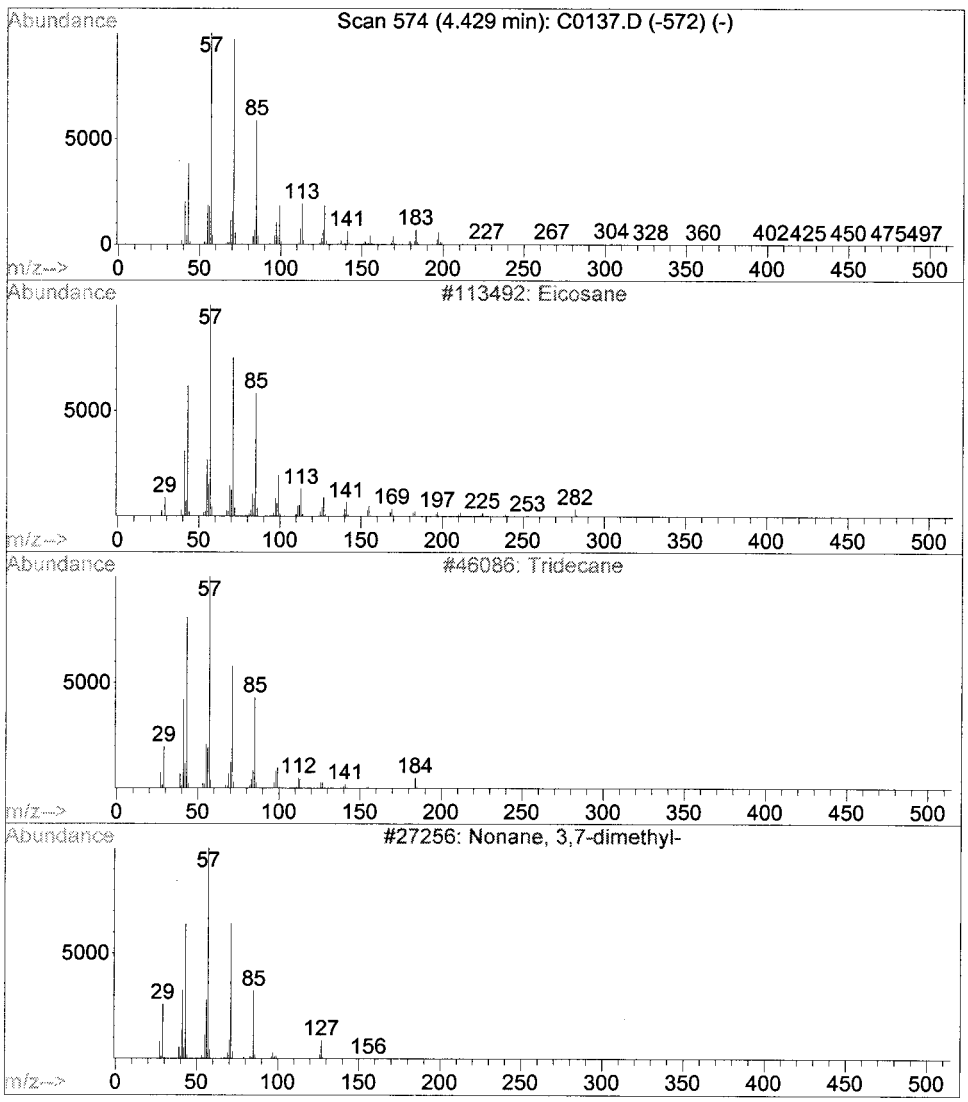
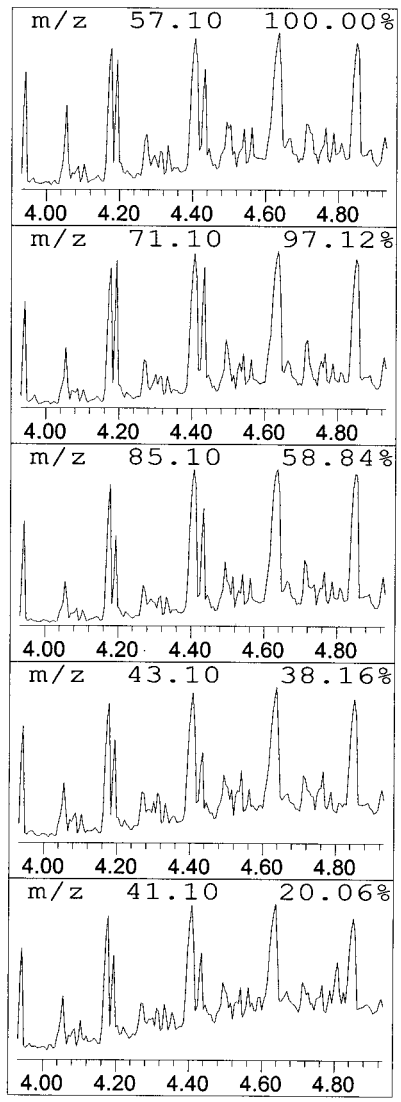
Peak Number 11 Unknown Hydrocarbon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.43	45.59 UG	11109300	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	91
2	Tridecane	184	C13H28	000629-50-5	81
3	Nonane, 3,7-dimethyl-	156	C11H24	017302-32-8	76
4	Dodecane, 2-methyl-8-propyl-	226	C16H34	055045-07-3	74
5	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	74





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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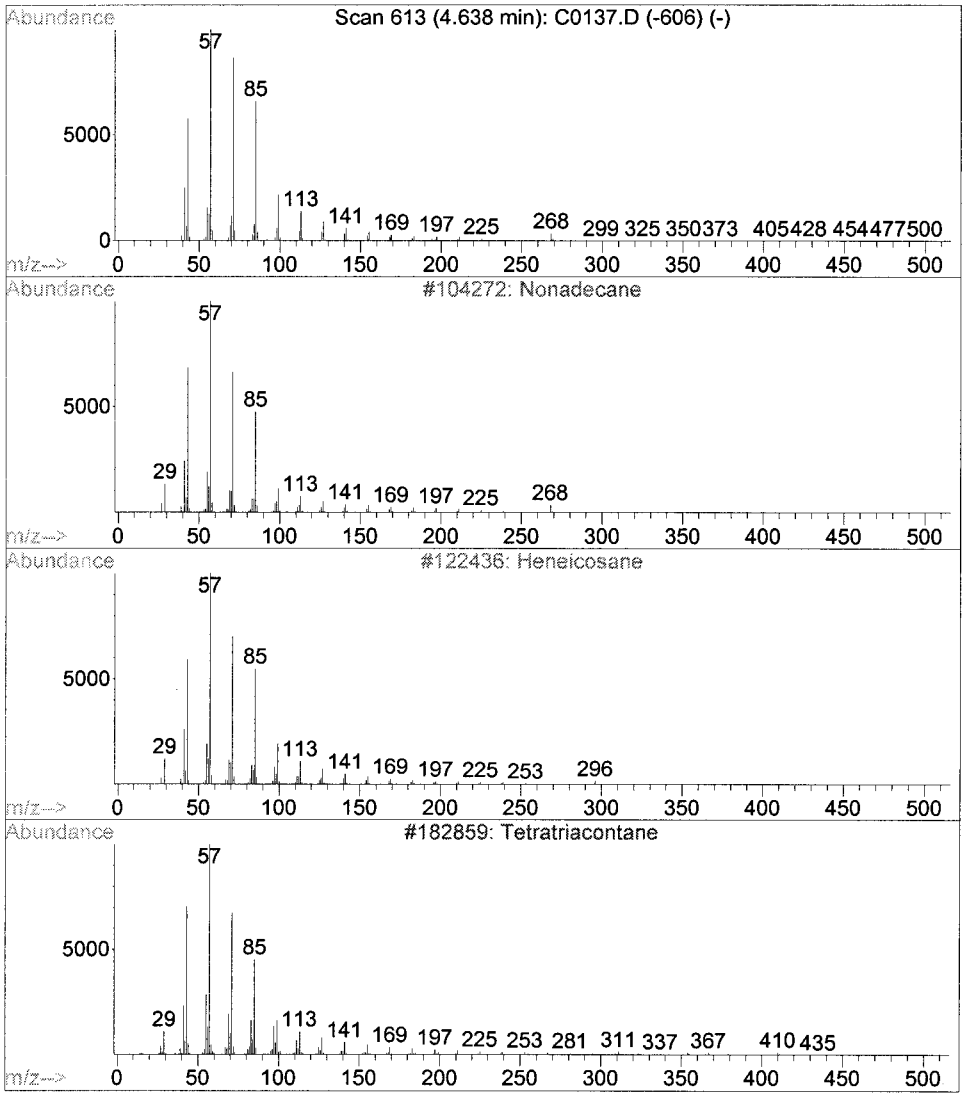
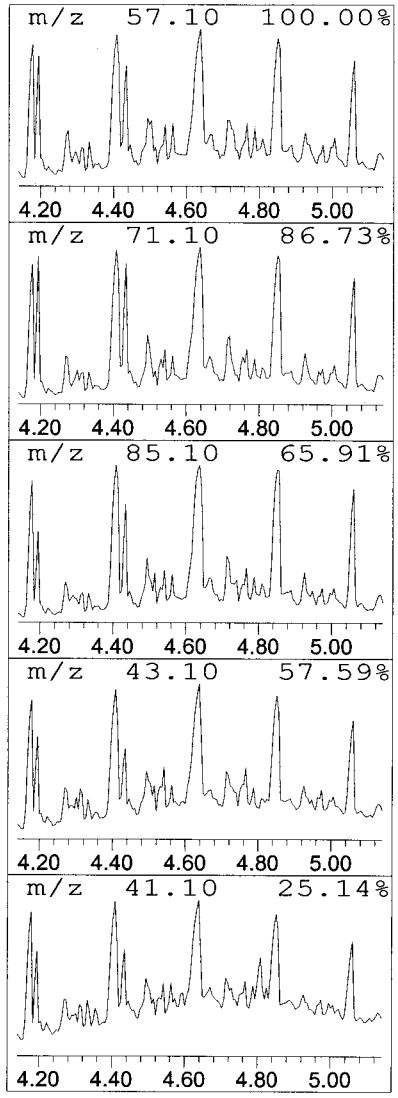
Peak Number 12 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.64	177.11 UG	43159000	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonadecane	268	C19H40	000629-92-5	93
2	Heneicosane	296	C21H44	000629-94-7	91
3	Tetratriacontane	479	C34H70	014167-59-0	90
4	Hexadecane	226	C16H34	000544-76-3	87
5	Hexadecane	226	C16H34	000544-76-3	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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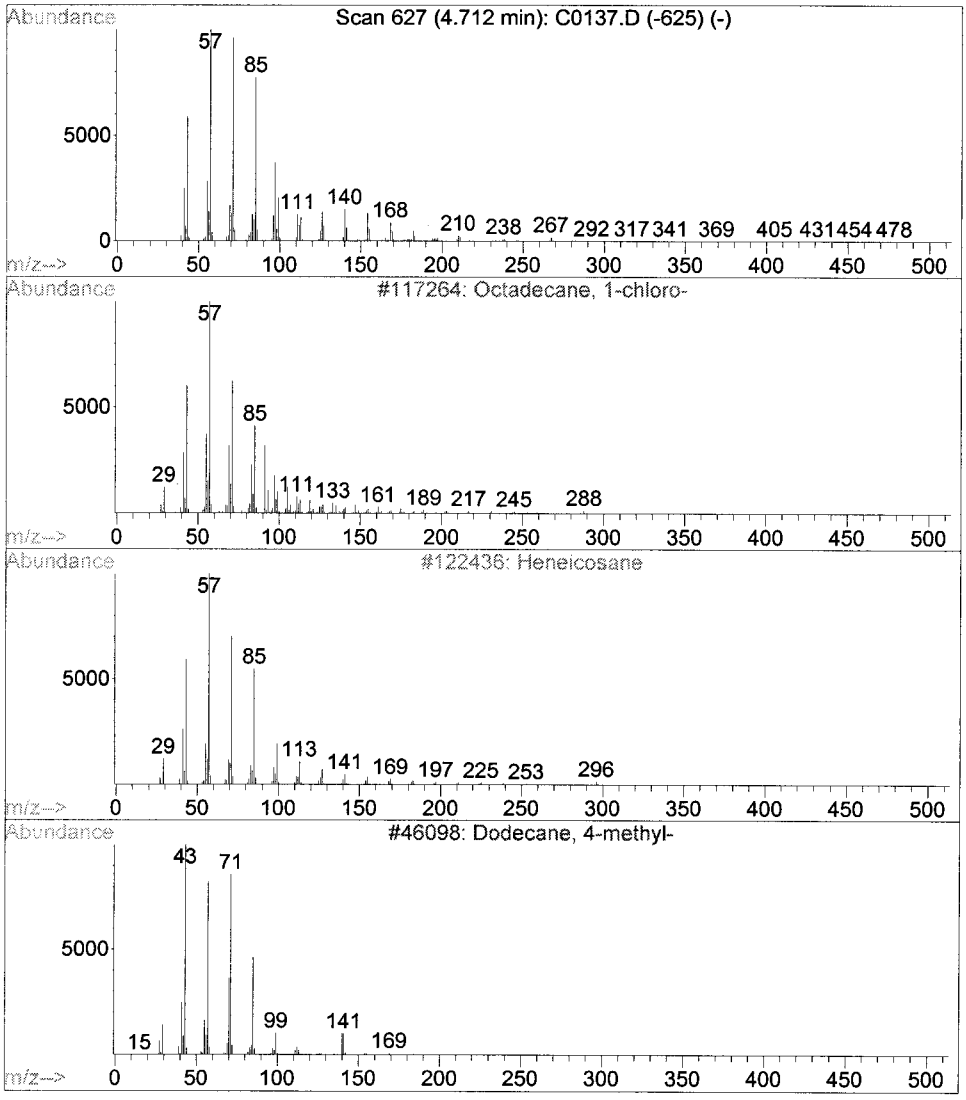
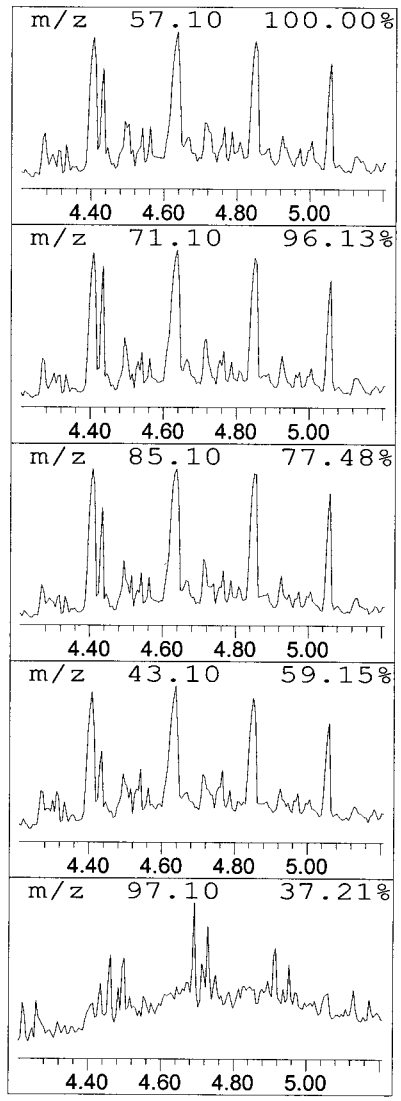
Peak Number 13 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.71	57.95 UG	14122000	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane, 1-chloro-	288	C18H37Cl	003386-33-2	83
2	Heneicosane	296	C21H44	000629-94-7	76
3	Dodecane, 4-methyl-	184	C13H28	006117-97-1	76
4	Nonadecane, 9-methyl-	282	C20H42	013287-24-6	72
5	Tetracosane	338	C24H50	000646-31-1	64





Library Search Compound Report

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Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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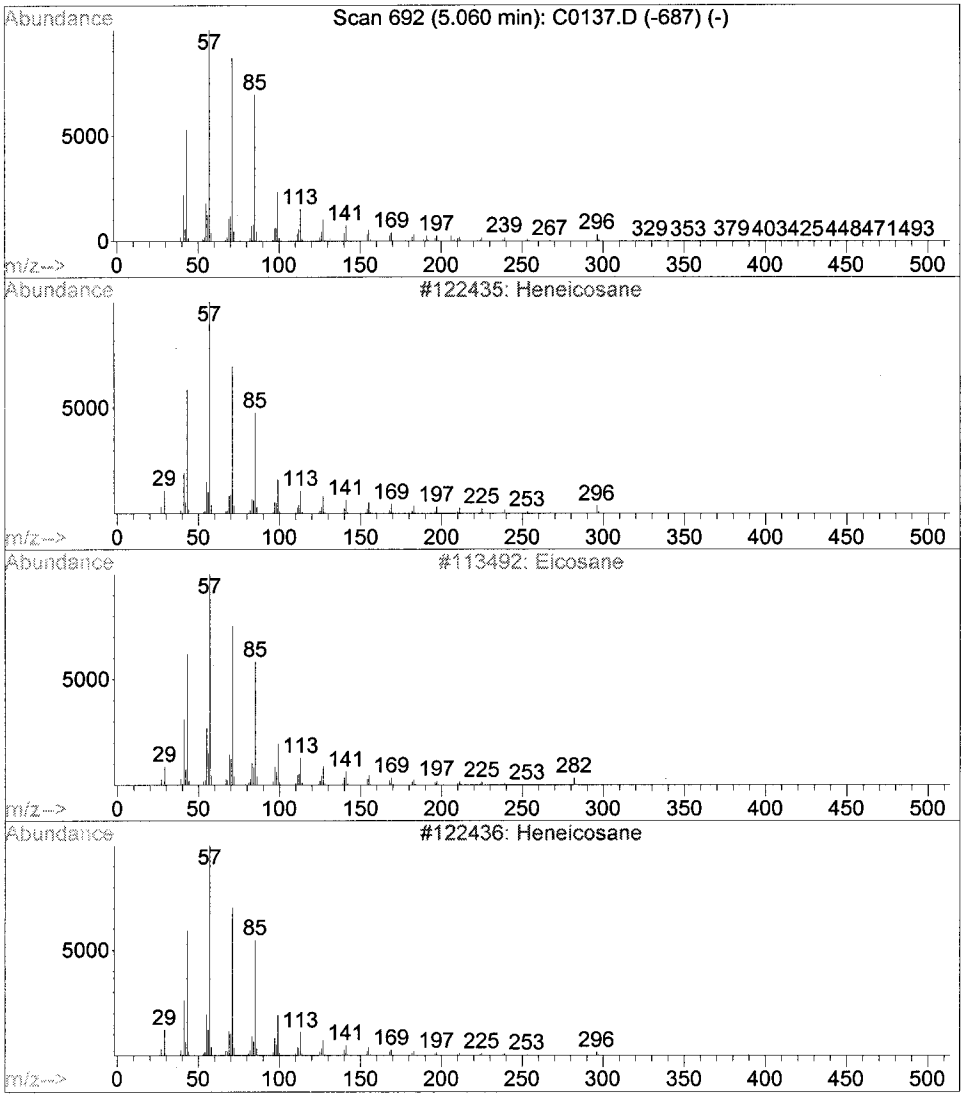
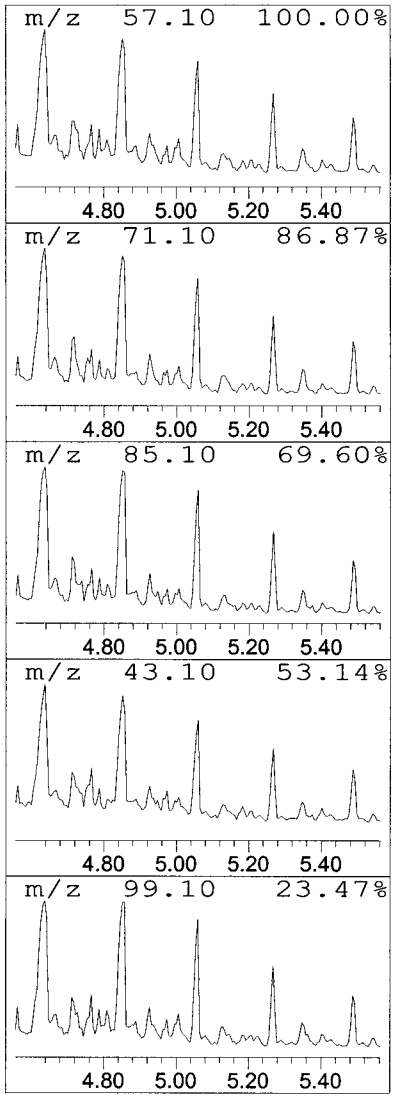
Peak Number 14 Unknown Hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.06	87.40 UG	21297500	Phenanthrene-d10	4.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	95
2	Eicosane	282	C20H42	000112-95-8	91
3	Heneicosane	296	C21H44	000629-94-7	91
4	Heptadecane	240	C17H36	000629-78-7	91
5	Tetratetracontane	619	C44H90	007098-22-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0137.D
Acq On : 20 Sep 2013 19:00
Operator : EDM
Sample : C-2_LOAD,E13-09196-002,Xs,15.23g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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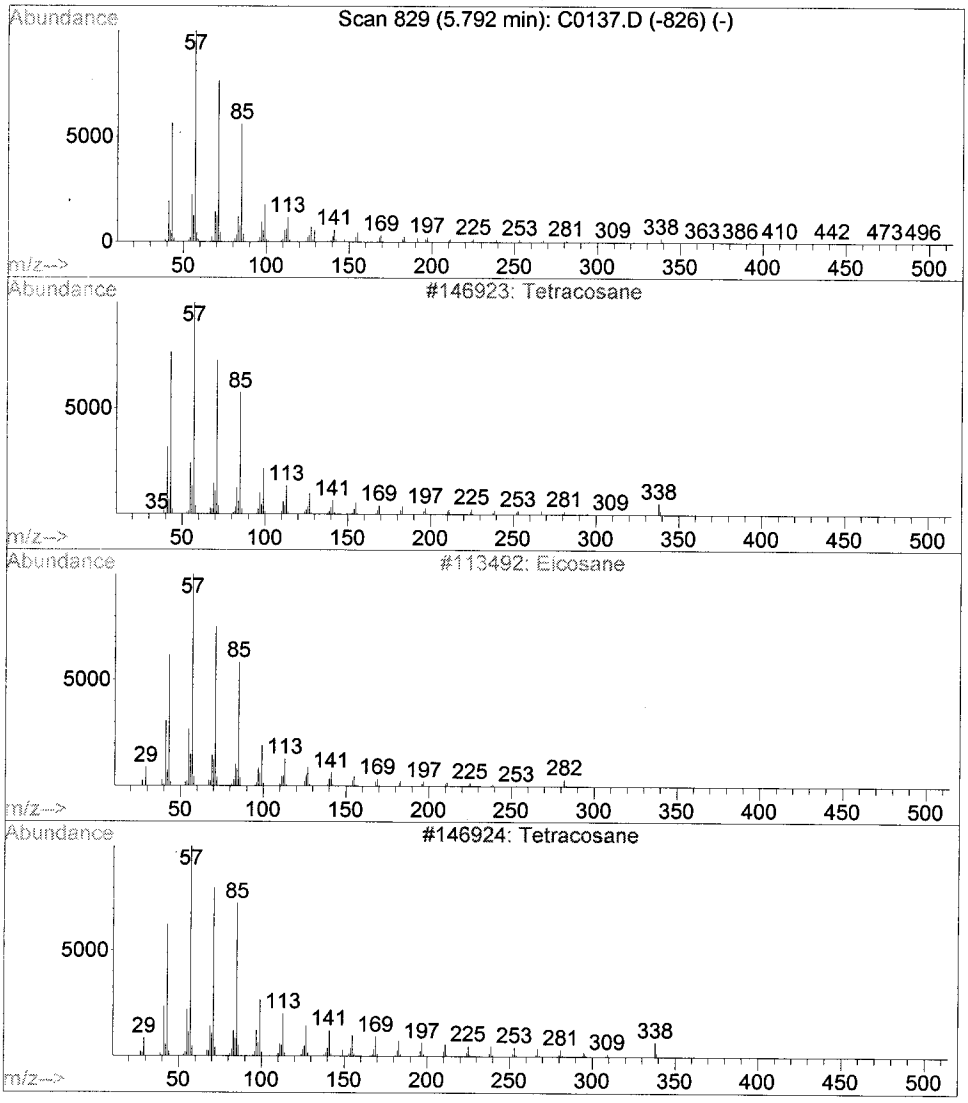
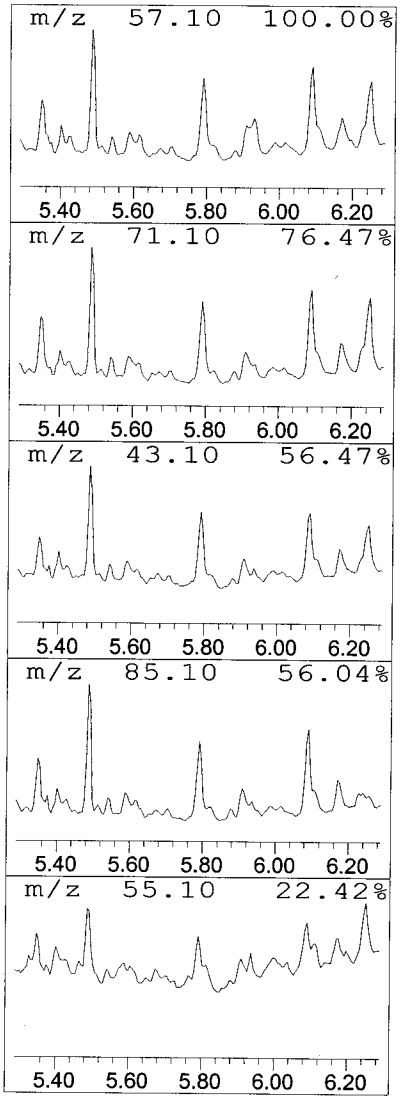
Peak Number 15 Unknown Hydrocarbon Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.79	47.92 UG	14476500	Chrysene-d12	6.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	99
2	Eicosane	282	C20H42	000112-95-8	98
3	Tetracosane	338	C24H50	000646-31-1	97
4	Triacontane	422	C30H62	000638-68-6	96
5	Tetracosane	338	C24H50	000646-31-1	95





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 23 10:07:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

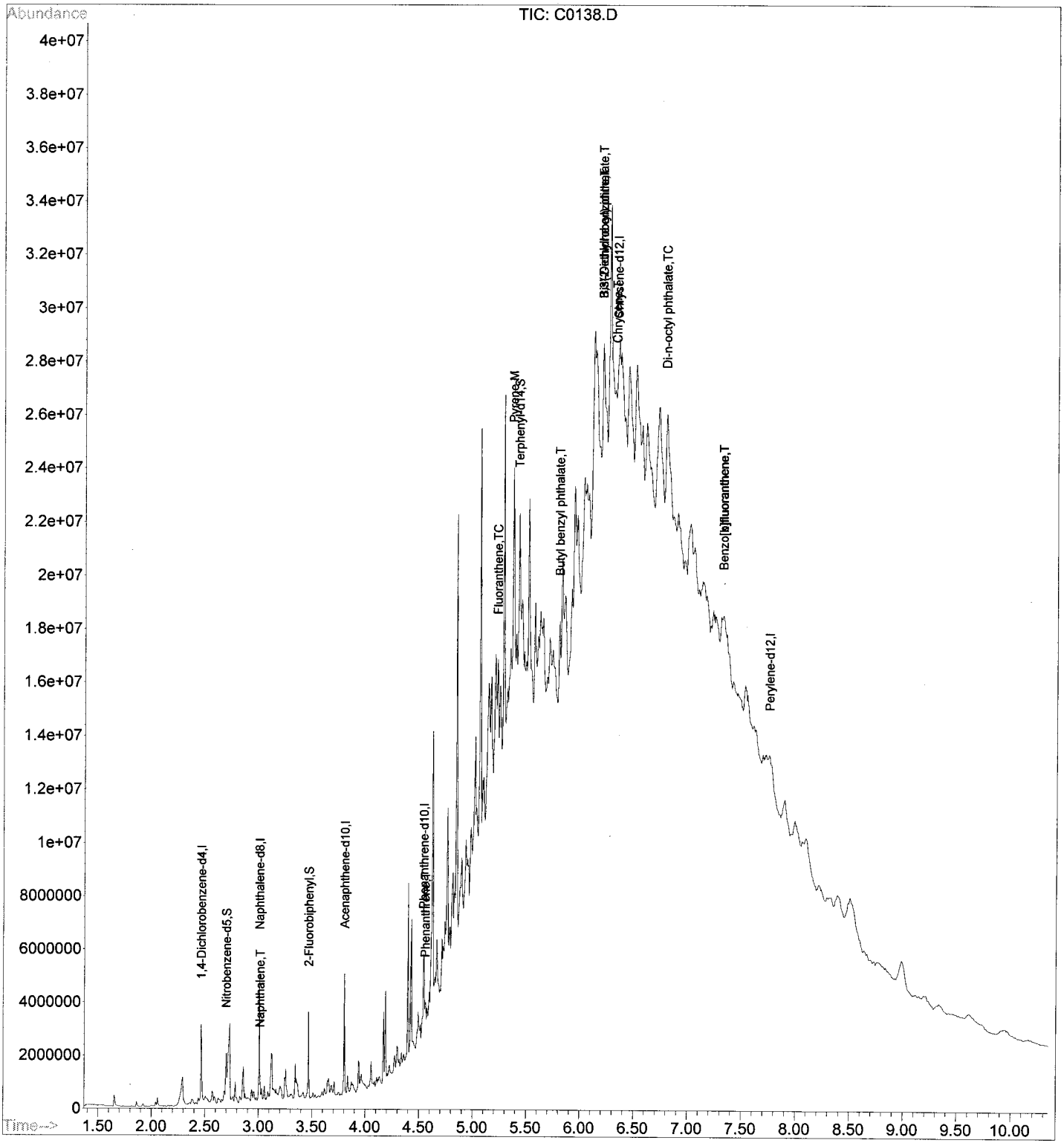
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.46	152	250810	40.00	UG		-0.01
23) Naphthalene-d8	3.01	136	1027273	40.00	UG		-0.02
43) Acenaphthene-d10	3.80	164	518233	40.00	UG		-0.05
66) Phenanthrene-d10	4.55	188	721180	40.00	UG		-0.10
82) Chrysene-d12	6.34	240	790310m	40.00	UG		-0.10
92) Perylene-d12	7.76	264	400842	40.00	UG		-0.02
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#				
6) Phenol-d5	0.00	99	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#				
24) Nitrobenzene-d5	2.70	82	230433	27.72	UG		-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 55.44%				
47) 2-Fluorobiphenyl	3.47	172	468018	26.71	UG		-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 53.42%				
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG		
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#				
84) Terphenyl-d14	5.42	244	462326m	22.07	UG		-0.18
Spiked Amount 50.000	Range 15 - 122		Recovery = 44.14%				
Target Compounds							Qvalue
34) Naphthalene	3.02	128	20341	0.73	UG	#	81
75) Phenanthrene	4.56	178	137837	7.06	UG		98
79) Fluoranthene	5.23	202	291547m	14.14	UG		
83) Pyrene	5.38	202	319969m	12.01	UG		
86) Butyl benzyl phthalate	5.80	149	330651	30.28	UG		92
87) 3,3'-Dichlorobenzidine	6.21	252	25881	3.78	UG	#	1
89) Chrysene	6.33	228	53773	2.63	UG	#	49
90) Bis(2-ethylhexyl) phthalat	6.21	149	24561	1.71	UG	#	16
93) Di-n-octyl phthalate	6.79	149	394110	21.82	UG		97
94) Benzo[b]fluoranthene	7.32	252	229162	14.15	UG	#	56
95) Benzo[k]fluoranthene	7.32	252	182926	12.23	UG	#	66

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 23 10:07:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.652	52	54	68	rVB	428171	350609	3.29%	0.268%
2	2.293	163	174	180	rBV	1082071	1794832	16.87%	1.372%
3	2.464	204	206	211	rVB2	2850476	1712266	16.09%	1.309%
4	2.570	222	226	228	rBV2	436035	392753	3.69%	0.300%
5	2.699	248	250	251	rBV	1568094	965332	9.07%	0.738%
6	2.731	251	256	259	rVB	2867804	3343177	31.41%	2.555%
7	2.784	264	266	267	rBV	738023	392595	3.69%	0.300%
8	2.859	277	280	282	rBV	1262519	985161	9.26%	0.753%
9	2.939	293	295	297	rBV2	445433	385713	3.62%	0.295%
10	3.009	305	308	311	rBV	4708447	2287665	21.50%	1.748%
11	3.057	314	317	320	rVB	529833	341528	3.21%	0.261%
12	3.121	325	329	331	rBV	1621486	1559531	14.65%	1.192%
13	3.201	341	344	350	rVB3	490325	718166	6.75%	0.549%
14	3.254	350	354	358	rBV	1119297	1230587	11.56%	0.940%
15	3.345	368	371	372	rBV	1294564	786605	7.39%	0.601%
16	3.468	389	394	397	rVB	3243393	1567200	14.73%	1.198%
17	3.655	425	429	431	rBV2	566135	614482	5.77%	0.470%
18	3.805	454	457	460	rBV	4444054	2022977	19.01%	1.546%
19	3.837	461	463	466	rBV3	650988	432811	4.07%	0.331%
20	3.938	480	482	484	rBV	1092787	800717	7.52%	0.612%
21	3.965	484	487	497	rVB3	557774	907255	8.53%	0.693%
22	4.056	500	504	507	rBV	944293	671297	6.31%	0.513%
23	4.173	523	526	527	rBV	2687931	1558690	14.65%	1.191%
24	4.189	527	529	531	rVV	3364321	1690837	15.89%	1.292%
25	4.227	533	536	540	rVV3	445540	506314	4.76%	0.387%
26	4.275	542	545	547	rBV	649801	597374	5.61%	0.457%
27	4.296	547	549	552	rVV3	808925	772085	7.26%	0.590%
28	4.339	554	557	558	rBV	519321	331482	3.11%	0.253%
29	4.398	566	568	570	rBV	6458694	3177515	29.86%	2.428%
30	4.430	571	574	576	rVV	4768035	2979359	28.00%	2.277%
31	4.494	582	586	589	rBV2	1370951	1678011	15.77%	1.282%
32	4.542	593	595	597	rVV	2429359	1668676	15.68%	1.275%
33	4.595	603	605	606	rBV	905938	594792	5.59%	0.455%
34	4.622	606	610	613	rVV	10459217	8818752	82.87%	6.739%
35	4.665	616	618	625	rVB3	2024591	1696753	15.94%	1.297%
36	4.713	625	627	628	rBV	1990396	1270218	11.94%	0.971%
37	4.739	631	632	633	rVV	1686301	924146	8.68%	0.706%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	4.761	633	636	639	rVV3	5641503	4731481	44.46%	3.616%
39	4.814	642	646	647	rVV2	2864723	2874038	27.01%	2.196%
40	4.846	650	652	655	rVB	15462486	9459778	88.89%	7.229%
41	4.932	666	668	670	rBV2	1977048	1573615	14.79%	1.203%
42	4.980	674	677	679	rBV3	2554757	2985868	28.06%	2.282%
43	5.017	681	684	685	rVV2	4517343	3613281	33.95%	2.761%
44	5.065	689	693	695	rVV2	15322978	10641988	100.00%	8.133%
45	5.097	695	699	701	rVV4	1719011	2233906	20.99%	1.707%
46	5.204	717	719	721	rBV2	3045906	2483523	23.34%	1.898%
47	5.284	731	734	737	rBV	12962521	9118532	85.68%	6.968%
48	5.370	747	750	754	rBV3	7527059	6400000	60.14%	4.891%
49	5.423	758	760	763	rBV3	4990358	4143512	38.94%	3.166%
50	5.514	774	777	781	rBV2	6446059	5116707	48.08%	3.910%
51	5.573	785	788	791	rBV2	3766570	4125065	38.76%	3.152%
52	5.824	833	835	838	rBV	3631806	3809456	35.80%	2.911%
53	5.941	854	857	859	rBV2	4422052	5016142	47.14%	3.833%

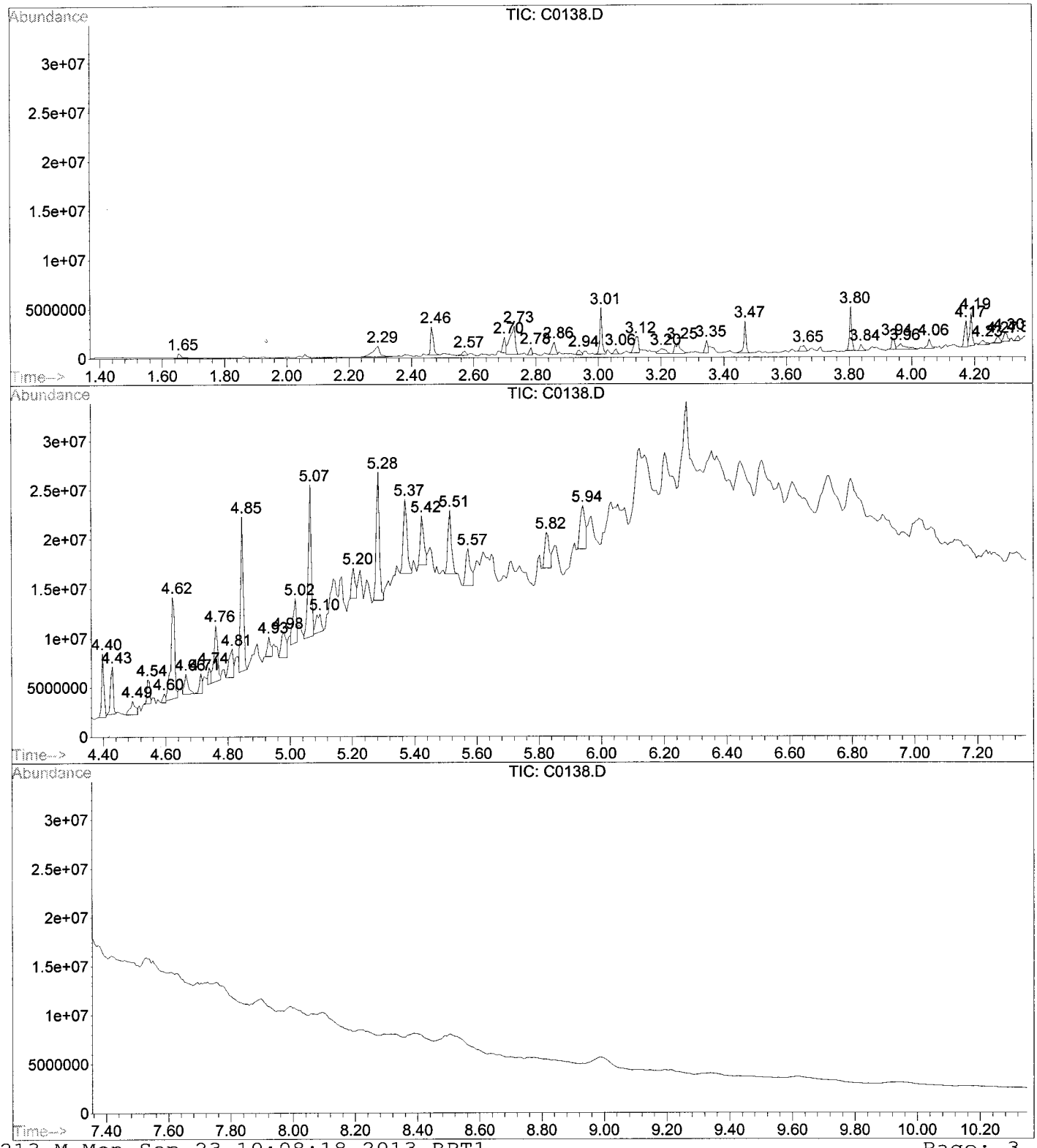
Sum of corrected areas: 130855155

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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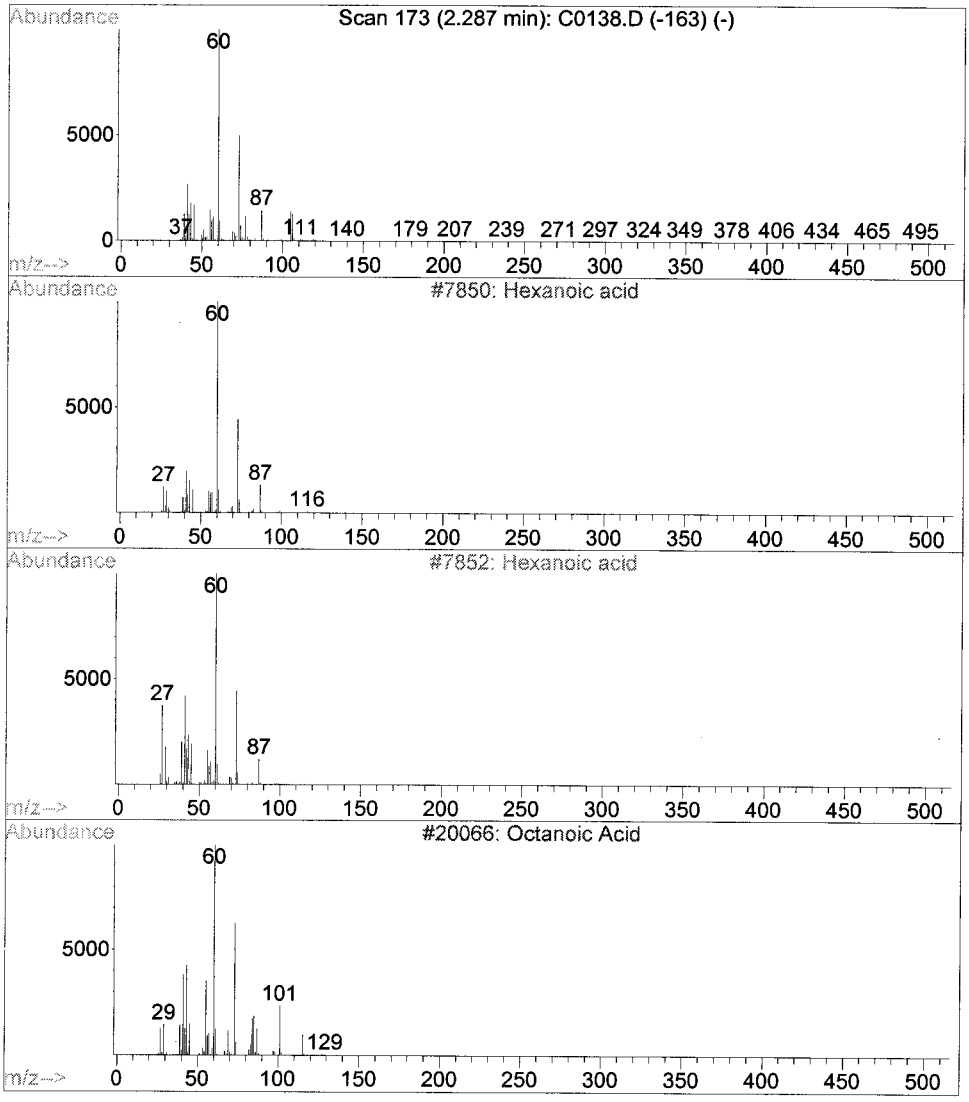
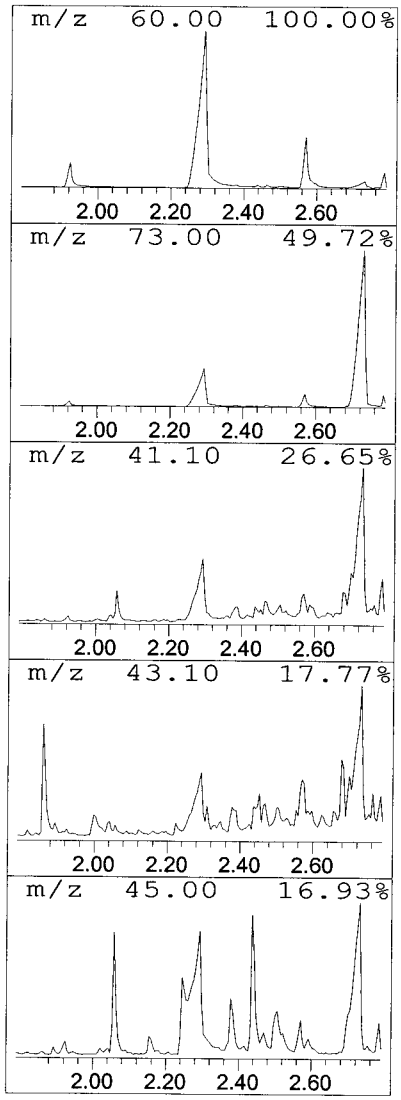
Peak Number 1 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.29	41.93 UG	1794830	1,4-Dichlorobenzene-d4	2.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanoic acid	116	C6H12O2	000142-62-1	83
2	Hexanoic acid	116	C6H12O2	000142-62-1	78
3	Octanoic Acid	144	C8H16O2	000124-07-2	78
4	Hexanoic acid	116	C6H12O2	000142-62-1	78
5	Octanoic Acid	144	C8H16O2	000124-07-2	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

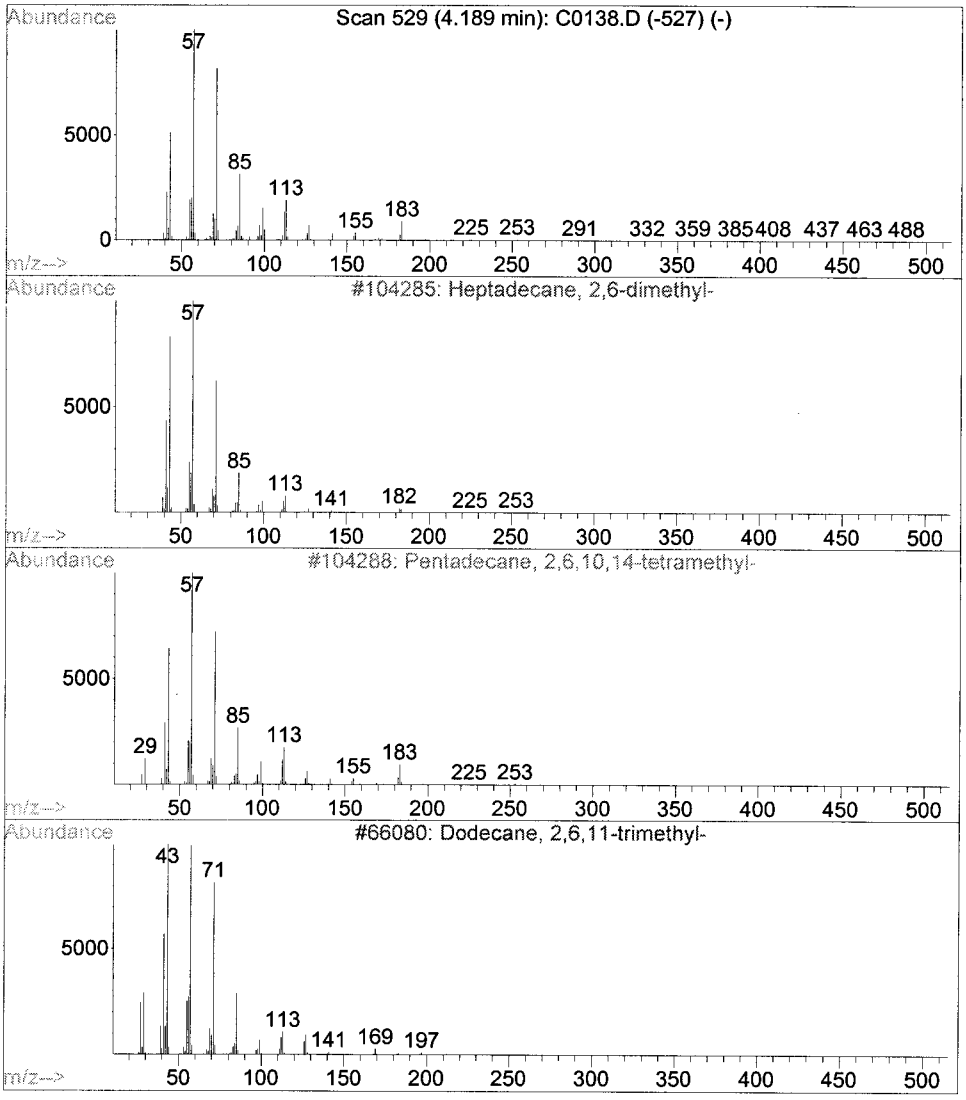
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

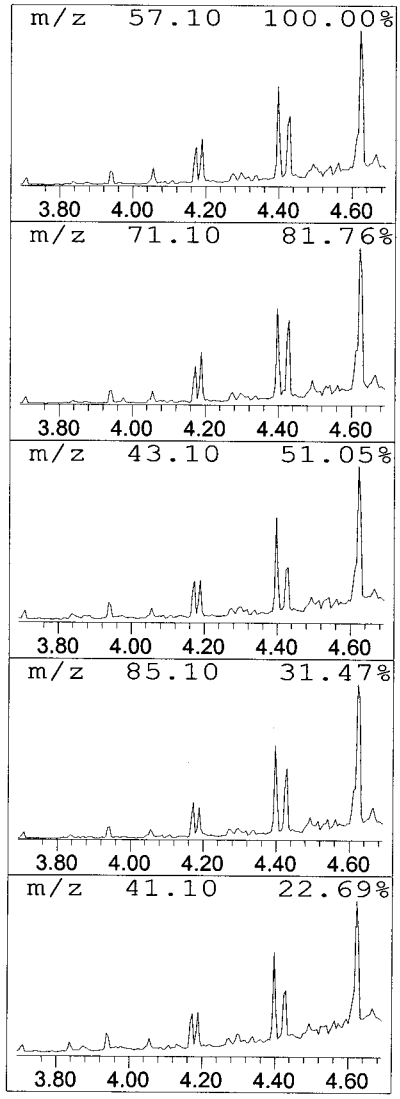
****

Peak Number 2 Unknown Hydrocarbon Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.19	40.53 UG	1690840	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane, 2,6-dimethyl-	268	C19H40	054105-67-8	94
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	93
3	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	91
4	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	89
5	Octadecane, 2,6-dimethyl-	282	C20H42	075163-97-2	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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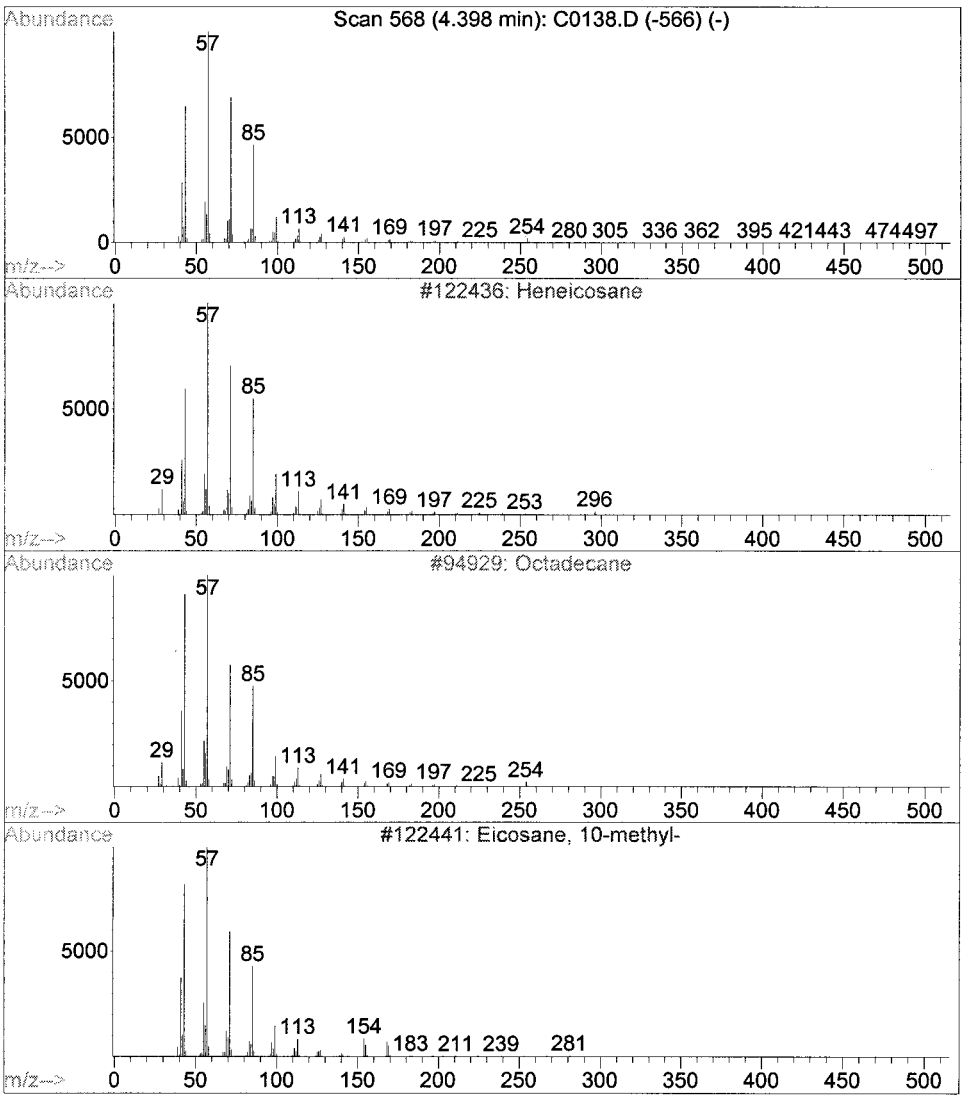
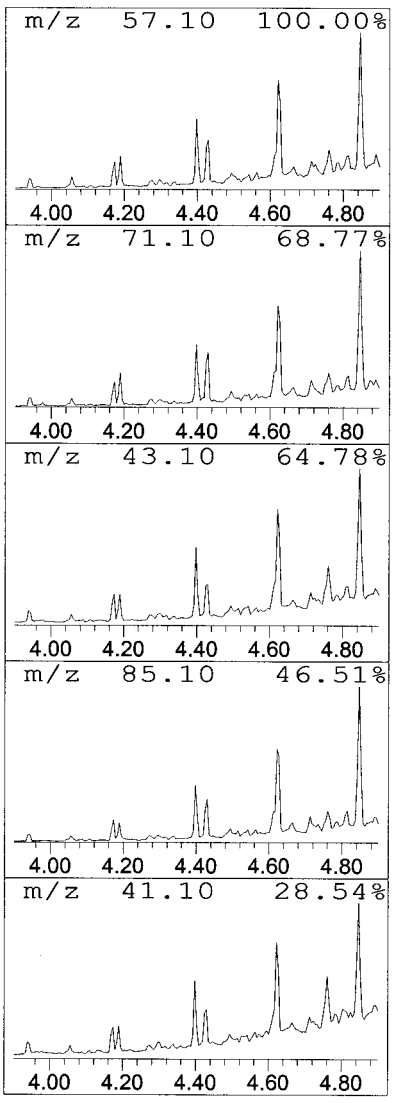
Peak Number 3 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.40	76.17 UG	3177520	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	97
2	Octadecane	254	C18H38	000593-45-3	94
3	Eicosane, 10-methyl-	296	C21H44	054833-23-7	94
4	Octadecane	254	C18H38	000593-45-3	93
5	Tetradecane	198	C14H30	000629-59-4	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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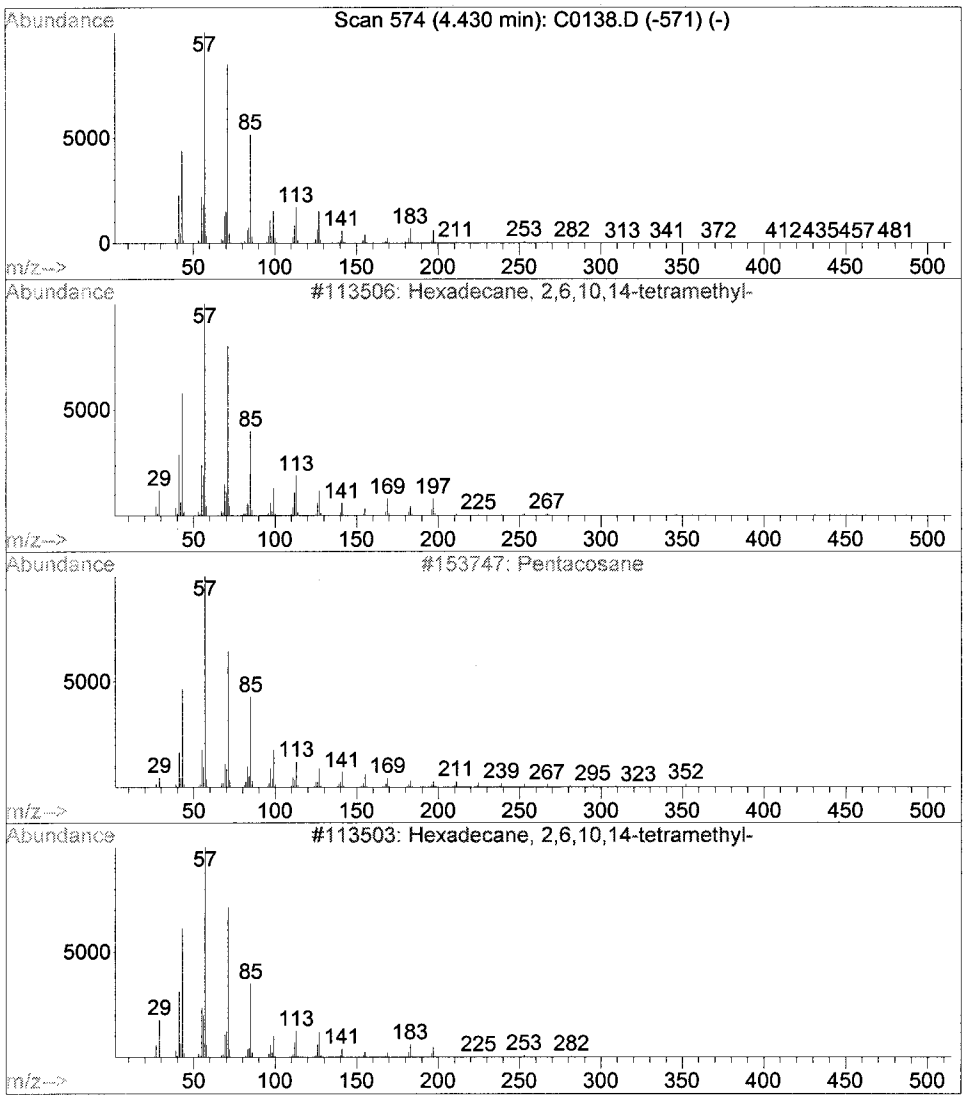
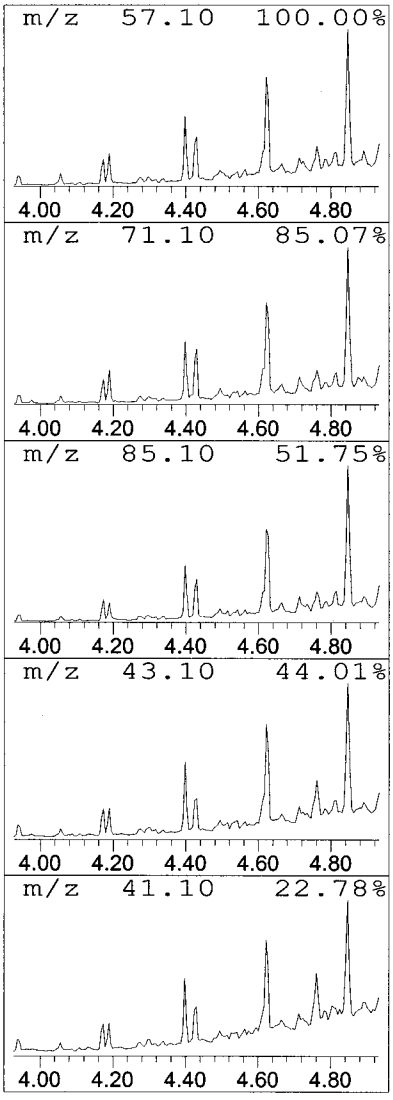
Peak Number 4 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.43	71.42 UG	2979360	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	91
2	Pentacosane	352	C25H52	000629-99-2	90
3	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	87
4	Triacontane	422	C30H62	000638-68-6	86
5	Hexadecane	226	C16H34	000544-76-3	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

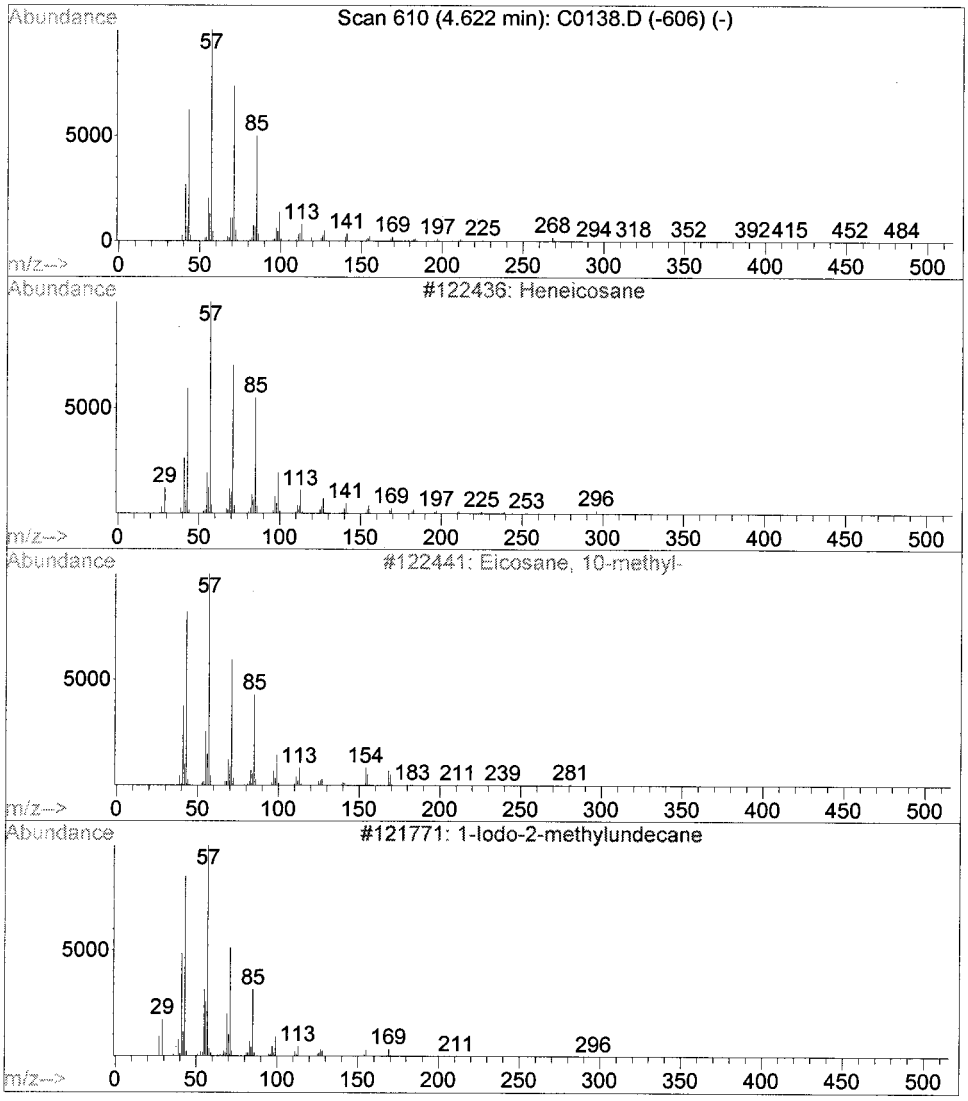
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

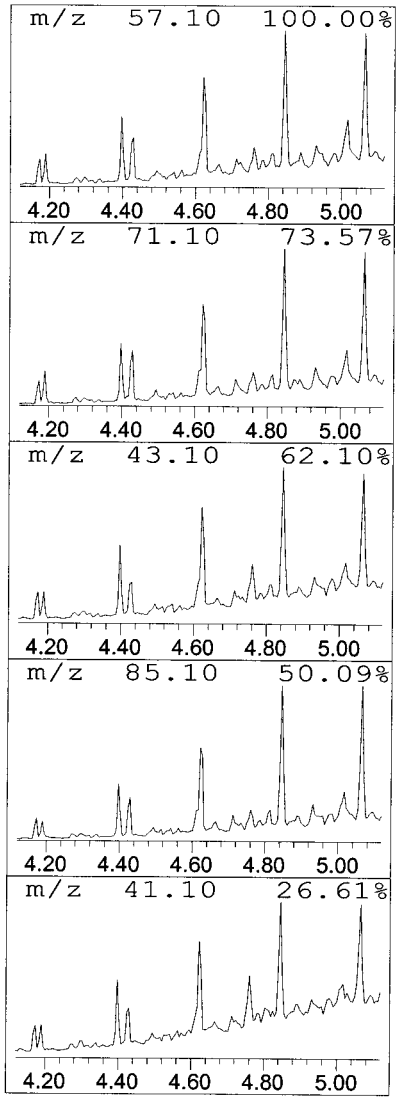
****

Peak Number 5 Unknown Hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.62	211.40 UG	8818750	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	97
2	Eicosane, 10-methyl-	296	C21H44	054833-23-7	95
3	1-Iodo-2-methylundecane	296	C12H25I	073105-67-6	94
4	Tetracosane	338	C24H50	000646-31-1	93
5	Pentacosane	352	C25H52	000629-99-2	92





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

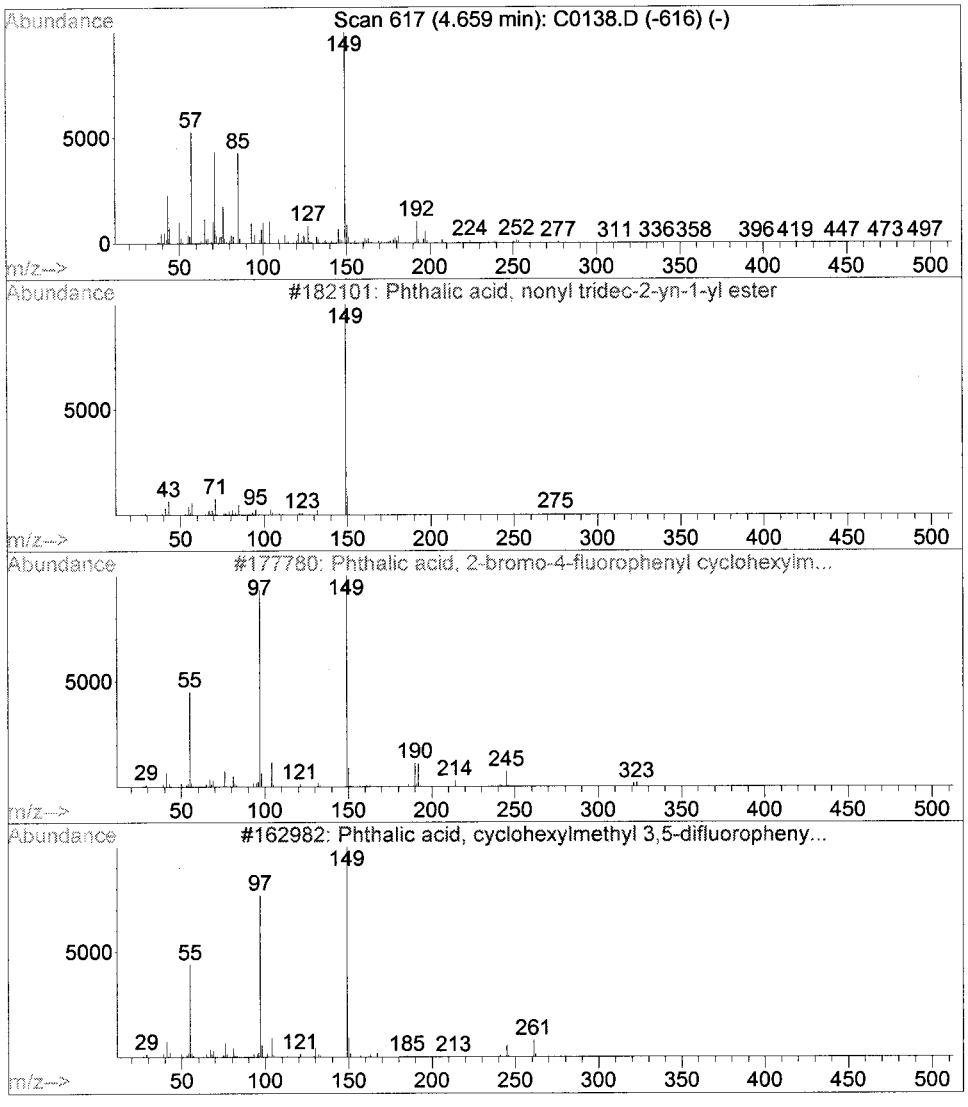
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

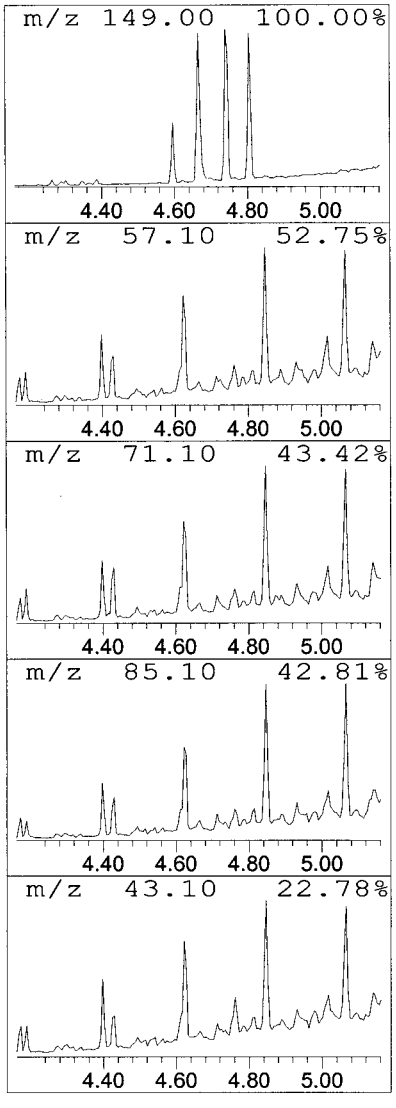
****

Peak Number 6 Unknown SV Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.66	40.67 UG	1696750	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phthalic acid, nonyl tridec-2-yn...	470	C30H46O4	1000315-44-2	53
2	Phthalic acid, 2-bromo-4-fluorop...	434	C21H20BrFO4	1000315-62-9	50
3	Phthalic acid, cyclohexylmethyl ...	374	C21H20F2O4	1000315-61-2	47
4	3-Oxo-18-nor-ent-ros-4-ene-15.be...	346	C22H34O3	1000146-56-5	47
5	1,2-Benzenedicarboxylic acid, mo...	222	C12H14O4	000131-70-4	47





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

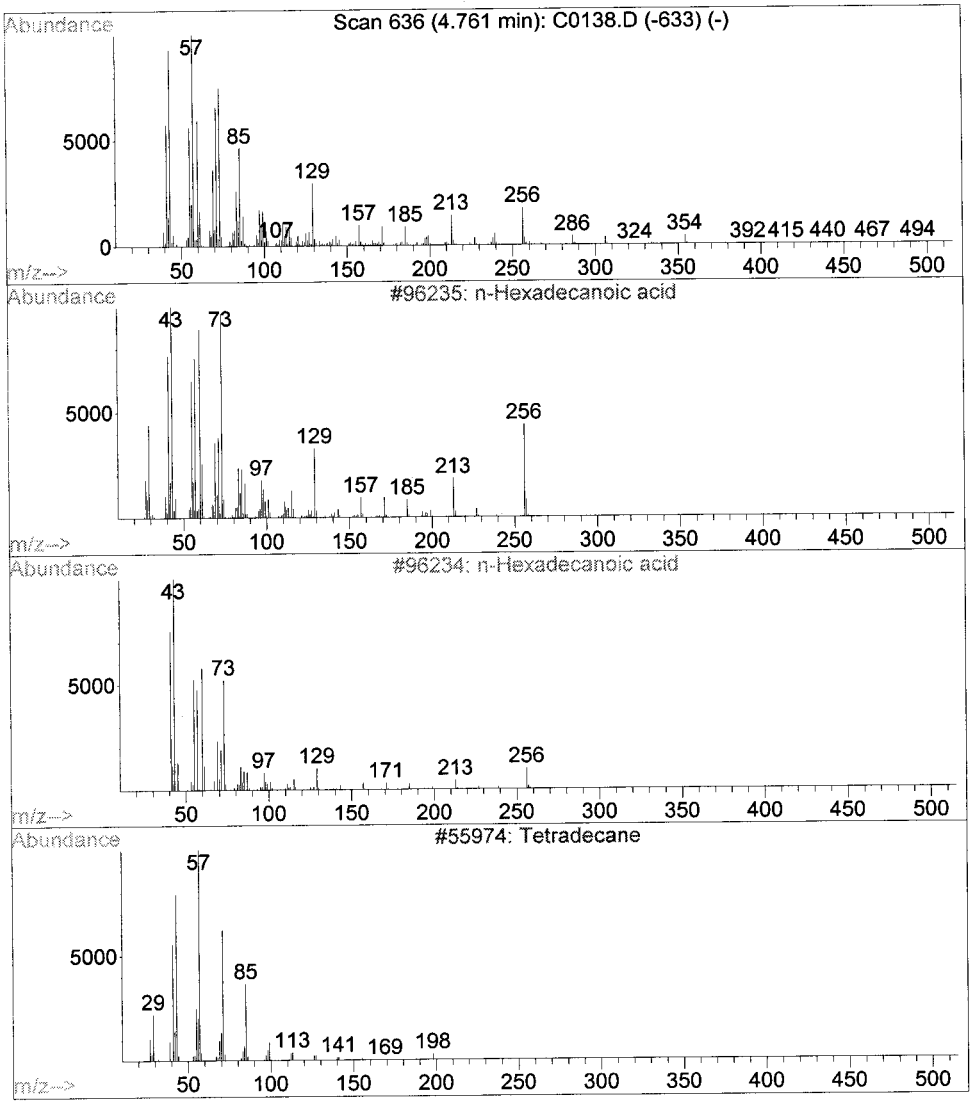
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

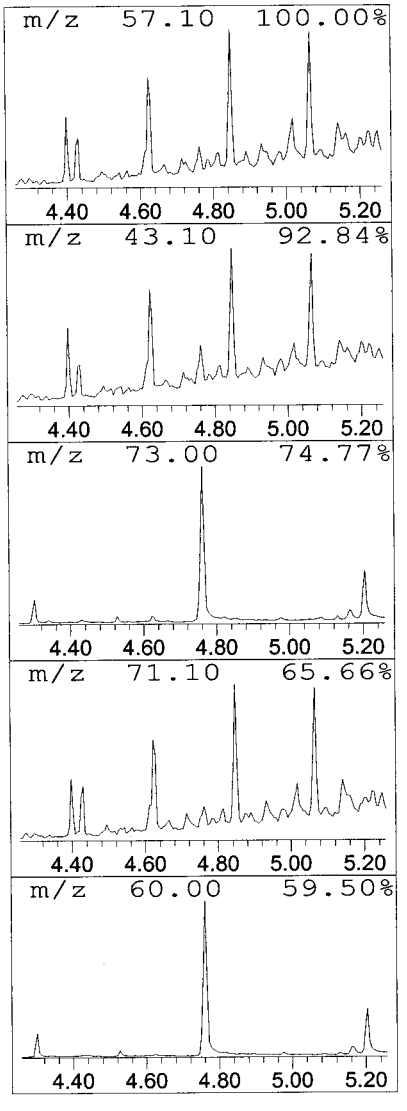
****

Peak Number 7 Unknown SV Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.76	113.42 UG	4731480	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	91
2	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	83
3	Tetradecane	198	C14H30	000629-59-4	59
4	Tetradecane	198	C14H30	000629-59-4	59
5	Heptacosane, 1-chloro-	414	C27H55Cl	062016-79-9	49





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

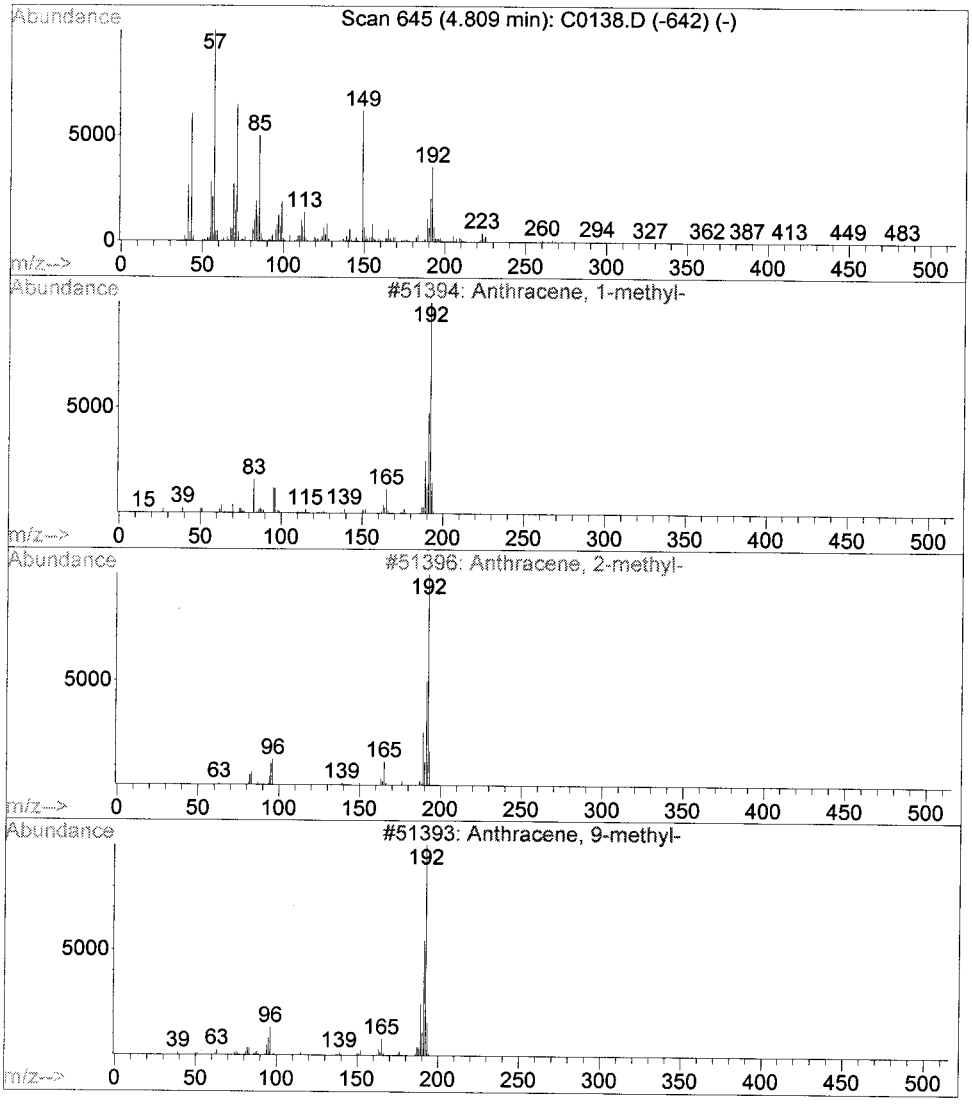
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

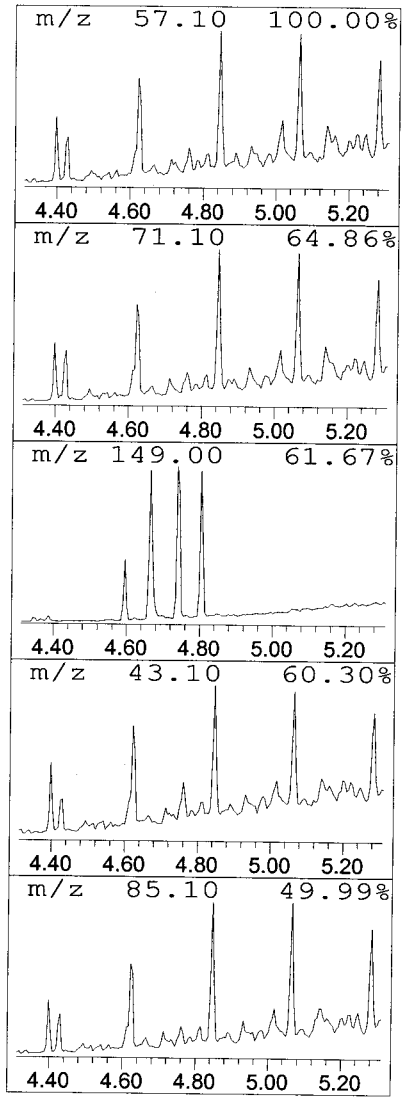
****

Peak Number 8 Unknown PAH Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.81	68.89 UG	2874040	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 1-methyl-	192	C15H12	000610-48-0	94
2	Anthracene, 2-methyl-	192	C15H12	000613-12-7	93
3	Anthracene, 9-methyl-	192	C15H12	000779-02-2	93
4	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	86
5	Anthracene, 9-methyl-	192	C15H12	000779-02-2	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

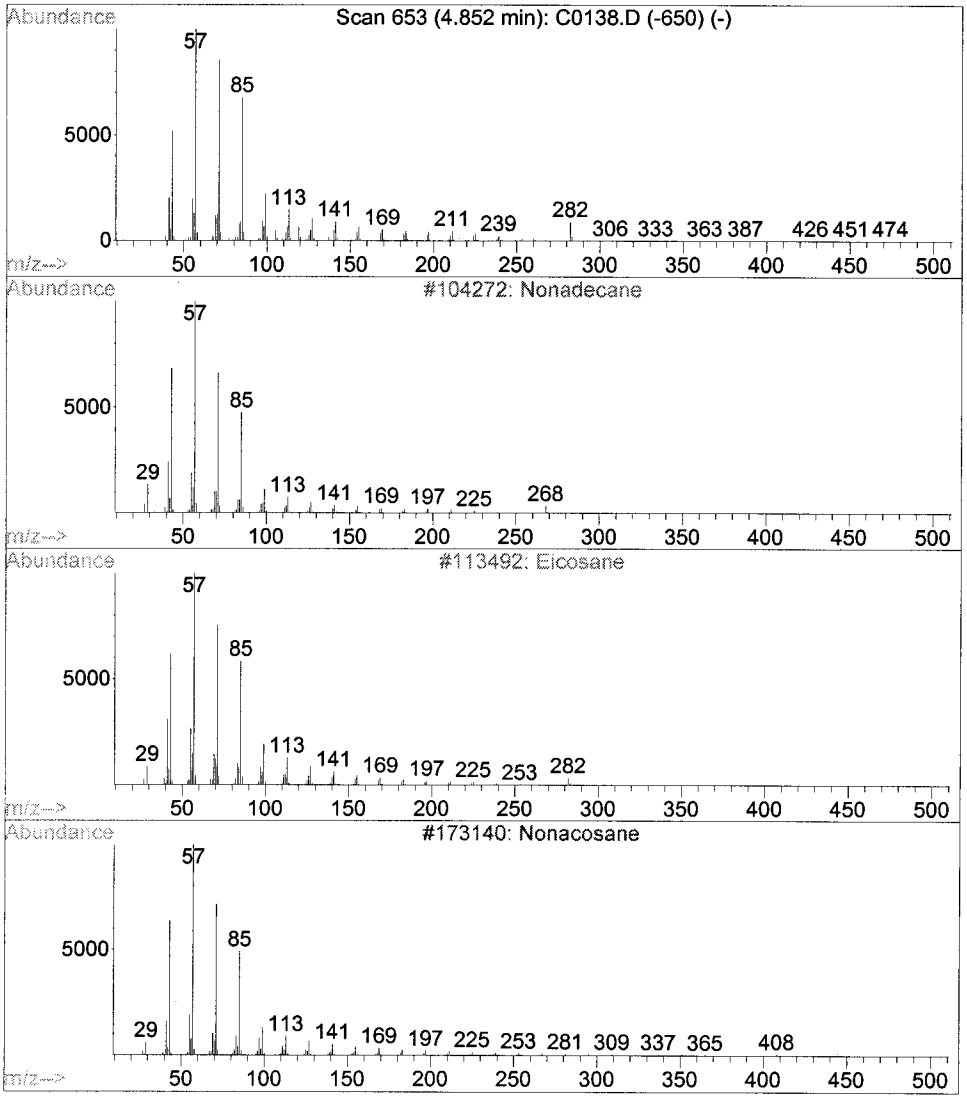
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

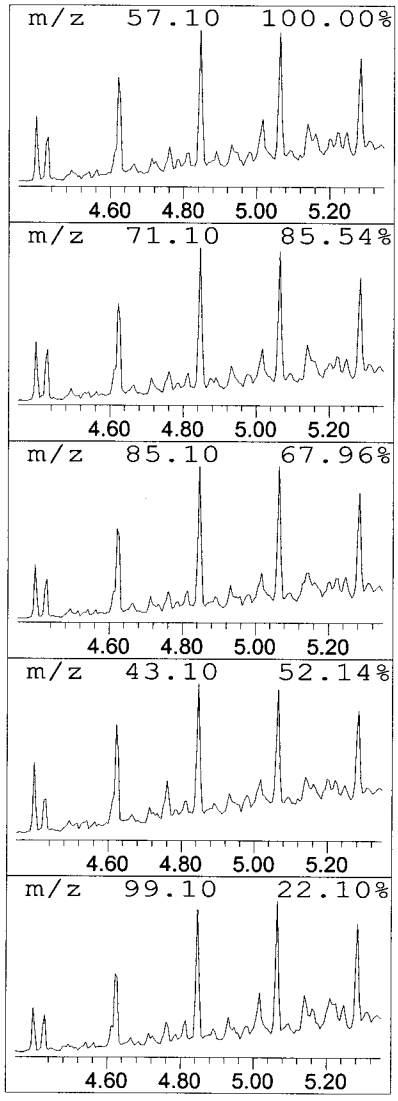
****

Peak Number 9 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	226.76 UG	9459780	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonadecane	268	C19H40	000629-92-5	97
2	Eicosane	282	C20H42	000112-95-8	96
3	Nonacosane	408	C29H60	000630-03-5	94
4	Tetracosane	338	C24H50	000646-31-1	93
5	Eicosane	282	C20H42	000112-95-8	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

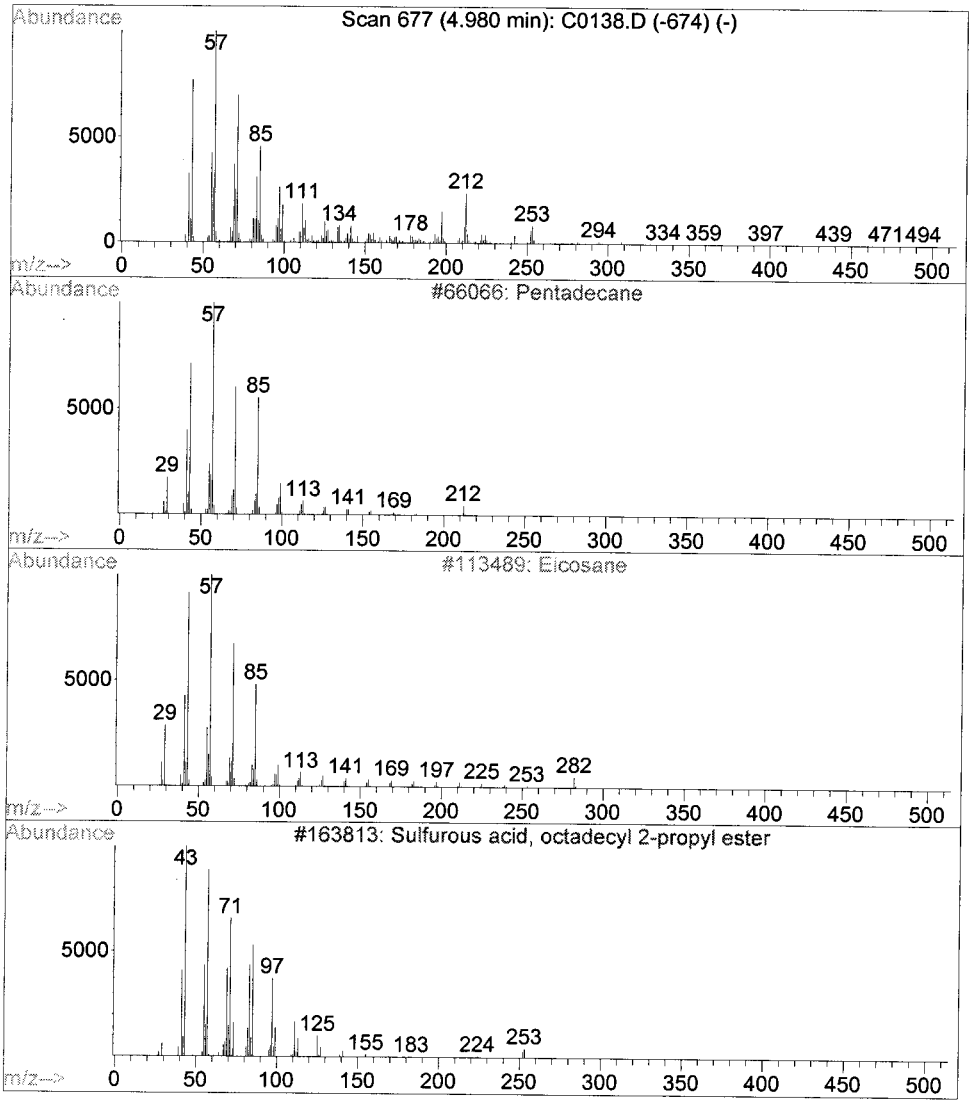
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

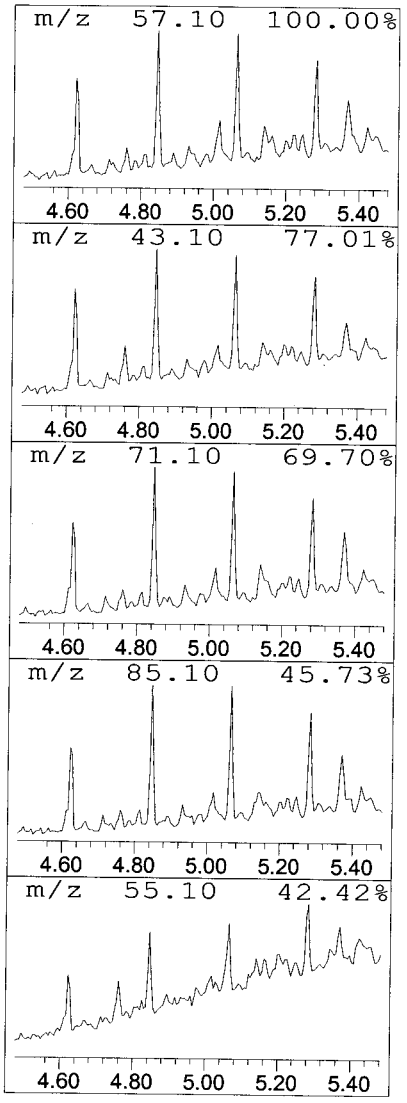
****

Peak Number 10 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.98	71.57 UG	2985870	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane	212	C15H32	000629-62-9	93
2	Eicosane	282	C20H42	000112-95-8	91
3	Sulfurous acid, octadecyl 2-prop...	376	C21H44O3S	1000309-12-7	68
4	Ethanol, 2-(octadecyloxy)-	314	C20H42O2	002136-72-3	68
5	Pentadecane	212	C15H32	000629-62-9	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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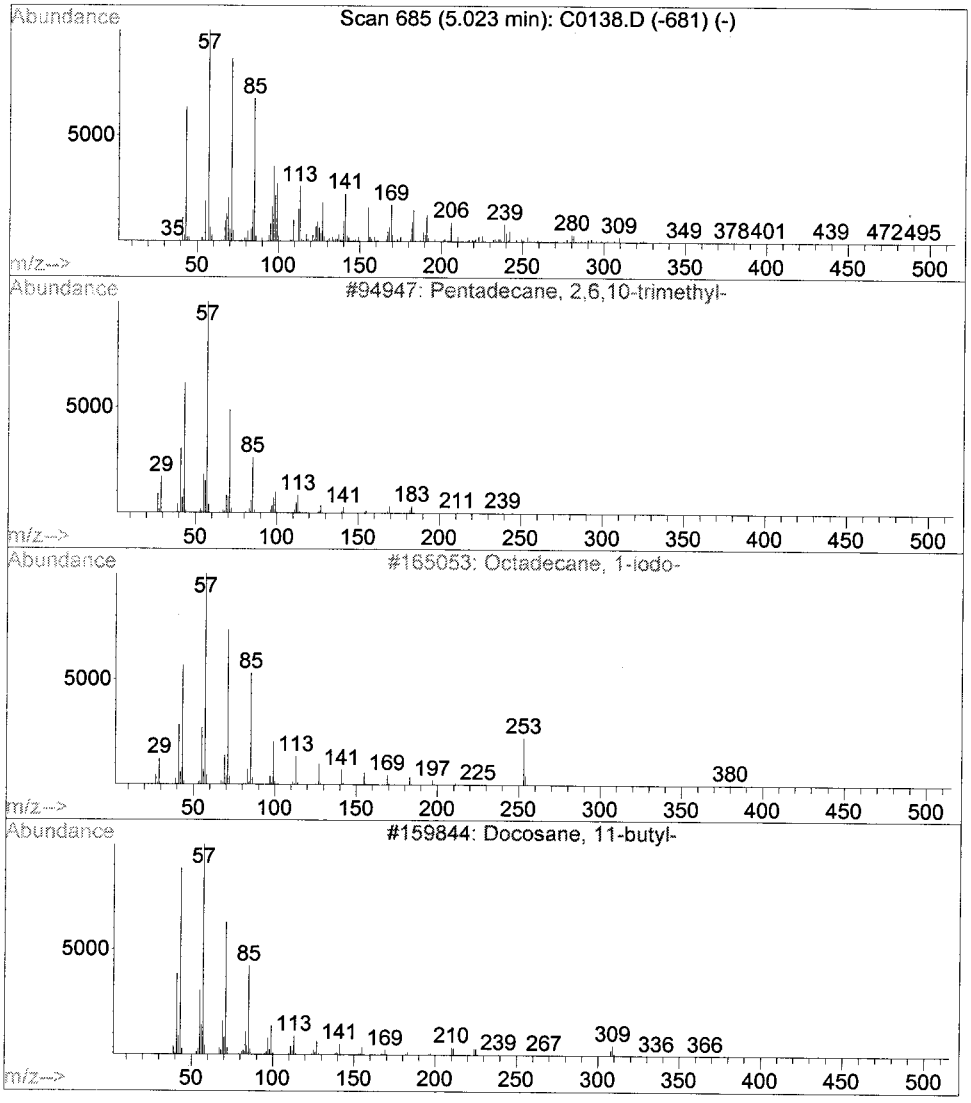
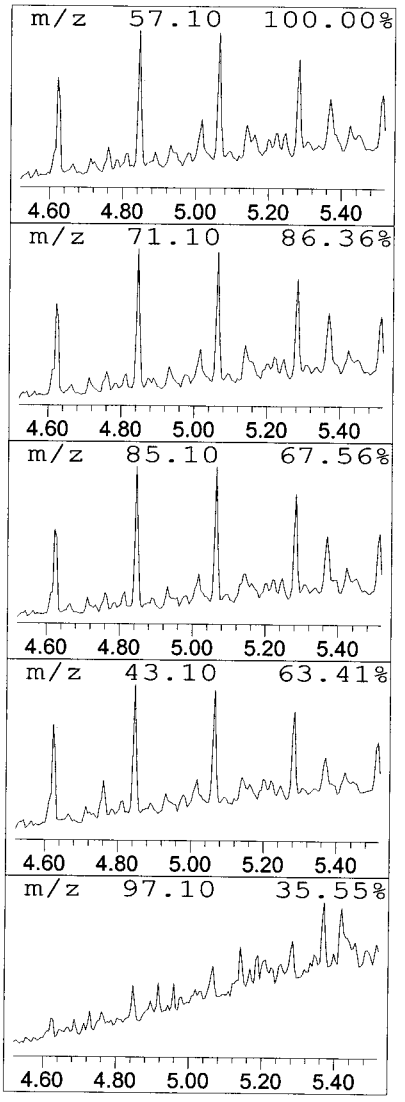
Peak Number 11 Unknown Hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.02	86.61 UG	3613280	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane, 2,6,10-trimethyl-	254	C18H38	003892-00-0	91
2	Octadecane, 1-iodo-	380	C18H37I	000629-93-6	89
3	Docosane, 11-butyl-	366	C26H54	013475-76-8	89
4	Octacosane	394	C28H58	000630-02-4	81
5	Heptacosane	380	C27H56	000593-49-7	81





E13-09196: 01152

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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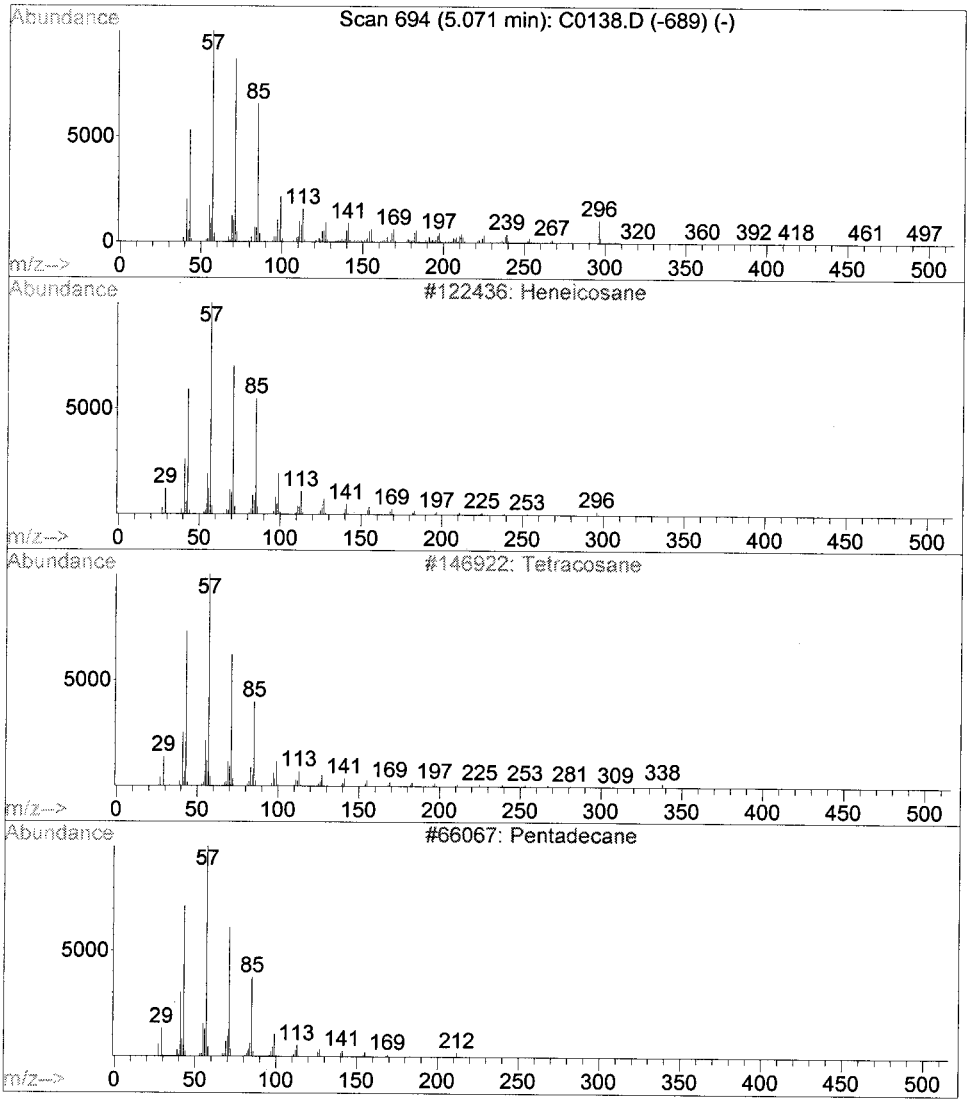
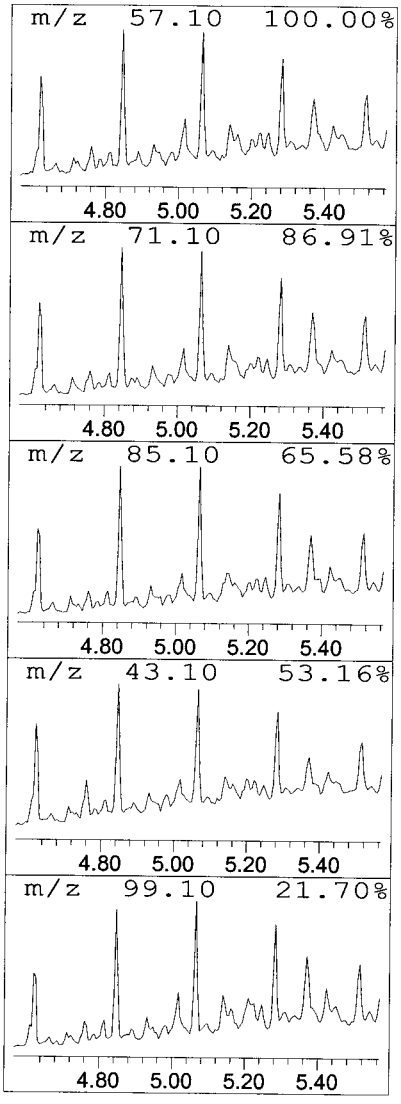
Peak Number 12 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.07	255.10 UG	10642000	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	99
2	Tetracosane	338	C24H50	000646-31-1	97
3	Pentadecane	212	C15H32	000629-62-9	97
4	Tetracosane	338	C24H50	000646-31-1	95
5	Hexadecane	226	C16H34	000544-76-3	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

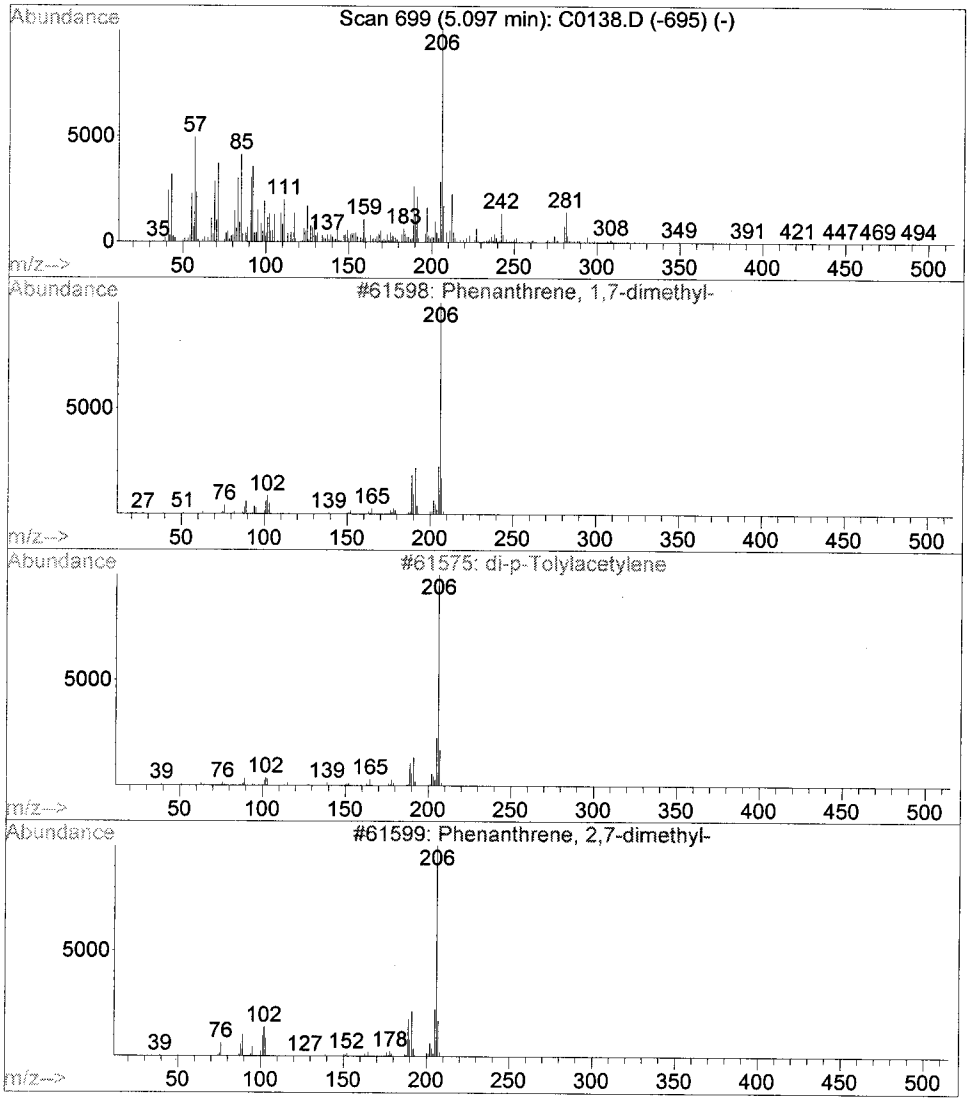
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

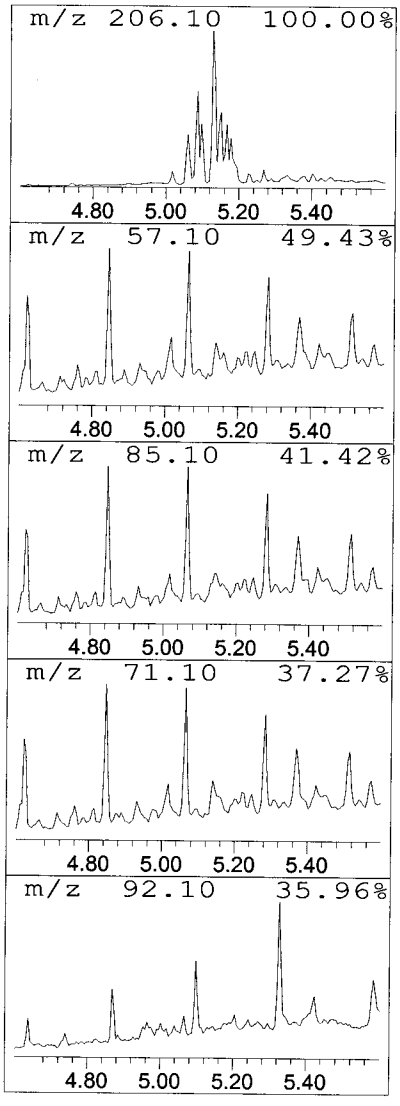
****

Peak Number 13 Unknown PAH Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.10	53.55 UG	2233910	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	84
2	di-p-Tolylacetylene	206	C16H14	002789-88-0	64
3	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	64
4	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	60
5	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	53





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

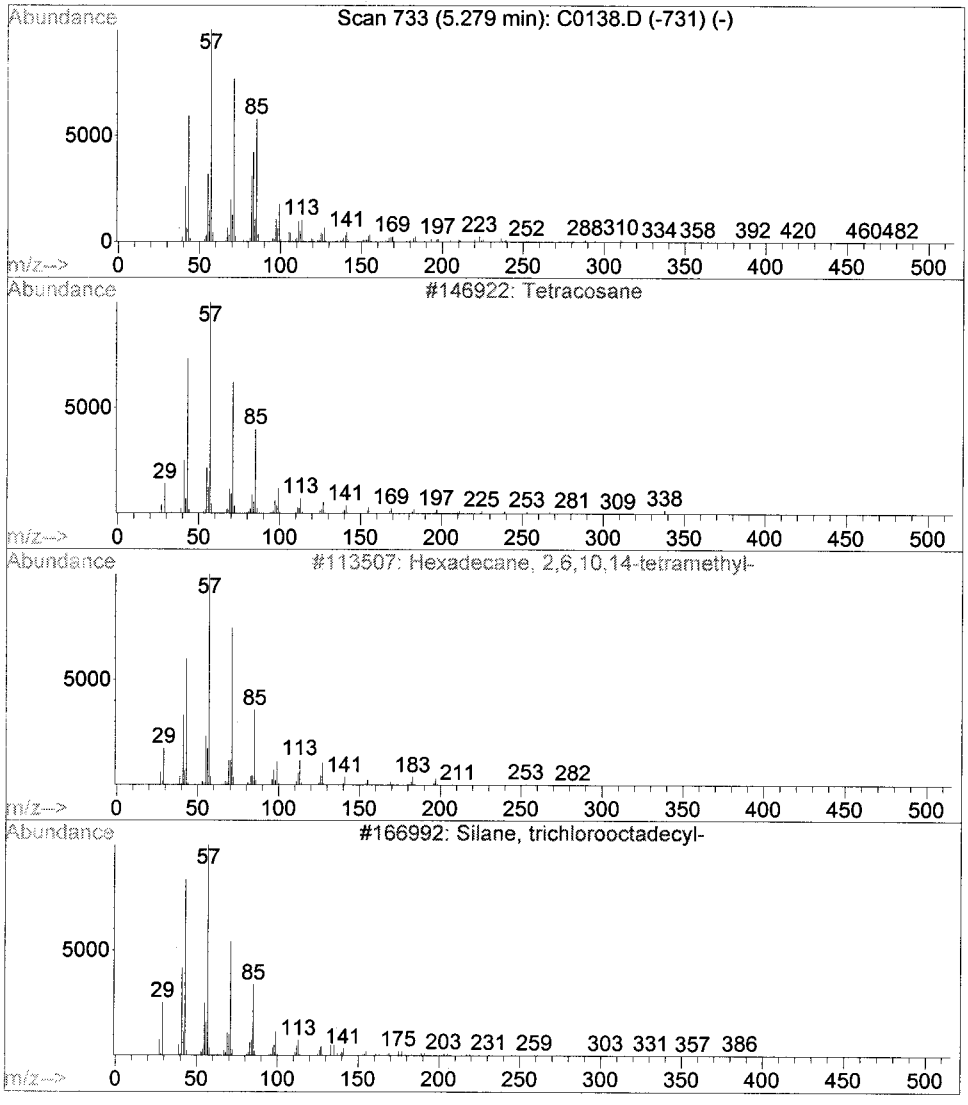
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

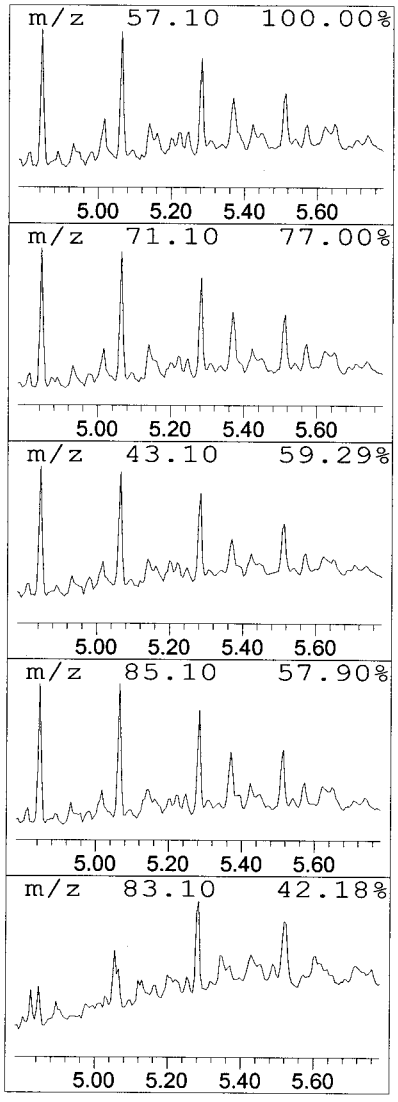
****

Peak Number 14 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.28	218.58 UG	9118530	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	95
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	95
3	Silane, trichlorooctadecyl-	386	C18H37Cl3Si	000112-04-9	93
4	Docosane	310	C22H46	000629-97-0	93
5	Octacosane	394	C28H58	000630-02-4	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0138.D
Acq On : 20 Sep 2013 19:16
Operator : EDM
Sample : C-3_BLD_,E13-09196-003,Xs,15.07g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

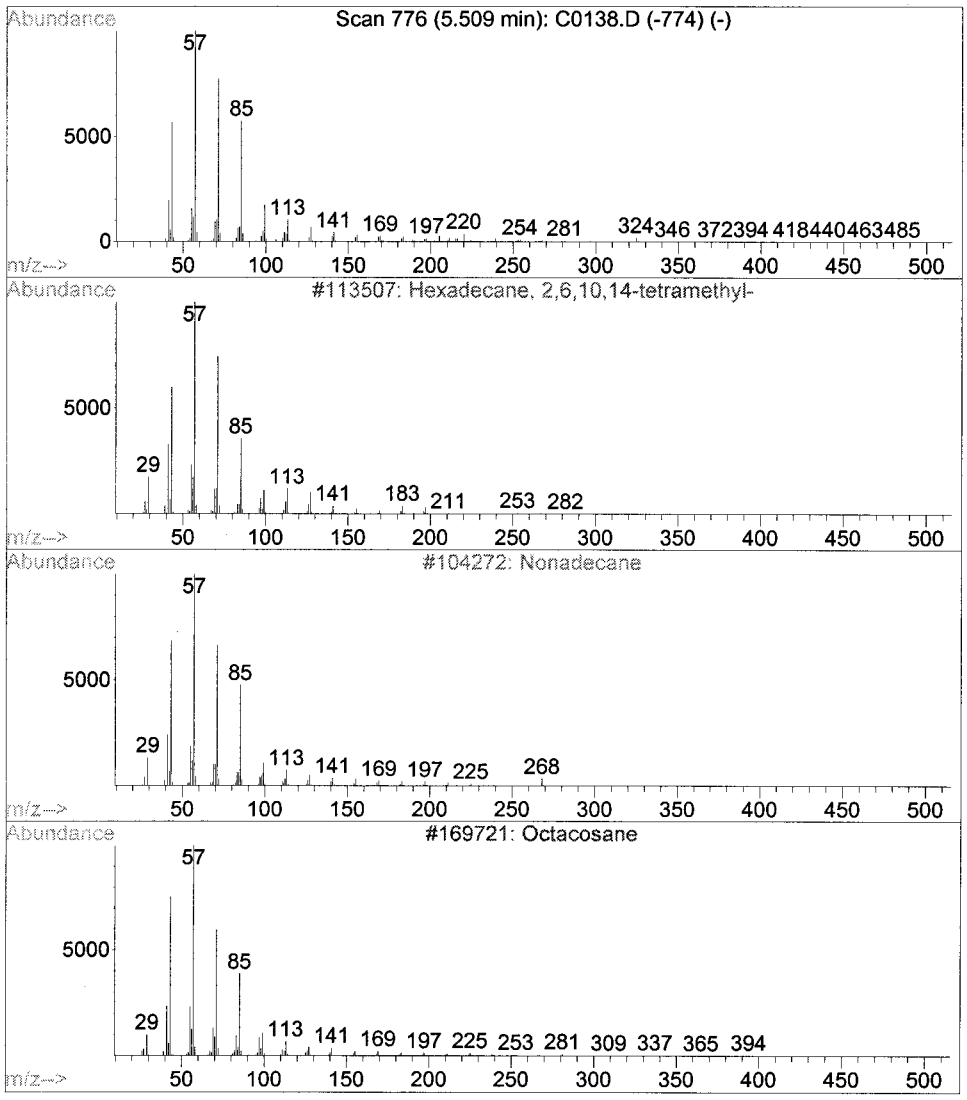
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

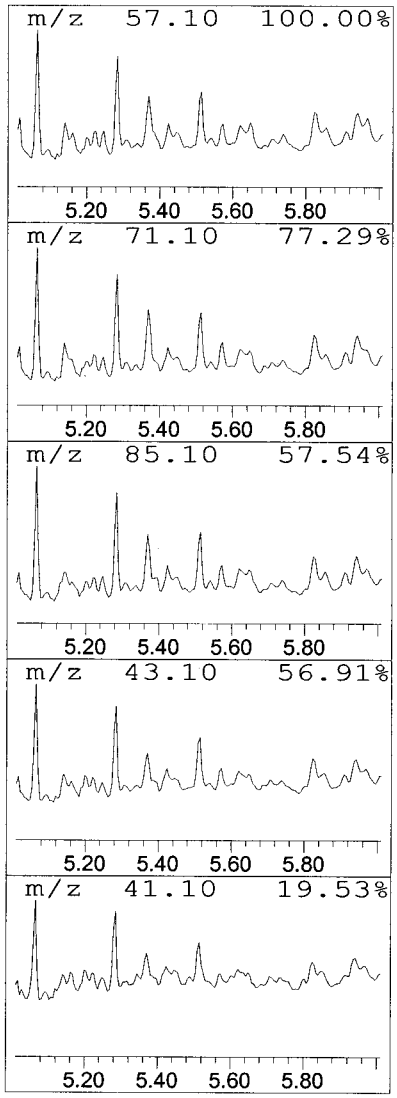
****

Peak Number 15 Unknown Hydrocarbon Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.51	40.80 UG	5116710	Chrysene-d12	6.34

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	97
2	Nonadecane	268	C19H40	000629-92-5	97
3	Octacosane	394	C28H58	000630-02-4	94
4	Tetratriacontane	479	C34H70	014167-59-0	91
5	Tetratetracontane	619	C44H90	007098-22-8	91





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 23 12:42:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

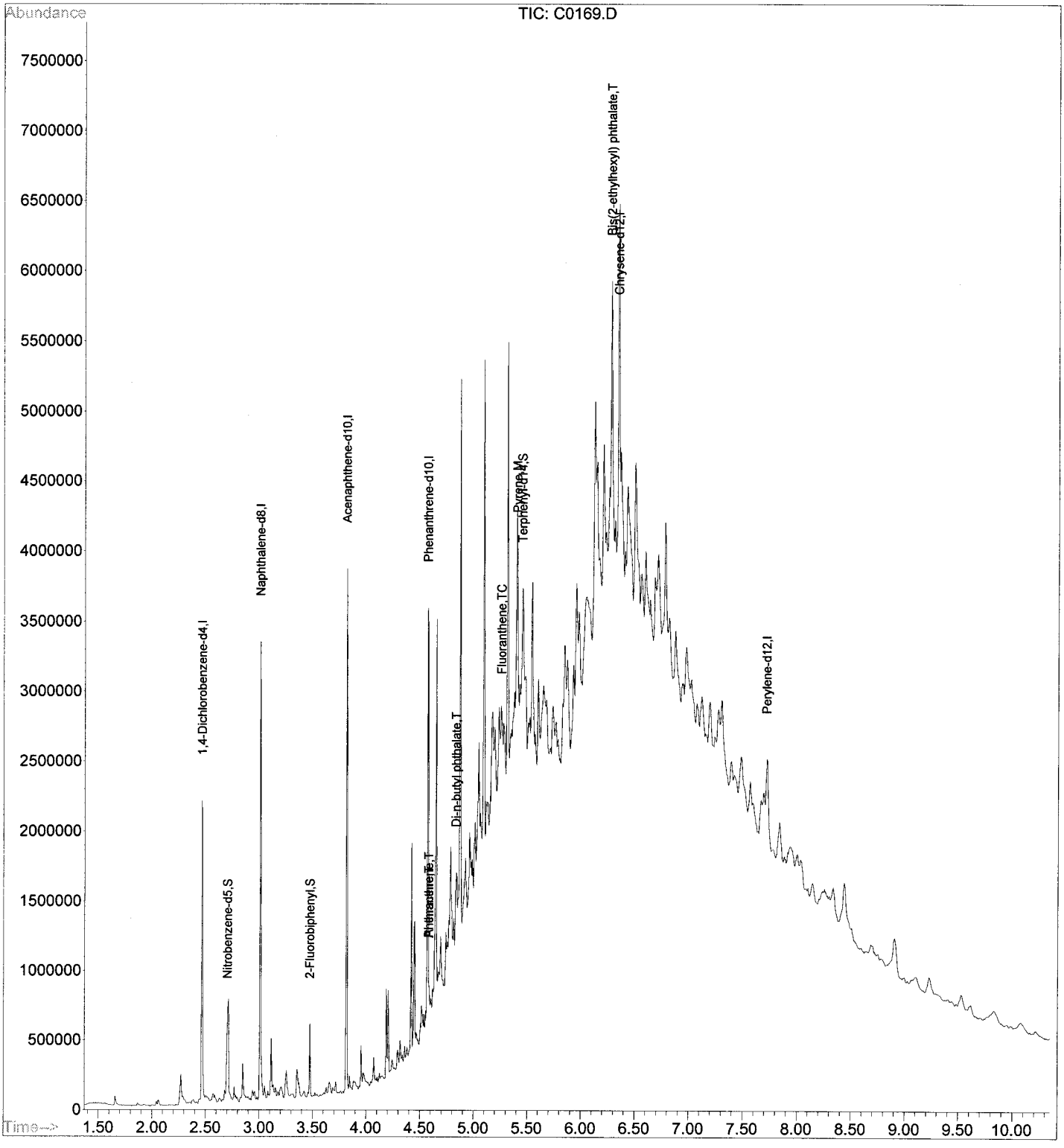
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.46	152	201545m	40.00	UG		-0.01
23) Naphthalene-d8	3.01	136	820422m	40.00	UG		-0.02
43) Acenaphthene-d10	3.82	164	549425m	40.00	UG		-0.04
66) Phenanthrene-d10	4.57	188	801154m	40.00	UG		-0.07
82) Chrysene-d12	6.35	240	517816	40.00	UG		-0.09
92) Perylene-d12	7.73	264	266789	40.00	UG		-0.05
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#				
6) Phenol-d5	0.00	99	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#				
24) Nitrobenzene-d5	2.70	82	41895	6.31	UG		-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 12.62%#				
47) 2-Fluorobiphenyl	3.47	172	89916	4.84	UG		-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 9.68%#				
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG		
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#				
84) Terphenyl-d14	5.46	244	69666m	5.08	UG		-0.14
Spiked Amount 50.000	Range 15 - 122		Recovery = 10.16%#				
Target Compounds							Qvalue
75) Phenanthrene	4.58	178	27365	1.26	UG		97
76) Anthracene	4.58	178	27365	1.25	UG		96
78) Di-n-butyl phthalate	4.84	149	41913	1.74	UG	#	93
79) Fluoranthene	5.26	202	39943m	1.74	UG		
83) Pyrene	5.41	202	44866m	2.57	UG		
90) Bis(2-ethylhexyl) phthalat	6.28	149	347669	36.94	UG	#	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 23 12:42:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.271	165	170	172	rBV	222526	224063	9.50%	0.607%
2	2.463	204	206	212	rBV	2138470	1363329	57.82%	3.693%
3	2.715	248	253	255	rBV2	683192	767198	32.54%	2.078%
4	2.848	276	278	281	rBV	243339	150621	6.39%	0.408%
5	2.939	293	295	297	rBV2	74507	62910	2.67%	0.170%
6	3.008	306	308	311	rBV	3256068	1976301	83.82%	5.353%
7	3.115	325	328	329	rBV	409002	246837	10.47%	0.669%
8	3.206	342	345	351	rVB3	76506	111198	4.72%	0.301%
9	3.254	351	354	359	rBV	194803	226689	9.61%	0.614%
10	3.356	370	373	375	rBV2	202200	204412	8.67%	0.554%
11	3.473	393	395	398	rVB	517598	262454	11.13%	0.711%
12	3.655	426	429	434	rVB3	81435	96319	4.09%	0.261%
13	3.815	457	459	462	rBV	3721220	2357789	100.00%	6.387%
14	3.885	470	472	474	rBV2	64129	65522	2.78%	0.177%
15	3.954	483	485	487	rBV	295614	164822	6.99%	0.446%
16	4.071	503	507	509	rBV	183068	130452	5.53%	0.353%
17	4.189	526	529	531	rBV	646697	365813	15.52%	0.991%
18	4.205	531	532	534	rVV	610394	305012	12.94%	0.826%
19	4.242	534	539	542	rVV4	98731	112973	4.79%	0.306%
20	4.296	546	549	551	rBV2	139222	138364	5.87%	0.375%
21	4.317	551	553	555	rVV3	162908	114940	4.87%	0.311%
22	4.360	558	561	562	rBV	110721	67372	2.86%	0.182%
23	4.419	570	572	574	rBV	1476814	677983	28.76%	1.837%
24	4.451	575	578	580	rVV	871526	609521	25.85%	1.651%
25	4.467	580	581	586	rVB4	84404	68041	2.89%	0.184%
26	4.515	586	590	593	rBV3	278328	360966	15.31%	0.978%
27	4.568	598	600	603	rBV	2938052	2163383	91.75%	5.860%
28	4.616	608	609	611	rBV	140146	120592	5.11%	0.327%
29	4.648	611	615	617	rBV	2671731	1670128	70.83%	4.524%
30	4.691	621	623	630	rVB3	356961	296766	12.59%	0.804%
31	4.739	630	632	633	rBV	388452	252536	10.71%	0.684%
32	4.782	638	640	644	rVV2	726076	653272	27.71%	1.770%
33	4.835	647	650	652	rBV3	521486	589401	25.00%	1.597%
34	4.873	654	657	660	rVB	3891442	2162652	91.72%	5.858%
35	4.958	671	673	677	rBV	426037	433205	18.37%	1.173%
36	5.012	680	683	684	rBV2	471789	426950	18.11%	1.157%
37	5.044	687	689	691	rVV	663194	402046	17.05%	1.089%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	5.092	695	698	701	rBV	3421257	2054066	87.12%	5.564%
39	5.119	701	703	707	rBV4	243850	356192	15.11%	0.965%
40	5.172	710	713	715	rBV2	641034	806693	34.21%	2.185%
41	5.311	736	739	742	rBV	3085226	1855231	78.69%	5.025%
42	5.396	752	755	759	rBV2	1403283	1198437	50.83%	3.246%
43	5.450	763	765	768	rVV3	679363	633463	26.87%	1.716%
44	5.541	779	782	786	rVB2	1158521	1051983	44.62%	2.850%
45	5.599	790	793	796	rBV	617247	648171	27.49%	1.756%
46	5.952	856	859	862	rBV	808108	1018191	43.18%	2.758%
47	6.123	888	891	893	rBV2	1361224	1480158	62.78%	4.009%
48	6.203	903	906	909	rBV	988032	1101327	46.71%	2.983%
49	6.278	917	920	925	rVB	1853482	1685993	71.51%	4.567%
50	6.347	930	933	935	rBV	2319338	1911606	81.08%	5.178%
51	6.775	1011	1013	1018	rVB	781859	712579	30.22%	1.930%

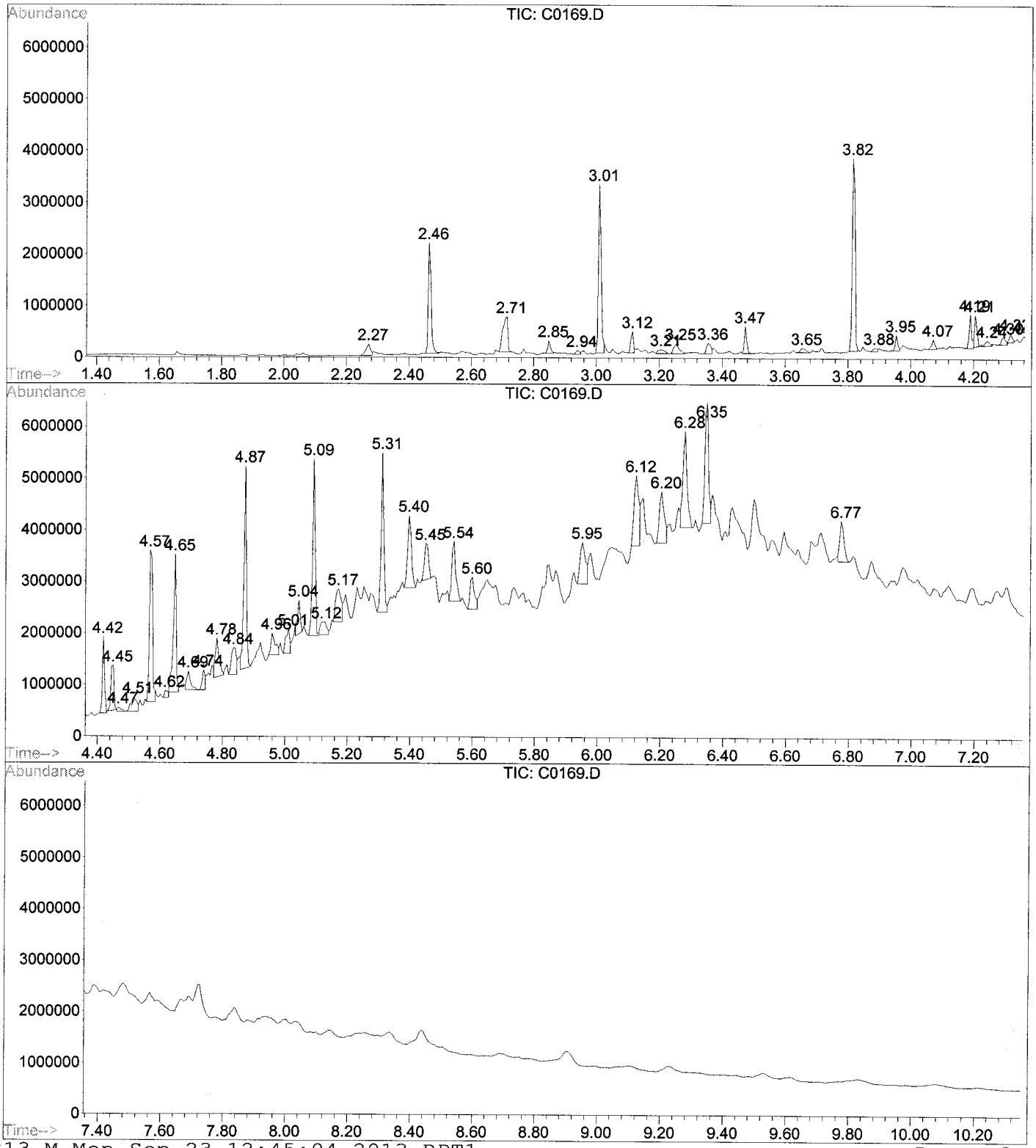
Sum of corrected areas: 36916922

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



E13-09196 0161

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

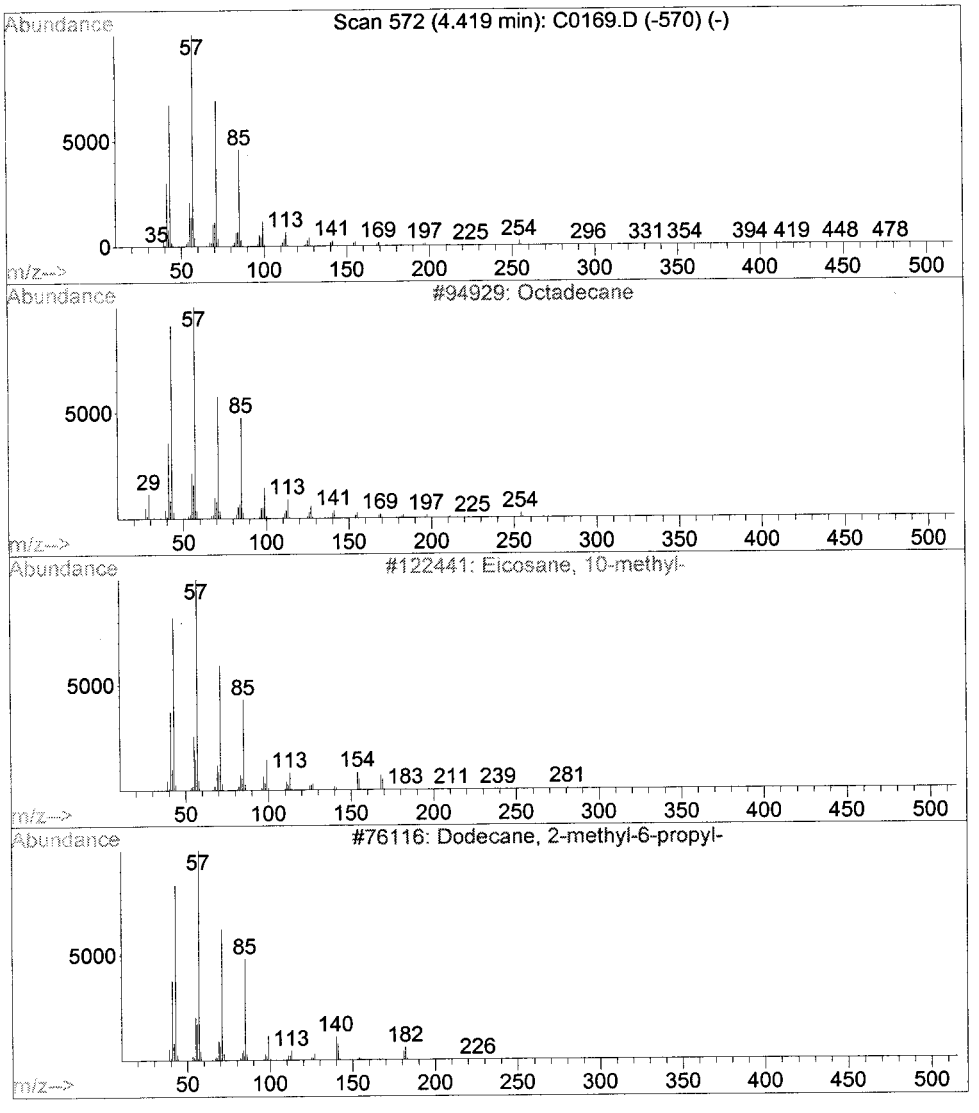
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

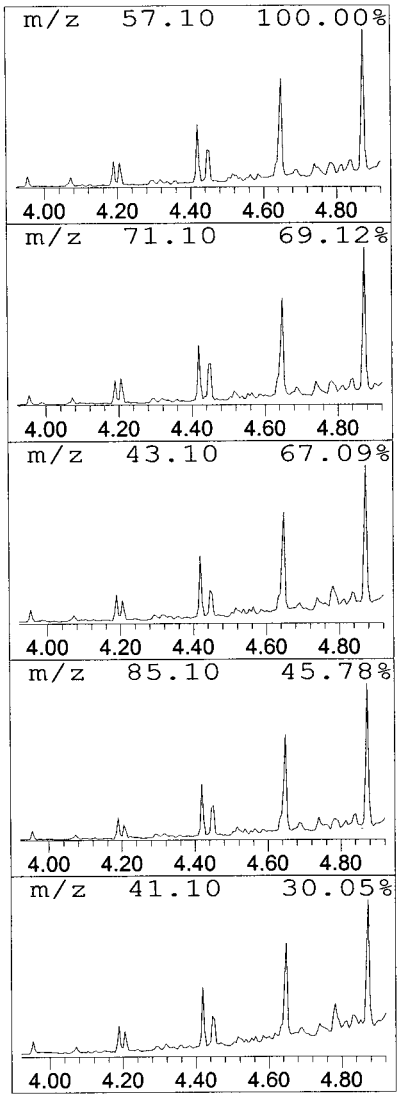
****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.42	12.54 UG	677983	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane	254	C18H38	000593-45-3	97
2	Eicosane, 10-methyl-	296	C21H44	054833-23-7	93
3	Dodecane, 2-methyl-6-propyl-	226	C16H34	055045-08-4	93
4	Octadecane	254	C18H38	000593-45-3	92
5	Nonacosane	408	C29H60	000630-03-5	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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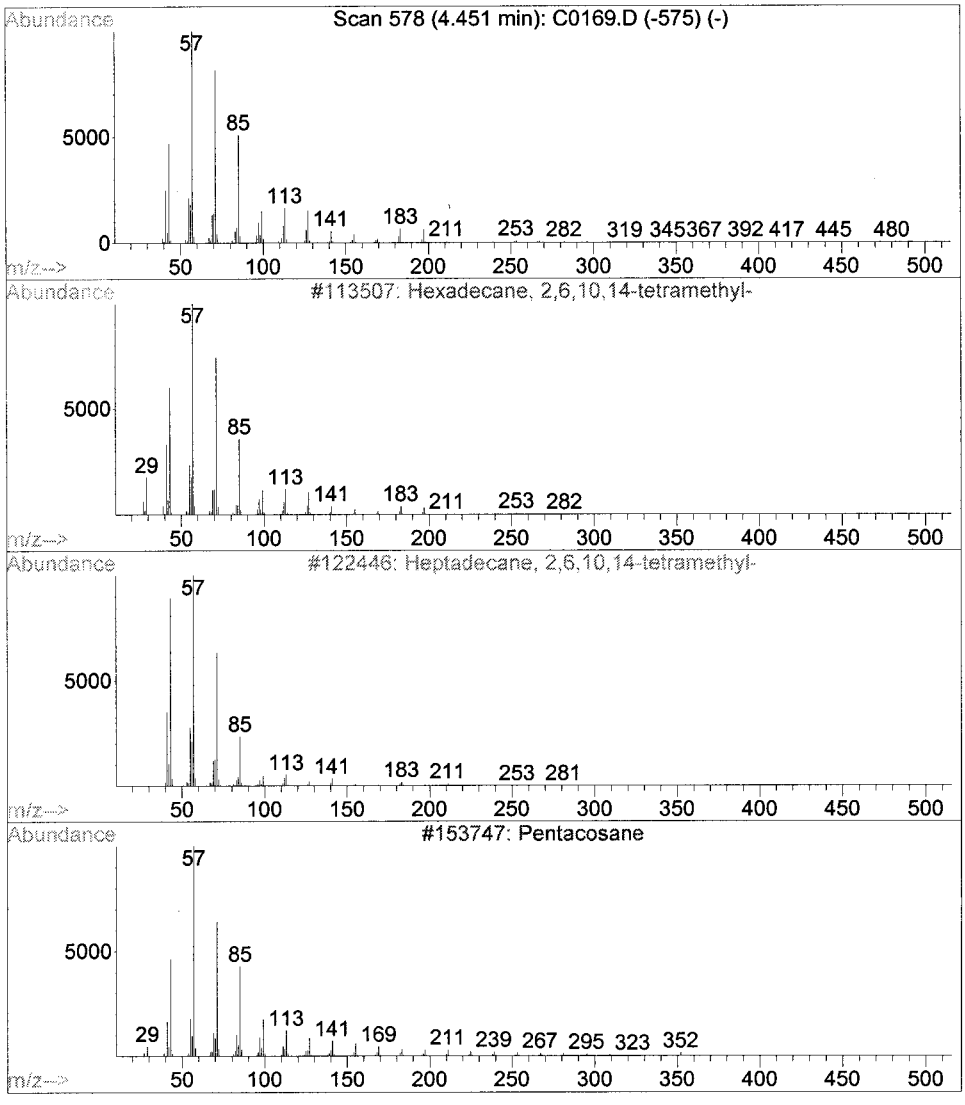
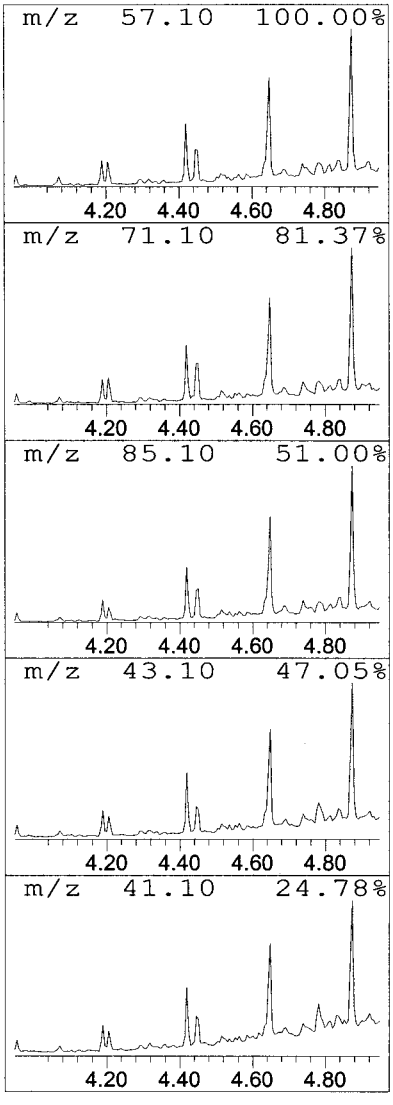
Peak Number 2 Unknown Hydrocarbon Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.45	11.27 UG	609521	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	99
2	Heptadecane, 2,6,10,14-tetramethyl-	296	C21H44	018344-37-1	90
3	Pentacosane	352	C25H52	000629-99-2	90
4	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	87
5	Hexadecane	226	C16H34	000544-76-3	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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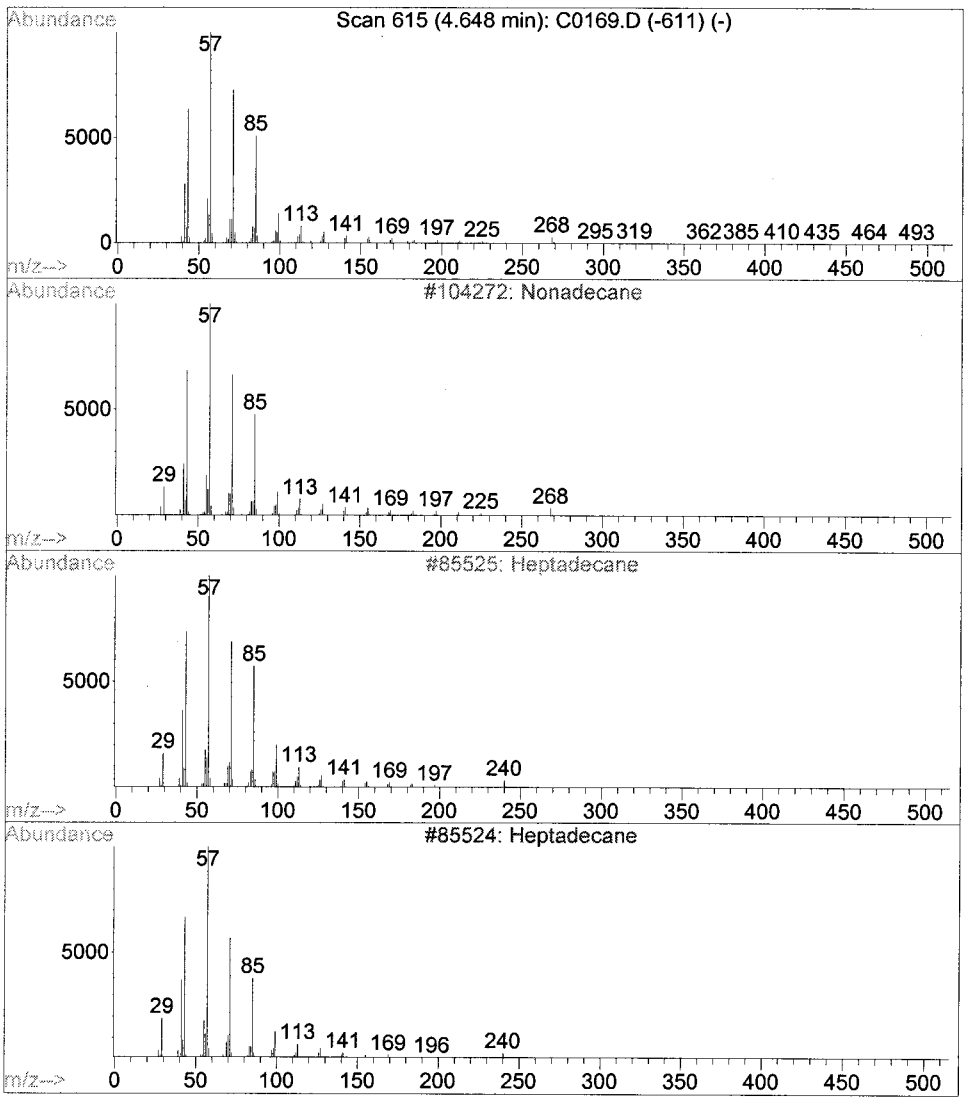
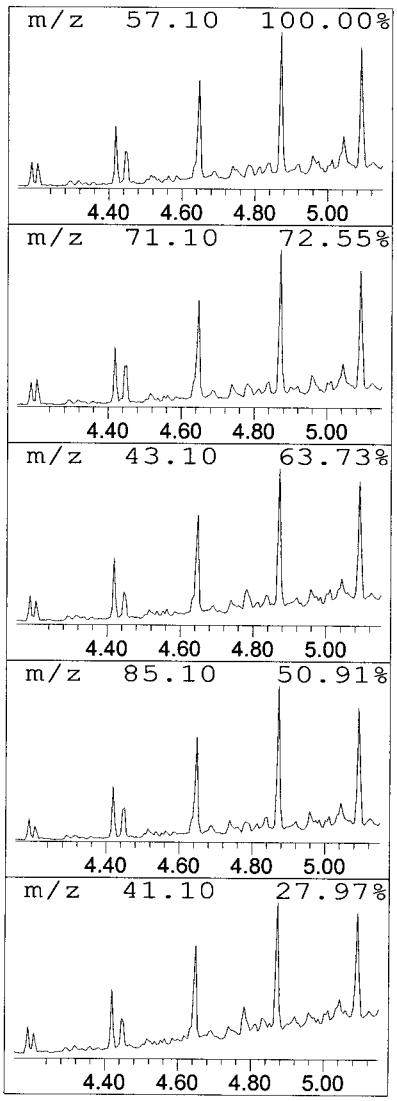
Peak Number 3 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.65	30.88 UG	1670130	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonadecane	268	C19H40	000629-92-5	98
2	Heptadecane	240	C17H36	000629-78-7	97
3	Heptadecane	240	C17H36	000629-78-7	97
4	Pentacosane	352	C25H52	000629-99-2	96
5	Heptadecane	240	C17H36	000629-78-7	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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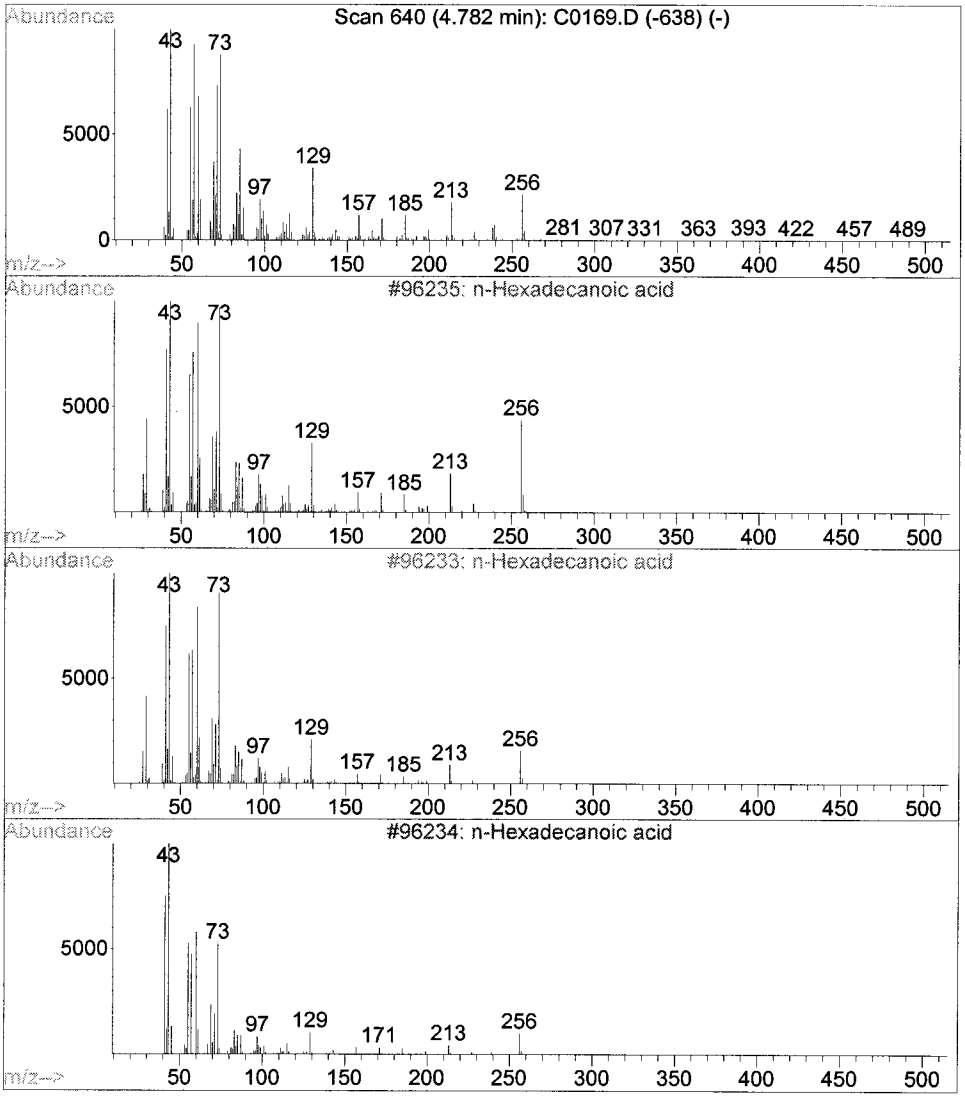
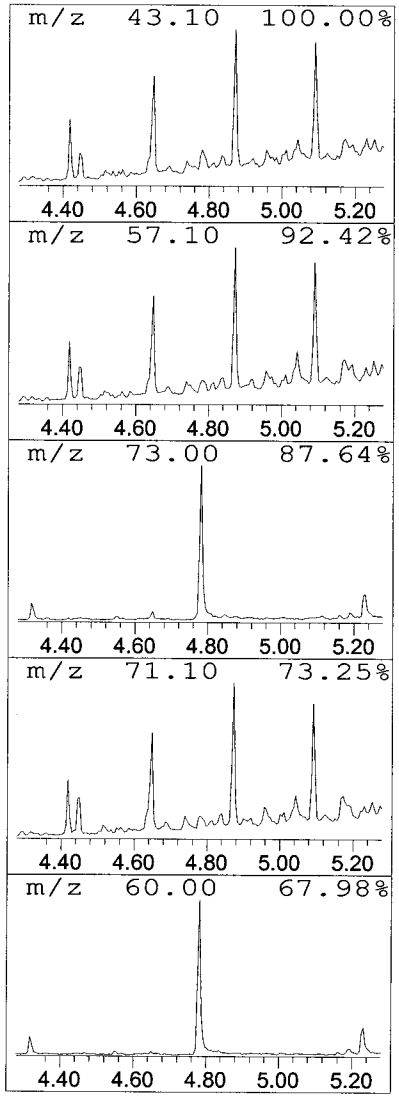
Peak Number 4 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.78	12.08 UG	653272	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	97
2	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	90
3	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	83
4	Sulfurous acid, 2-propyl tetrade...	320	C17H36O3S	1000309-12-5	49
5	Sulfurous acid, dodecyl 2-propyl...	292	C15H32O3S	1000309-12-3	46





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

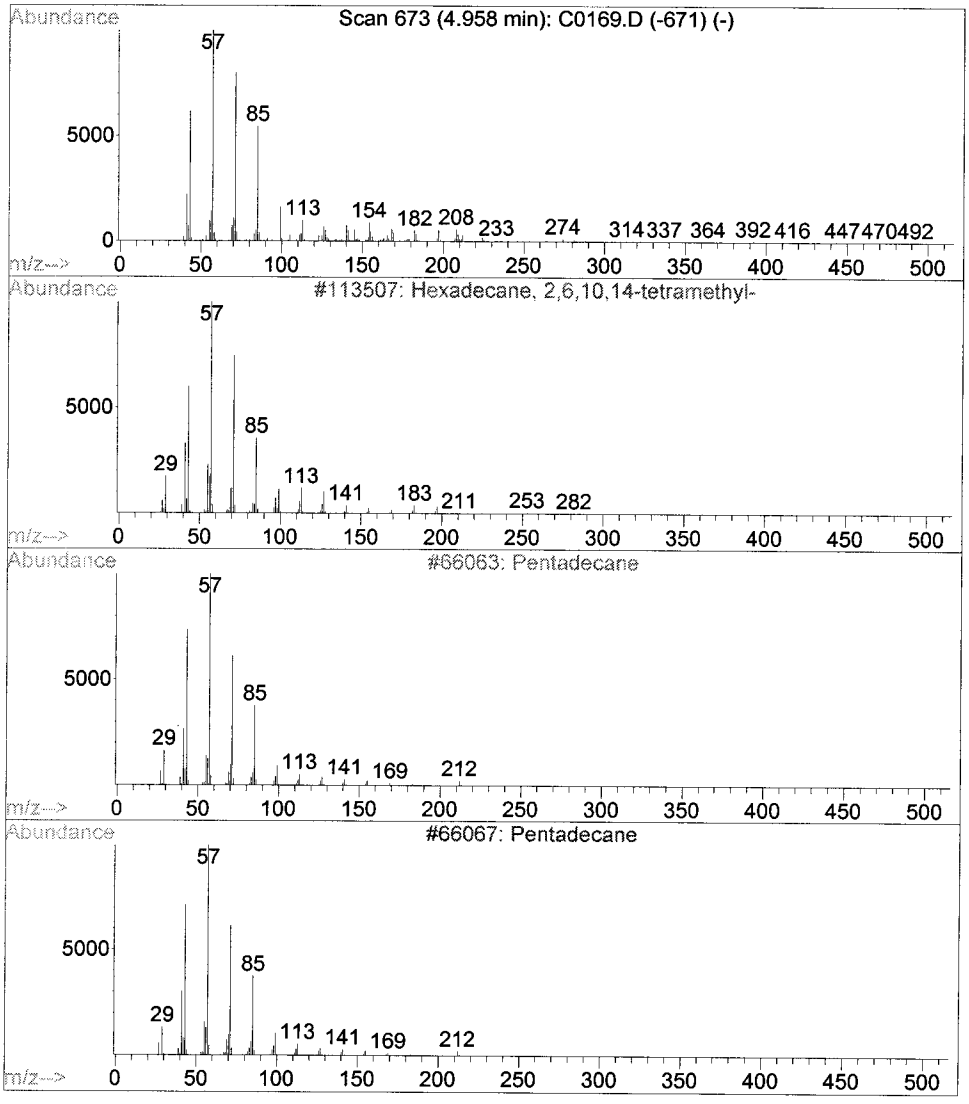
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

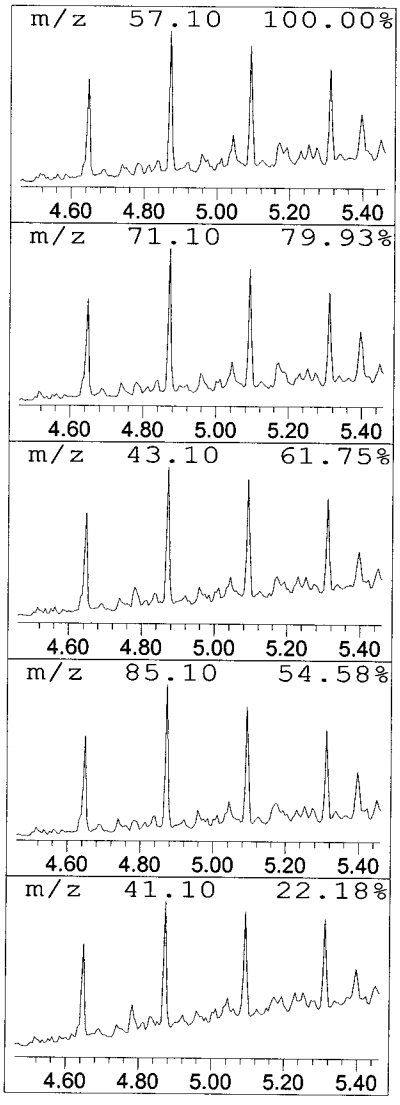
****

Peak Number 5 Unknown Hydrocarbon Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.96	8.01 UG	433205	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	90
2	Pentadecane	212	C15H32	000629-62-9	90
3	Pentadecane	212	C15H32	000629-62-9	90
4	Heptadecane, 9-octyl-	352	C25H52	007225-64-1	87
5	Heneicosane	296	C21H44	000629-94-7	87





E13-09196

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

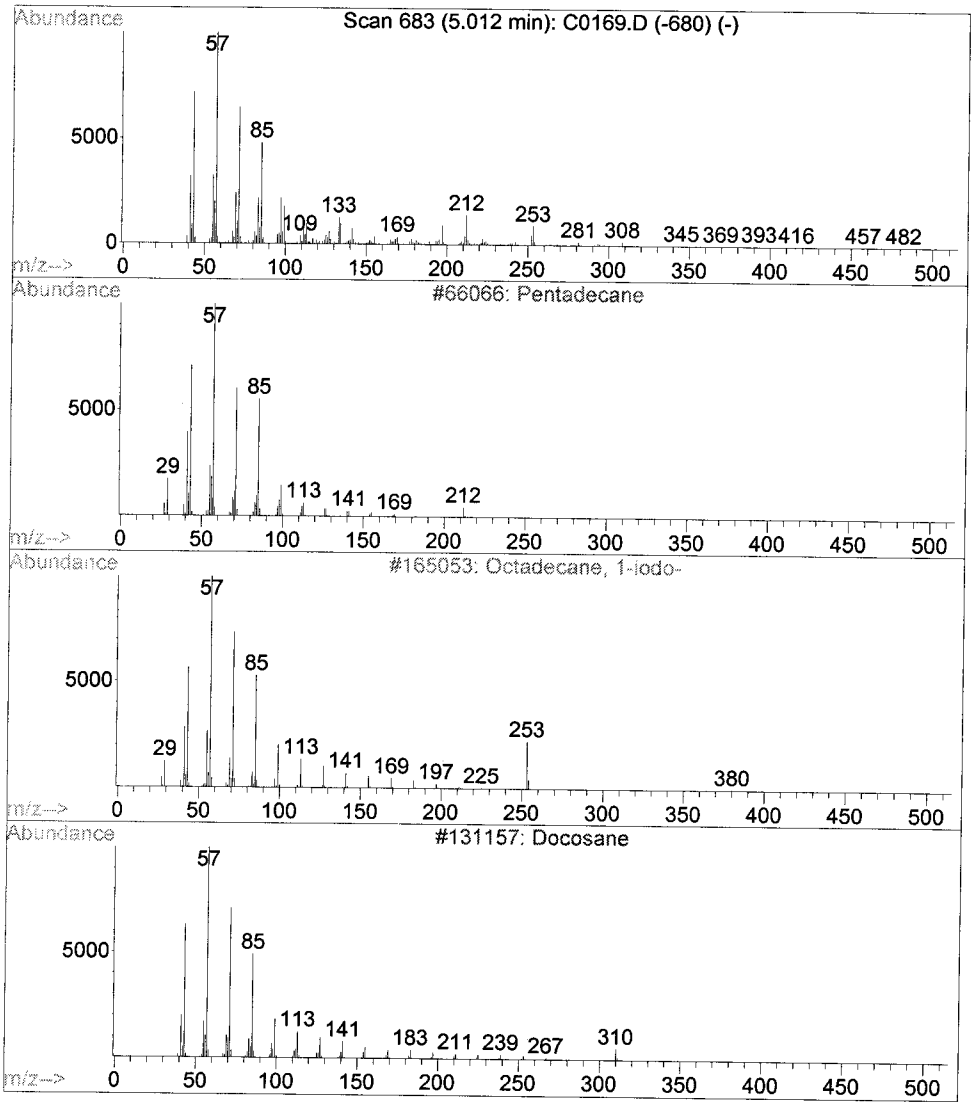
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

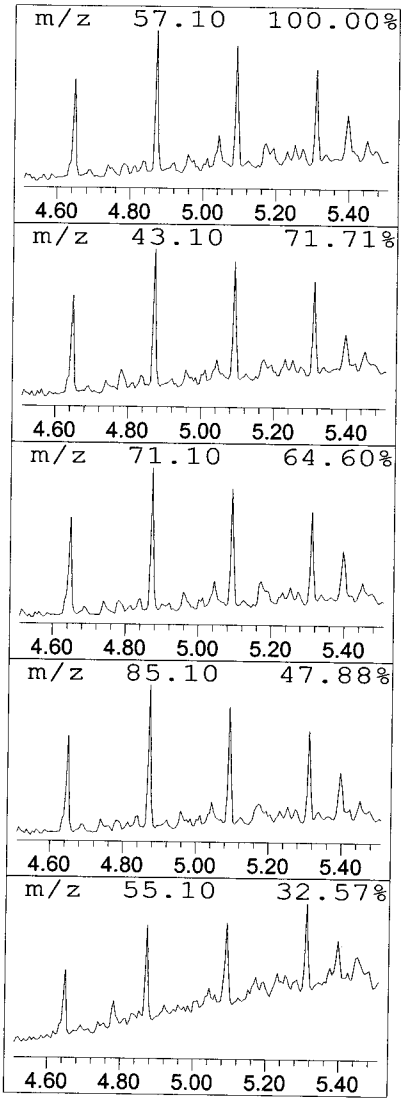
****

Peak Number 6 Unknown Hydrocarbon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.01	7.89 UG	426950	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane	212	C15H32	000629-62-9	92
2	Octadecane, 1-iodo-	380	C18H37I	000629-93-6	91
3	Docosane	310	C22H46	000629-97-0	90
4	Octadecane	254	C18H38	000593-45-3	90
5	Eicosane	282	C20H42	000112-95-8	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

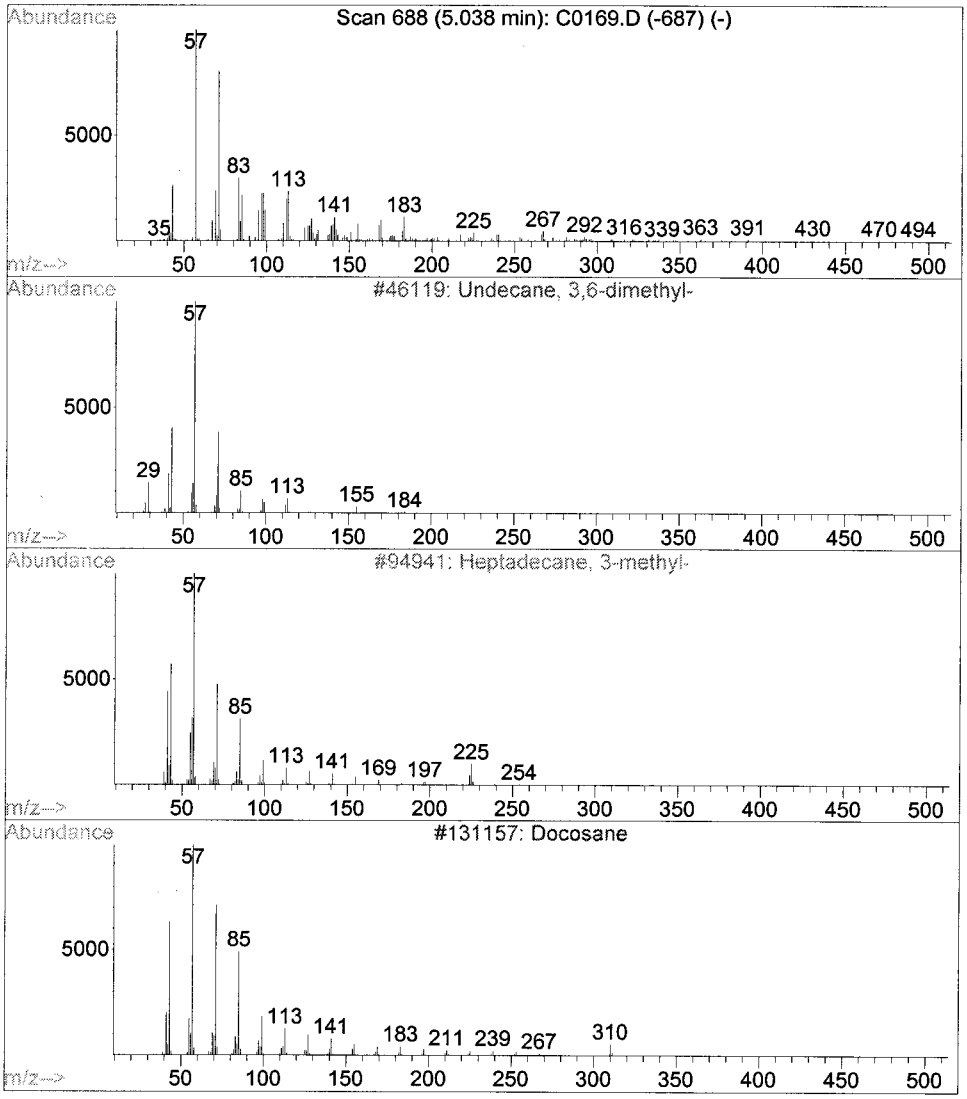
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

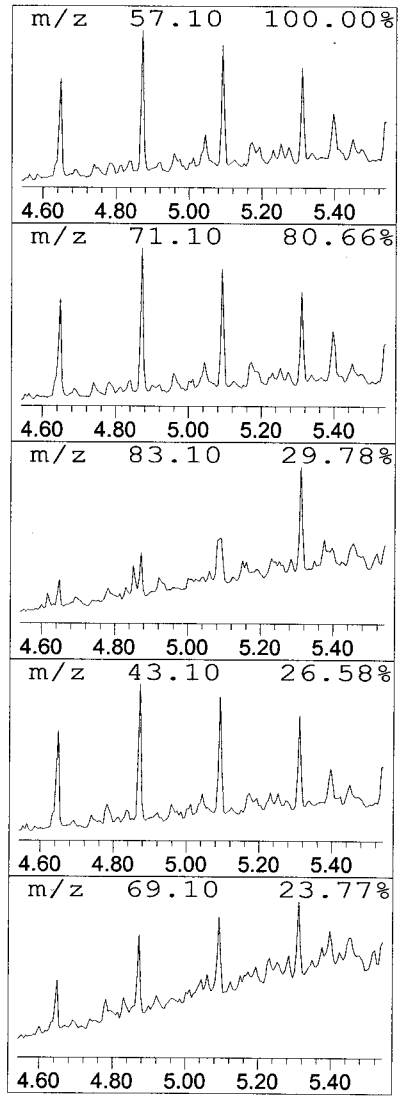
****

Peak Number 7 Unknown Hydrocarbon Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.04	7.43 UG	402046	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 3,6-dimethyl-	184	C13H28	017301-28-9	87
2	Heptadecane, 3-methyl-	254	C18H38	006418-44-6	76
3	Docosane	310	C22H46	000629-97-0	74
4	Pentadecane, 2,6,10-trimethyl-	254	C18H38	003892-00-0	72
5	Undecane, 3,5-dimethyl-	184	C13H28	017312-81-1	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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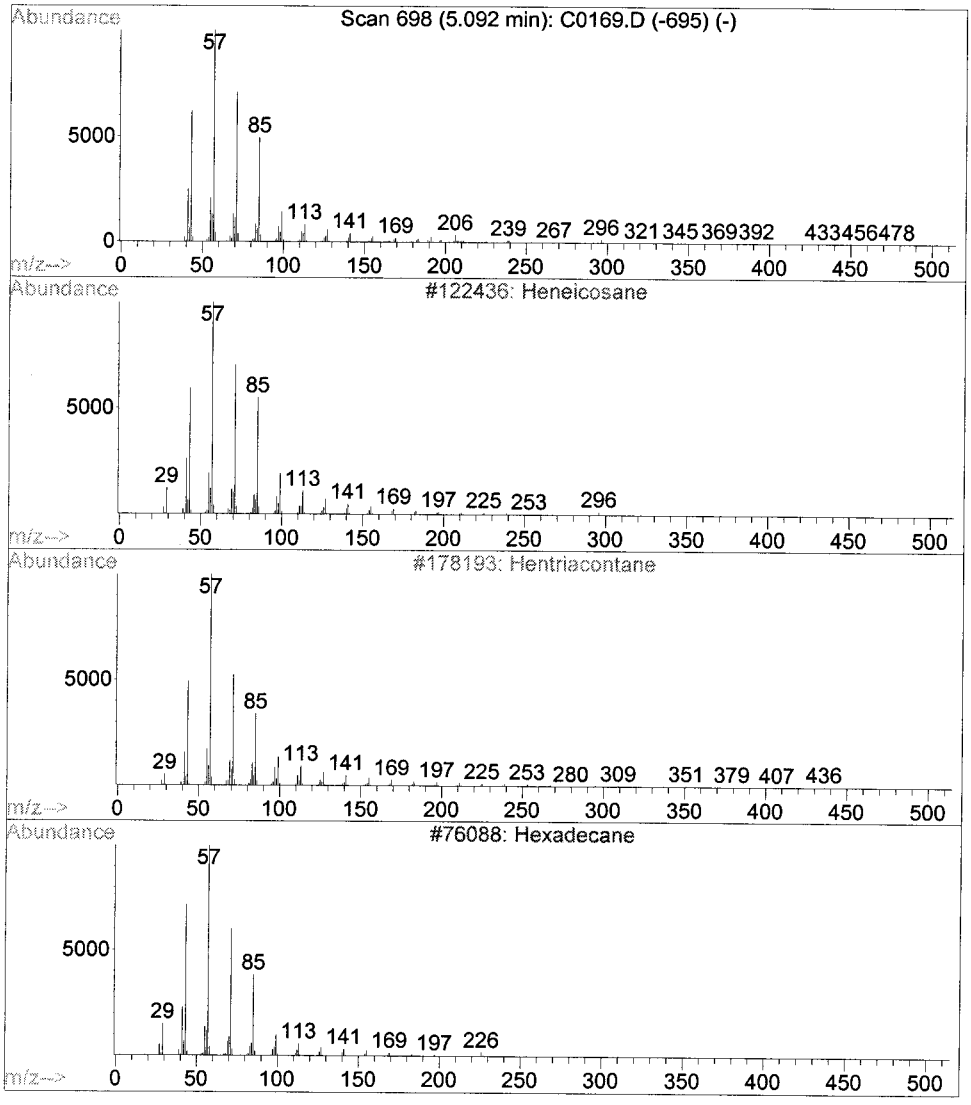
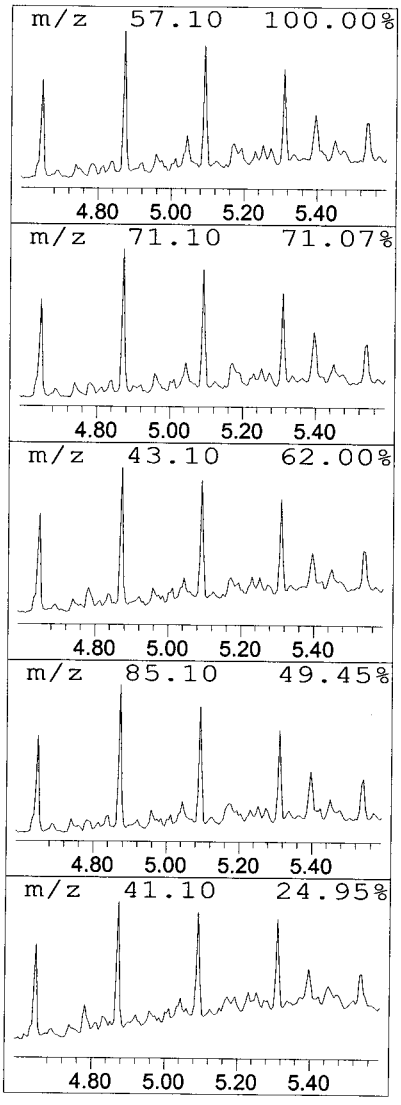
Peak Number 8 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.09	37.98 UG	2054070	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	98
2	Hentriacontane	437	C31H64	000630-04-6	97
3	Hexadecane	226	C16H34	000544-76-3	96
4	Hexadecane	226	C16H34	000544-76-3	94
5	Hexadecane	226	C16H34	000544-76-3	94





Library Search Compound Report

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Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

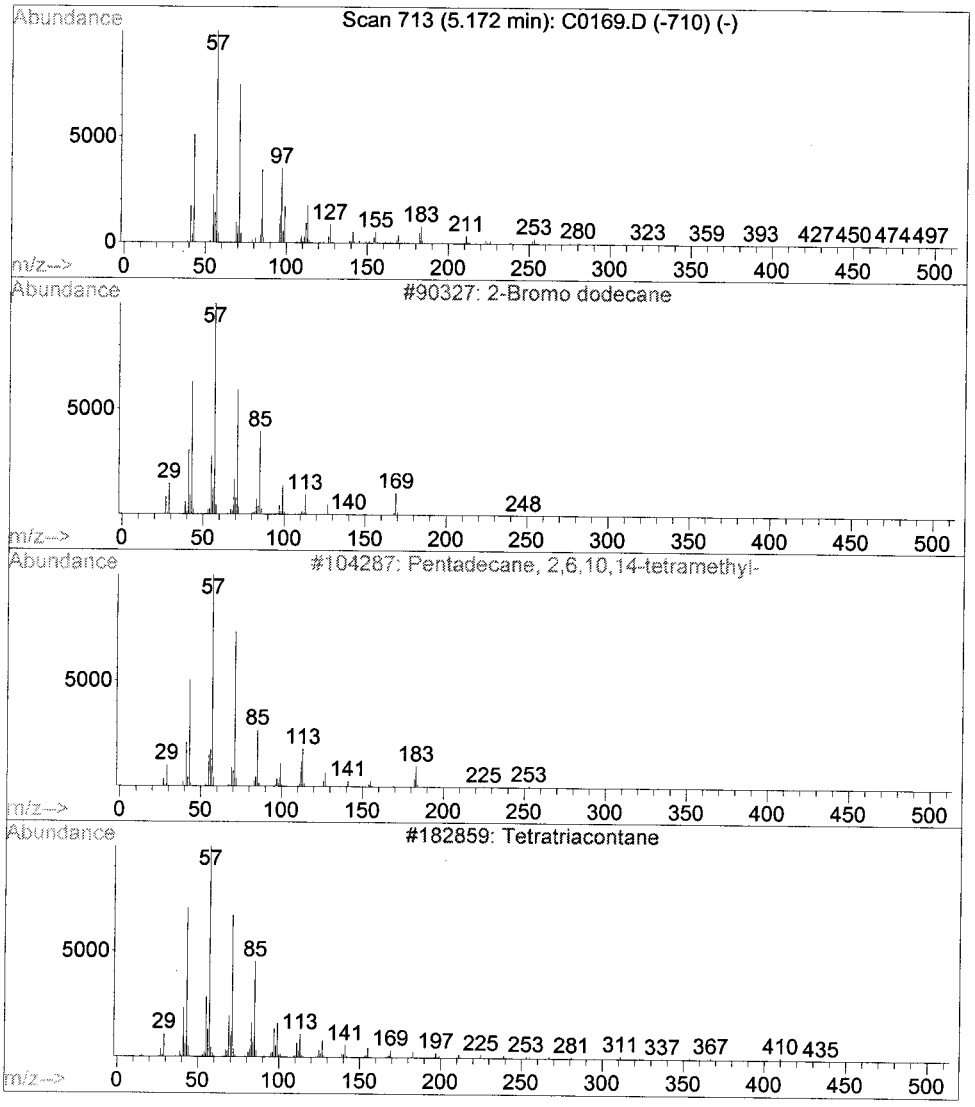
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

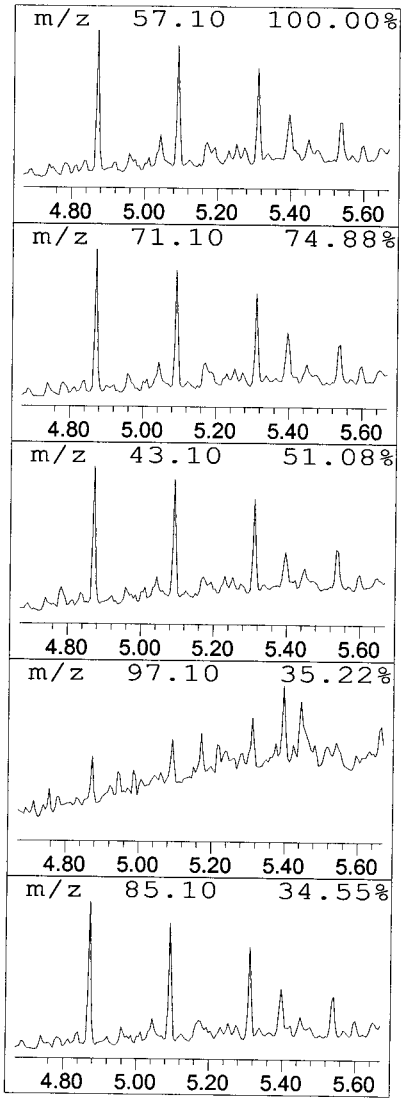
****

Peak Number 9 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.17	14.92 UG	806693	Phenanthrene-d10	4.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Bromo dodecane	248	C12H25Br	013187-99-0	89
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	74
3	Tetratriacontane	479	C34H70	014167-59-0	72
4	Hexacosane	366	C26H54	000630-01-3	70
5	Tetradecane, 4-methyl-	212	C15H32	025117-24-2	68





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

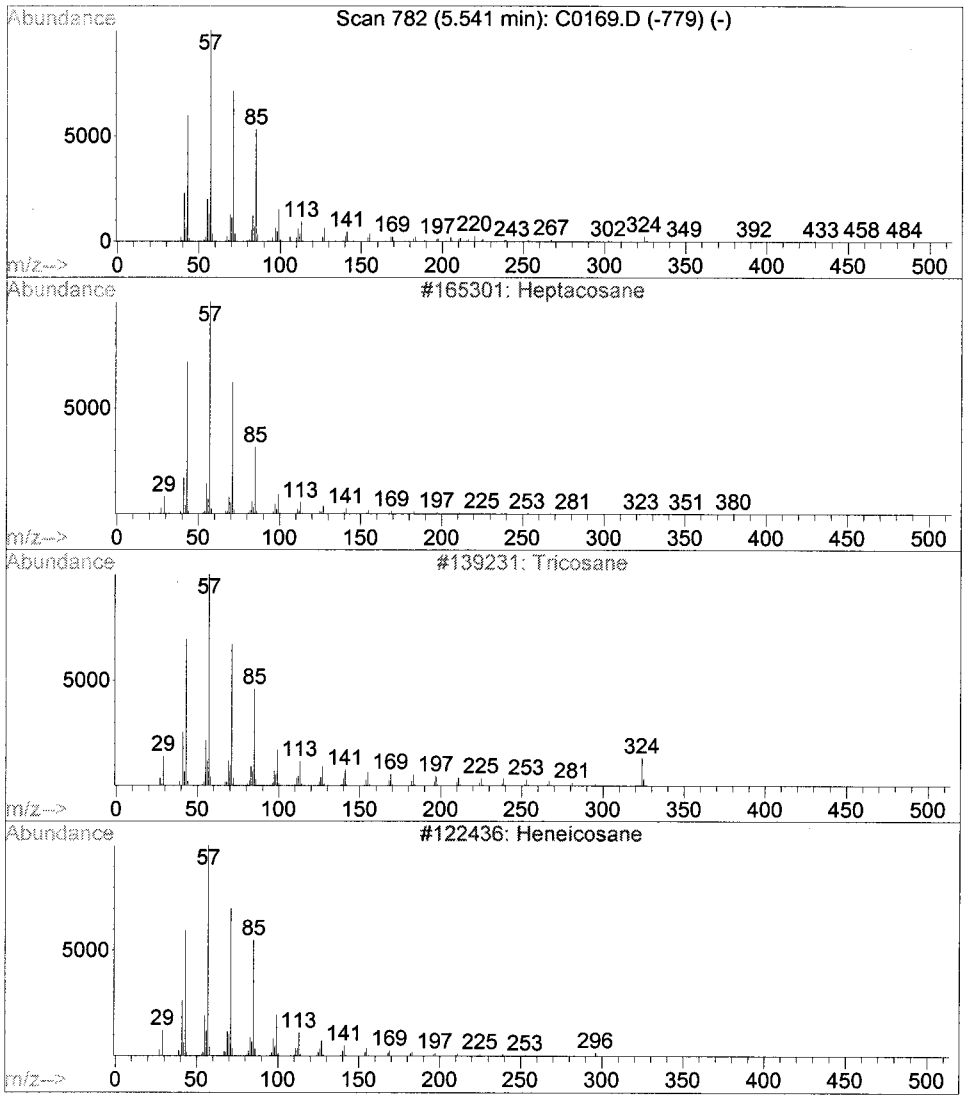
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

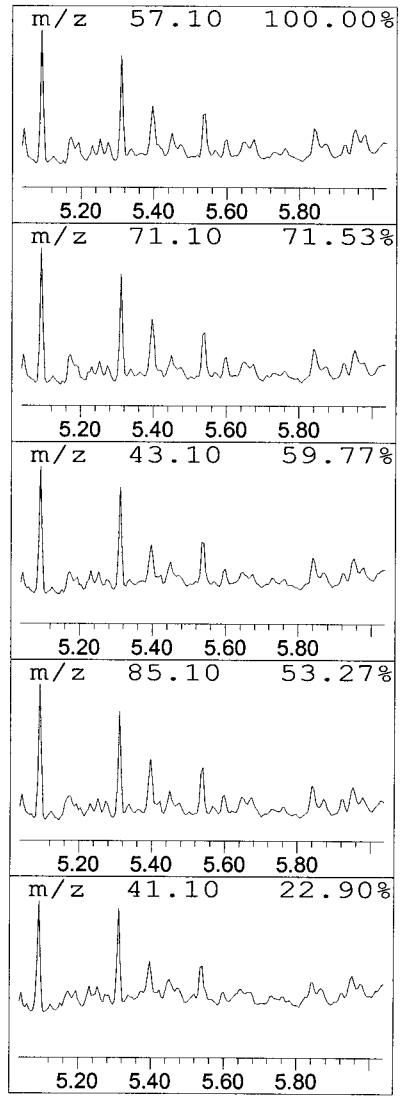
****

Peak Number 10 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.54	22.01 UG	1051980	Chrysene-d12	6.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptacosane	380	C27H56	000593-49-7	97
2	Tricosane	324	C23H48	000638-67-5	94
3	Heneicosane	296	C21H44	000629-94-7	91
4	Octacosane	394	C28H58	000630-02-4	91
5	Triacontane	422	C30H62	000638-68-6	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

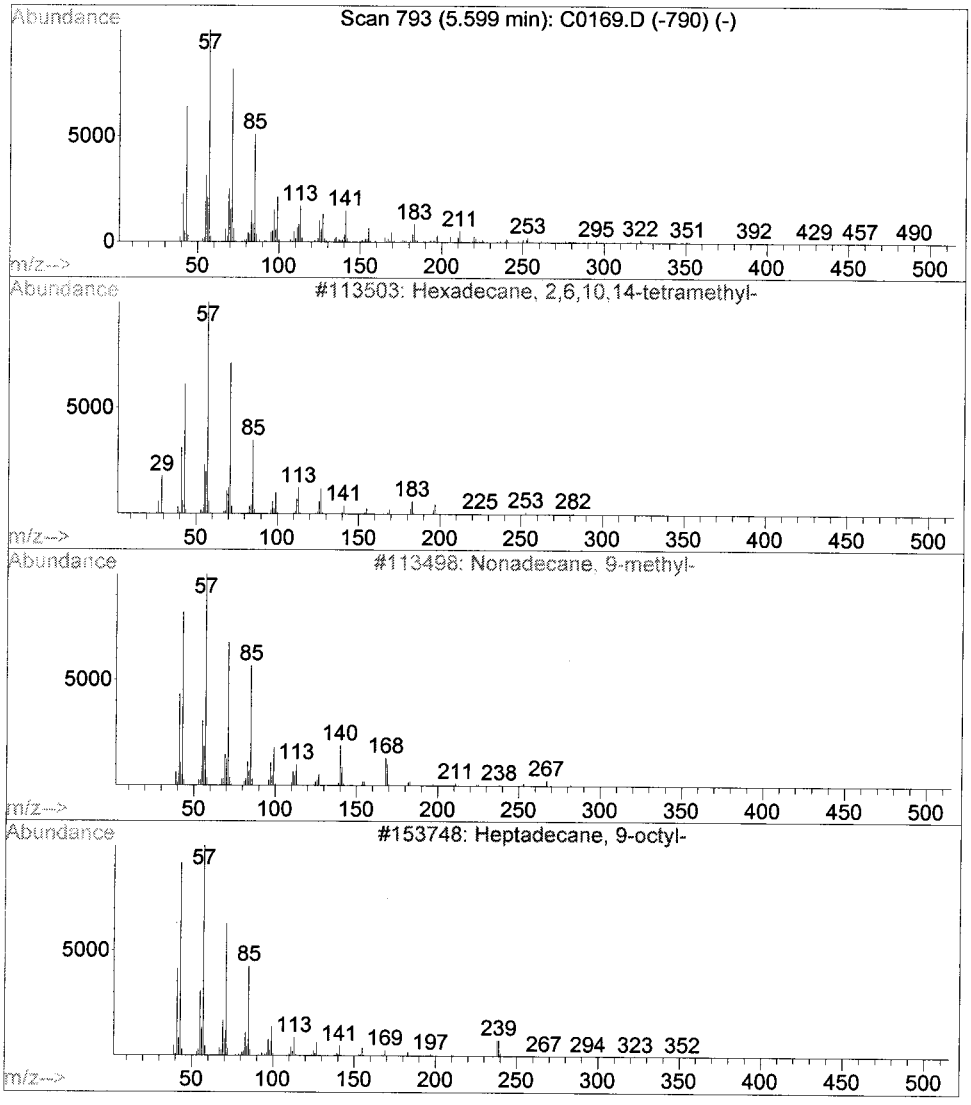
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

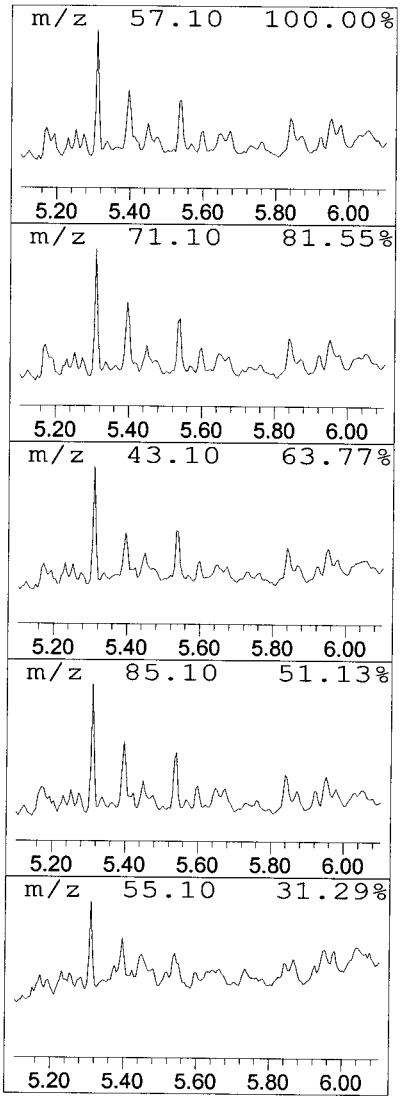
****

Peak Number 11 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.60	13.56 UG	648171	Chrysene-d12	6.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	93
2	Nonadecane, 9-methyl-	282	C20H42	013287-24-6	91
3	Heptadecane, 9-octyl-	352	C25H52	007225-64-1	91
4	Heptadecane, 3-methyl-	254	C18H38	006418-44-6	91
5	Docosane, 11-butyl-	366	C26H54	013475-76-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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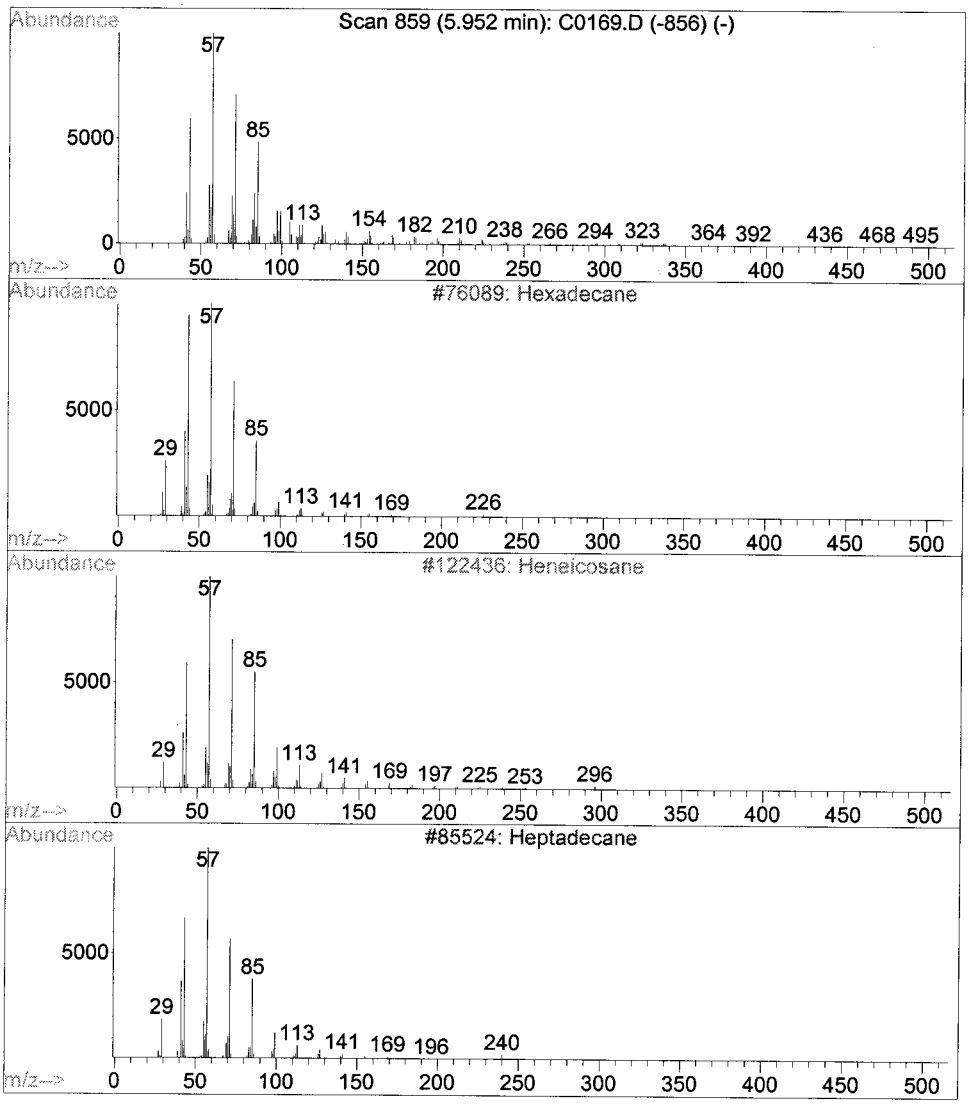
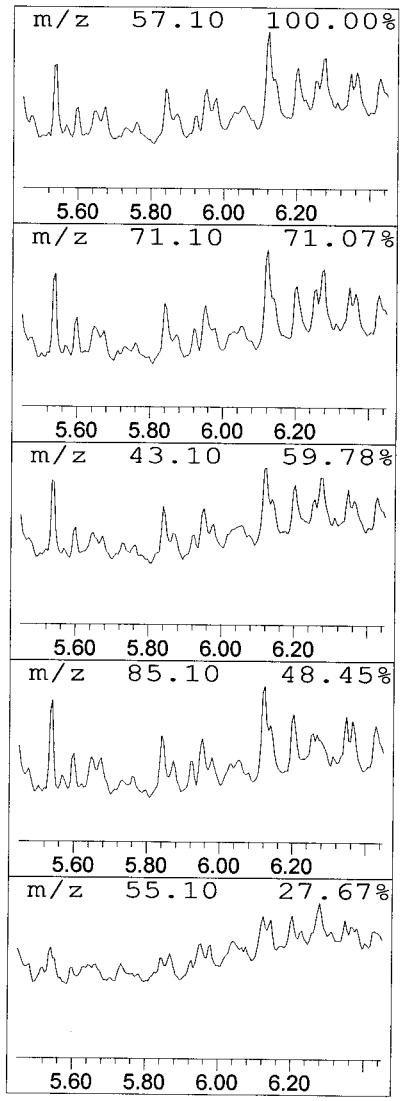
Peak Number 12 Unknown Hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.95	21.31 UG	1018190	Chrysene-d12	6.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	95
2	Heneicosane	296	C21H44	000629-94-7	94
3	Heptadecane	240	C17H36	000629-78-7	93
4	Pentadecane	212	C15H32	000629-62-9	93
5	Docosane, 5-butyl-	366	C26H54	055282-16-1	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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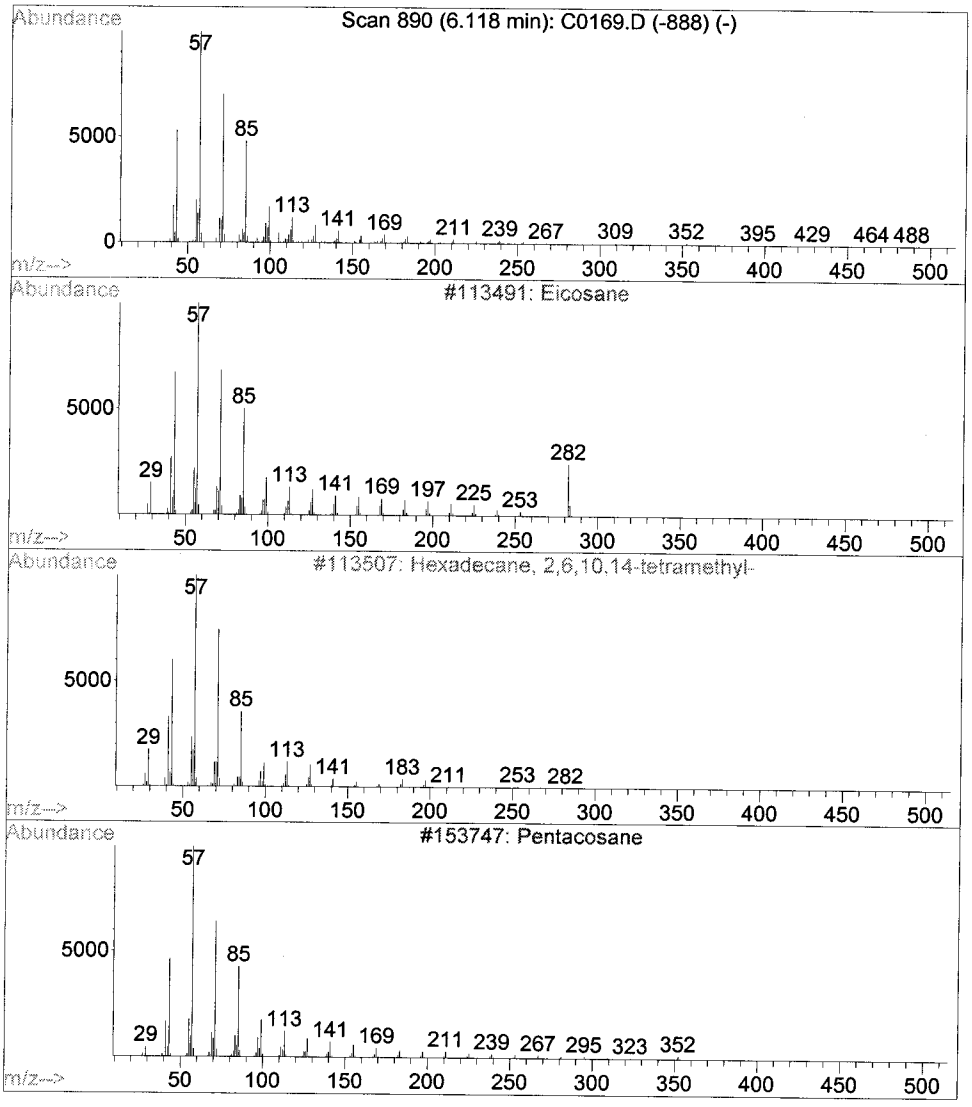
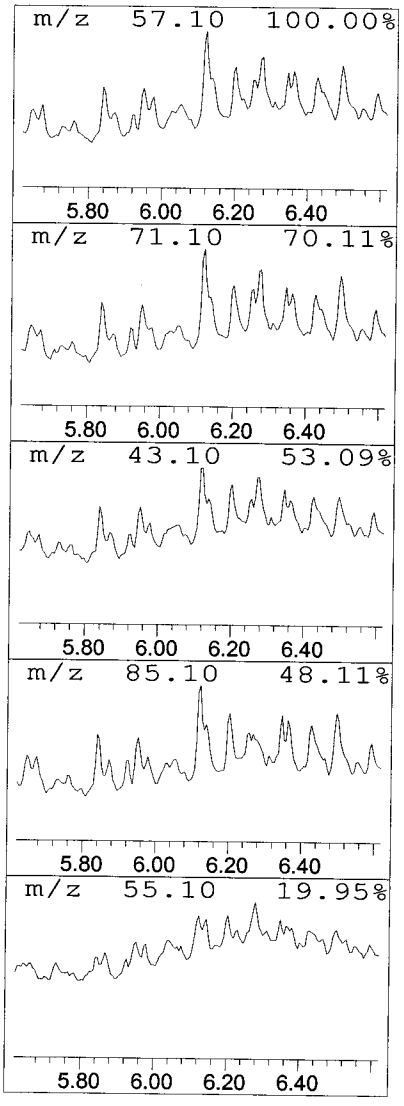
Peak Number 13 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.12	30.97 UG	1480160	Chrysene-d12	6.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	96
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	95
3	Pentacosane	352	C25H52	000629-99-2	94
4	Eicosane, 10-methyl-	296	C21H44	054833-23-7	93
5	Heptadecane, 3-methyl-	254	C18H38	006418-44-6	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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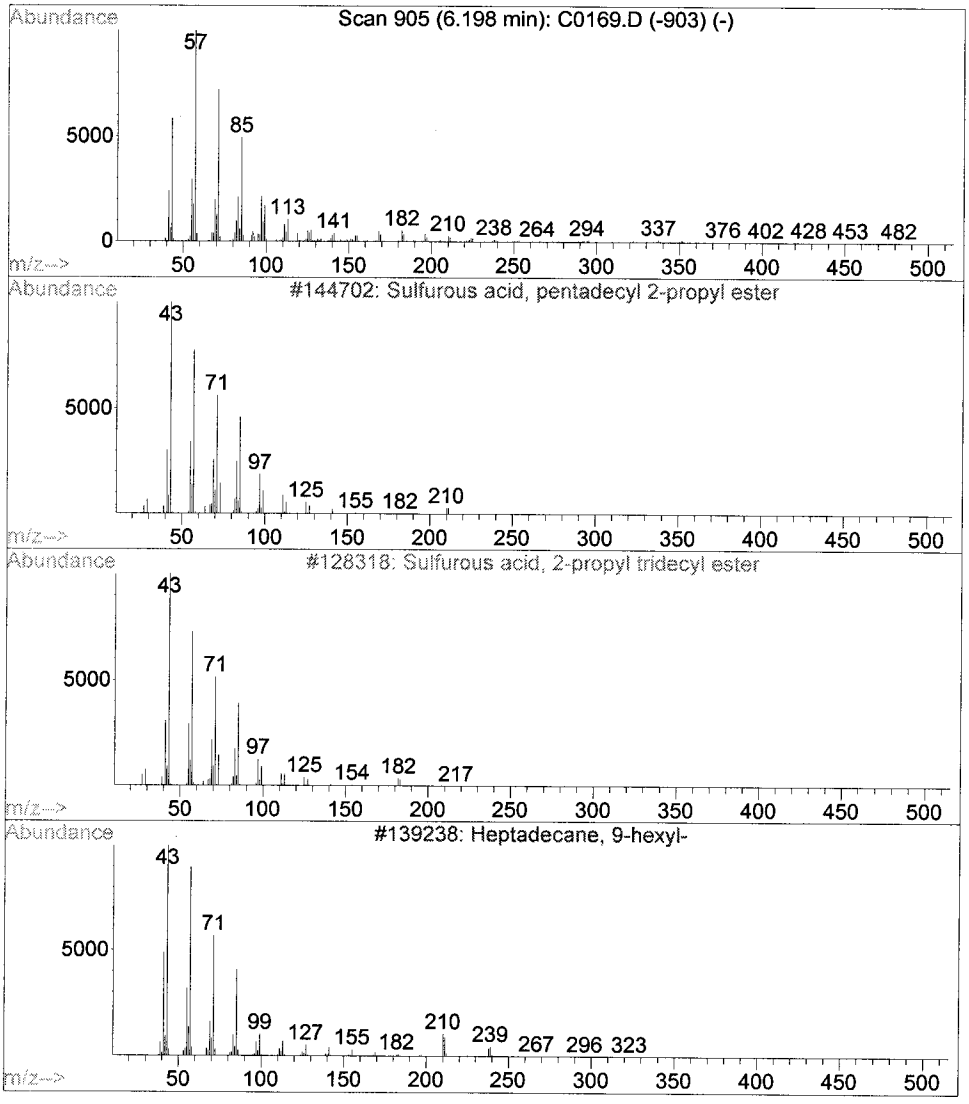
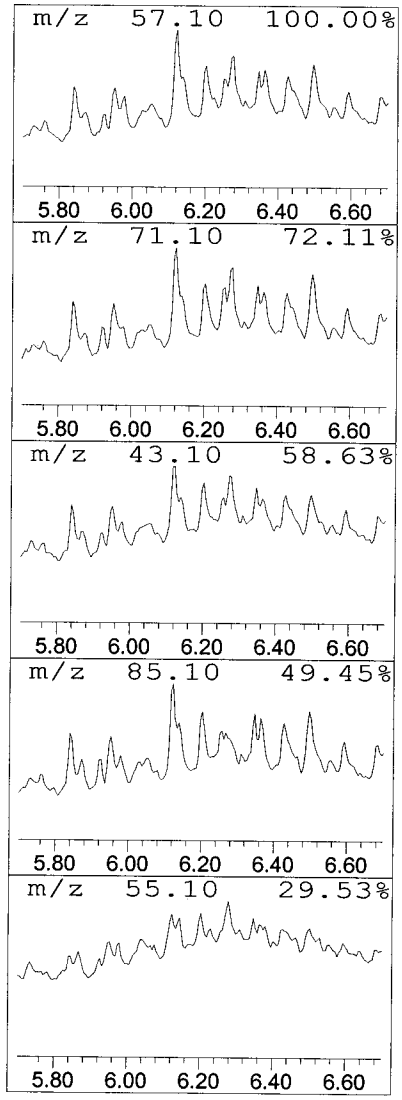
Peak Number 14 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.20	23.05 UG	1101330	Chrysene-d12	6.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Sulfurous acid, pentadecyl 2-pro...	334	C18H38O3S	1000309-12-6	91
2	Sulfurous acid, 2-propyl tridecy...	306	C16H34O3S	1000309-12-4	91
3	Heptadecane, 9-hexyl-	324	C23H48	055124-79-3	90
4	Tetracosane, 11-decyl-	479	C34H70	055429-84-0	74
5	Sulfurous acid, butyl pentadecyl...	348	C19H40O3S	1000309-18-2	74





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0169.D
Acq On : 23 Sep 2013 12:09
Operator : EDM
Sample : C-4_IMP.,E13-09196-004,Xs,15.08g,0,1
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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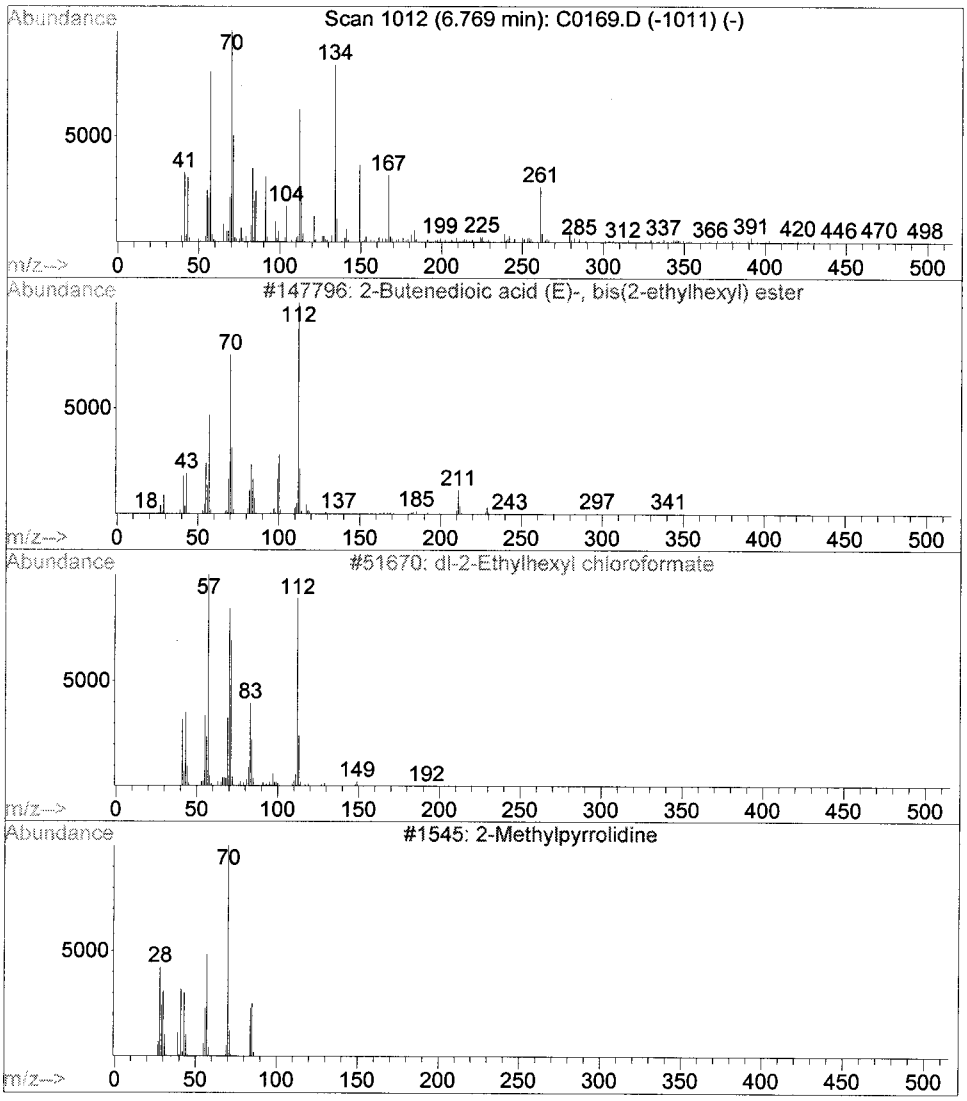
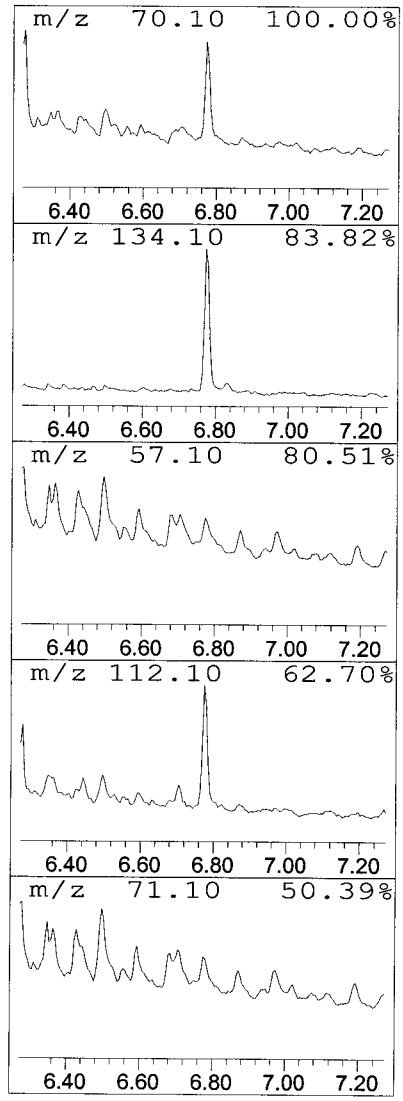
Peak Number 15 Unknown SV Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.77	14.91 UG	712579	Chrysene-d12	6.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Butenedioic acid (E)-, bis(2-e...	340	C20H36O4	000141-02-6	35
2	dl-2-Ethylhexyl chloroformate	192	C9H17ClO2	024468-13-1	25
3	2-Methylpyrrolidine	85	C5H11N	000765-38-8	25
4	Benzenamine, 2-(1,1-dimethylethyl)-	149	C10H15N	006310-21-0	25
5	N-Ethyl-2,3-xylidine	149	C10H15N	041115-23-5	22





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 23 12:46:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

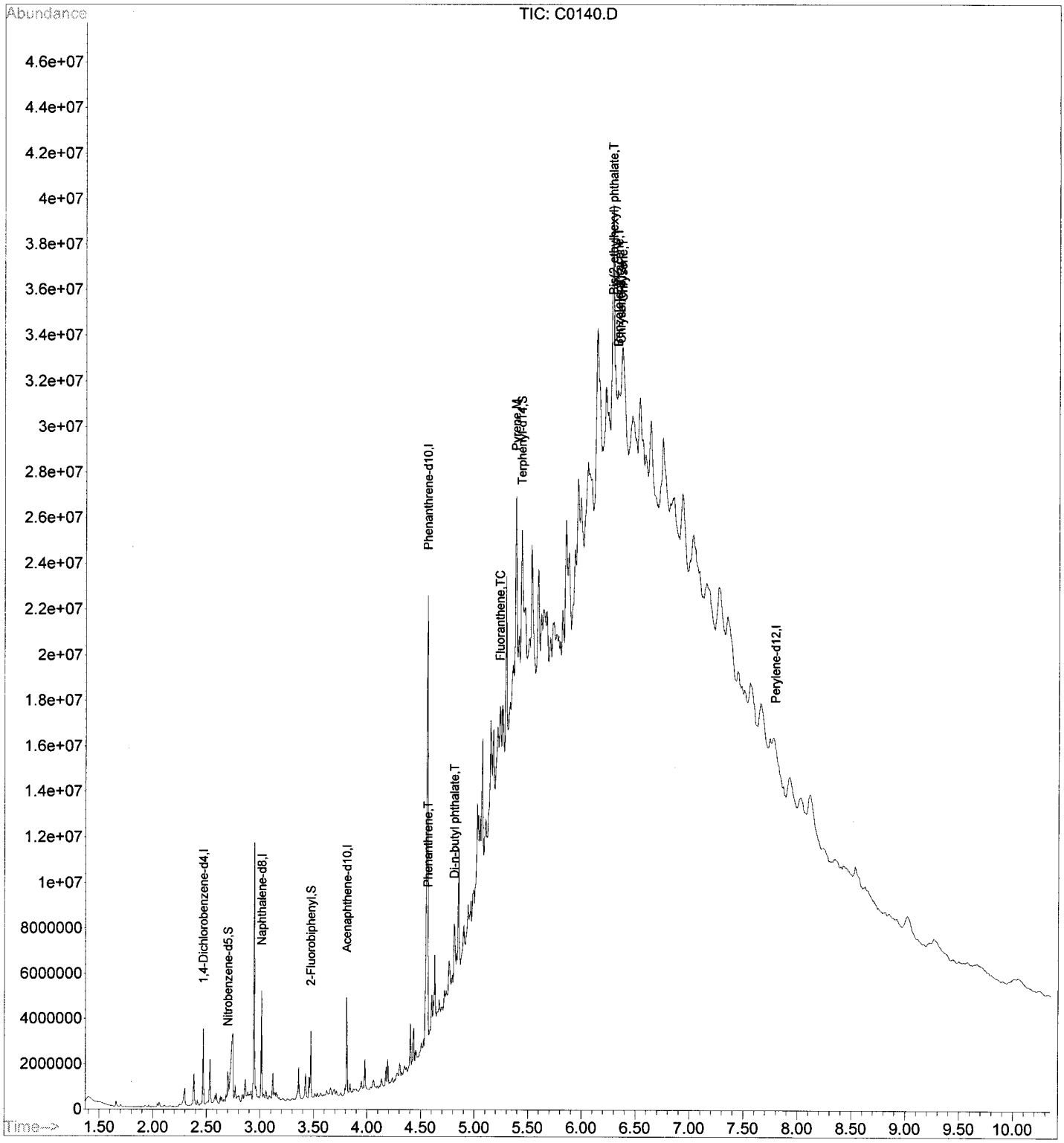
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	266891	40.00	UG	0.00
23) Naphthalene-d8	3.01	136	1043636	40.00	UG	-0.01
43) Acenaphthene-d10	3.81	164	519739	40.00	UG	-0.05
66) Phenanthrene-d10	4.55	188	845633	40.00	UG	-0.10
82) Chrysene-d12	6.35	240	652812m	40.00	UG	-0.09
92) Perylene-d12	7.79	264	433446m	40.00	UG	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.70	82	217978	25.81	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery =	51.62%		
47) 2-Fluorobiphenyl	3.47	172	464635	26.44	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery =	52.88%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery =	0.00%#		
84) Terphenyl-d14	5.43	244	514607m	29.74	UG	-0.17
Spiked Amount 50.000	Range 15 - 122		Recovery =	59.48%		
Target Compounds						Qvalue
75) Phenanthrene	4.57	178	107650	4.70	UG	# 17
78) Di-n-butyl phthalate	4.81	149	688299m	27.06	UG	
79) Fluoranthene	5.24	202	249957m	10.34	UG	
83) Pyrene	5.38	202	172590m	7.84	UG	
88) Benzo[a]anthracene	6.34	228	28541m	1.62	UG	
89) Chrysene	6.36	228	97549m	5.77	UG	
90) Bis(2-ethylhexyl) phthalat	6.28	149	3848345	324.34	UG	# 97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 23 12:46:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0170.D
Acq On : 23 Sep 2013 12:25
Operator : EDM
Sample : C-5_SPHI,E13-09196-005DL,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 23 12:48:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

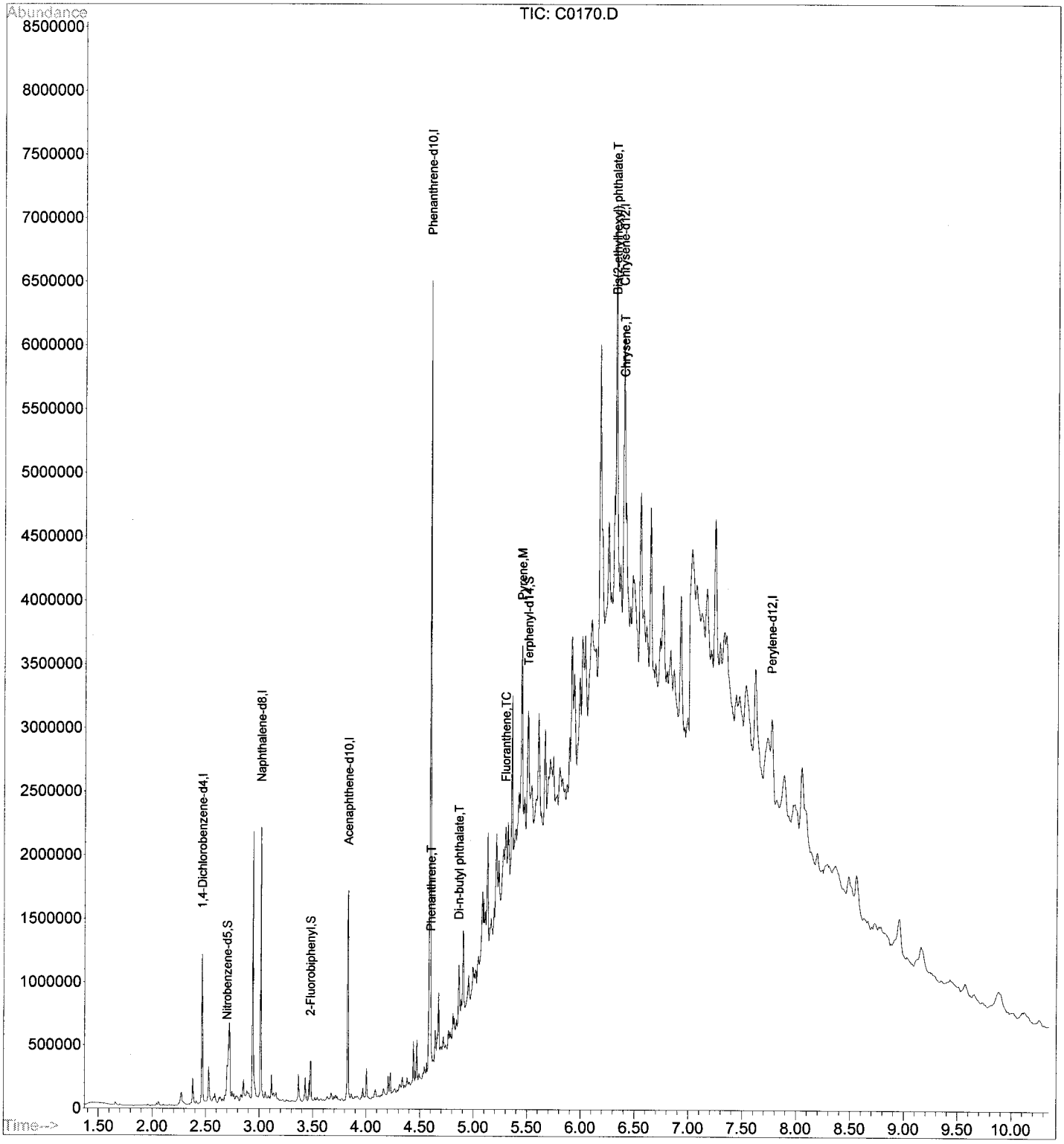
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.46	152	127775	40.00	UG		-0.01
23) Naphthalene-d8	3.01	136	533645	40.00	UG		-0.01
43) Acenaphthene-d10	3.83	164	280512	40.00	UG		-0.03
66) Phenanthrene-d10	4.60	188	401460	40.00	UG		-0.05
82) Chrysene-d12	6.38	240	265992	40.00	UG		-0.05
92) Perylene-d12	7.77	264	267252	40.00	UG		-0.01
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#				
6) Phenol-d5	0.00	99	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#				
24) Nitrobenzene-d5	2.70	82	36171	8.37	UG		-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 16.74%#				
47) 2-Fluorobiphenyl	3.48	172	76802	8.10	UG		-0.02
Spiked Amount 50.000	Range 33 - 91		Recovery = 16.20%#				
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG		
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#				
84) Terphenyl-d14	5.50	244	62921m	8.92	UG		-0.10
Spiked Amount 50.000	Range 15 - 122		Recovery = 17.84%				
Target Compounds							Qvalue
75) Phenanthrene	4.61	178	11282m	1.04	UG		
78) Di-n-butyl phthalate	4.86	149	102656	8.50	UG		98
79) Fluoranthene	5.30	202	27124	2.36	UG	#	78
83) Pyrene	5.44	202	21688m	2.42	UG		
89) Chrysene	6.40	228	14149	2.05	UG	#	69
90) Bis(2-ethylhexyl) phthalat	6.32	149	561526m	116.15	UG		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : C0170.D
Acq On : 23 Sep 2013 12:25
Operator : EDM
Sample : C-5_SPHI,E13-09196-005DL,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,5
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 23 12:48:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.395	3	6	28	rVB4	250377	831918	4.86%	0.816%
2	2.298	168	175	177	rBV	732841	692088	4.04%	0.679%
3	2.383	188	191	195	rVB	1396044	882499	5.15%	0.866%
4	2.469	204	207	210	rVB	3334883	1569896	9.16%	1.540%
5	2.533	216	219	222	rVB	1898579	1206526	7.04%	1.183%
6	2.699	248	250	252	rBV	1118873	702092	4.10%	0.689%
7	2.747	252	259	261	rVB	2835911	4116506	24.03%	4.038%
8	2.800	265	269	273	rVB4	290080	446576	2.61%	0.438%
9	2.864	277	281	282	rBV3	870688	692990	4.04%	0.680%
10	2.944	293	296	298	rBV	11324801	6325652	36.92%	6.205%
11	3.014	306	309	311	rVB	4710277	2174055	12.69%	2.133%
12	3.121	326	329	331	rBV	1136331	685622	4.00%	0.673%
13	3.361	368	374	380	rBV2	1402529	1025483	5.99%	1.006%
14	3.425	381	386	390	rBV	1088660	770710	4.50%	0.756%
15	3.457	390	392	393	rBV	927509	463724	2.71%	0.455%
16	3.473	393	395	398	rVB	2911627	1300301	7.59%	1.275%
17	3.810	456	458	461	rVB	4183975	2036637	11.89%	1.998%
18	3.981	487	490	495	rVB	1310042	720334	4.20%	0.707%
19	4.178	524	527	528	rBV	836187	492743	2.88%	0.483%
20	4.194	528	530	532	rVB	1080515	531522	3.10%	0.521%
21	4.280	543	546	548	rBV3	335393	404012	2.36%	0.396%
22	4.307	548	551	553	rVB2	585897	482430	2.82%	0.473%
23	4.403	567	569	571	rBV2	1878362	957975	5.59%	0.940%
24	4.435	572	575	577	rVV	1490251	1013334	5.91%	0.994%
25	4.558	593	598	601	rBV	19816914	17133880	100.00%	16.807%
26	4.600	604	606	608	rVV	1564777	1162242	6.78%	1.140%
27	4.627	608	611	614	rVV	2802901	2094241	12.22%	2.054%
28	4.718	626	628	630	rBV2	905634	776533	4.53%	0.762%
29	4.761	634	636	640	rVV4	1614067	1924053	11.23%	1.887%
30	4.809	643	645	648	rVV2	2622567	2575148	15.03%	2.526%
31	4.851	650	653	656	rVB	5166158	3516689	20.52%	3.450%
32	5.022	683	685	688	rBV2	2959372	2995799	17.48%	2.939%
33	5.070	691	694	696	rVB2	5167150	3718804	21.70%	3.648%
34	5.145	706	708	711	rBV	3788472	3569082	20.83%	3.501%
35	5.290	733	735	738	rBV	7020153	4327282	25.26%	4.245%
36	5.380	749	752	755	rBV	7787808	6675767	38.96%	6.548%
37	5.434	759	762	766	rBV3	5805536	7378469	43.06%	7.238%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	5.525	777	779	786	rVB3	5634190	6637334	38.74%	6.511%
39	5.845	836	839	842	rBV	5352996	6936789	40.49%	6.804%

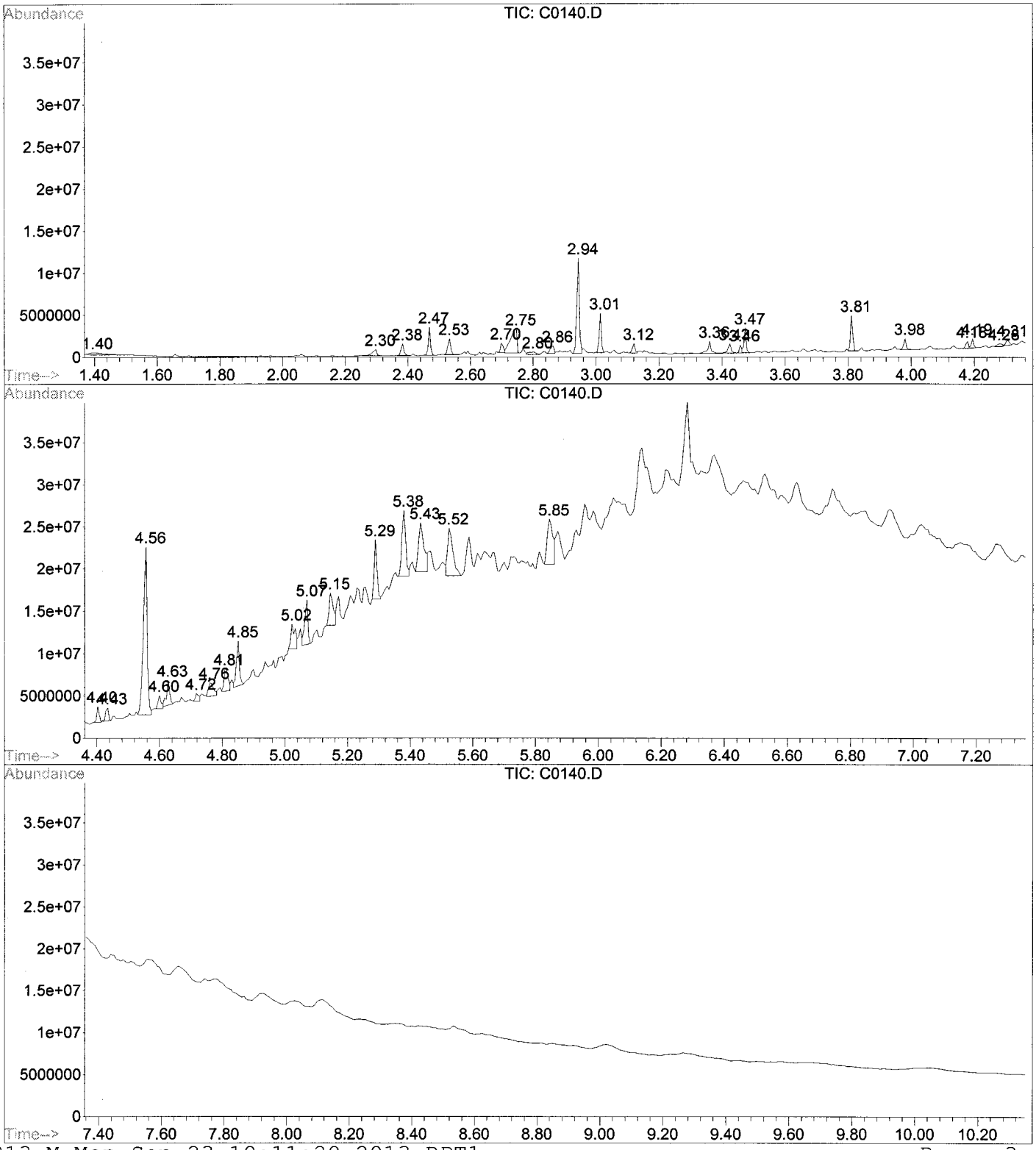
Sum of corrected areas: 101947737

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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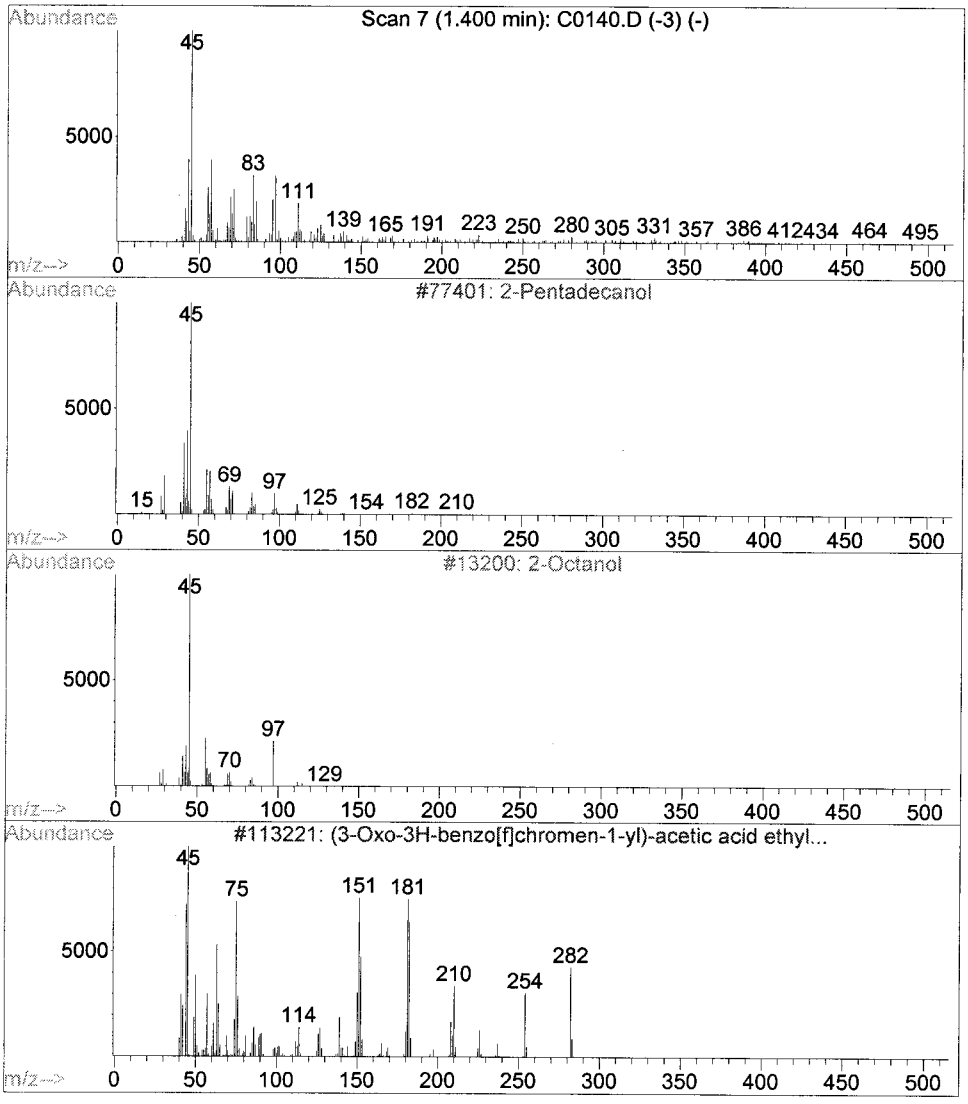
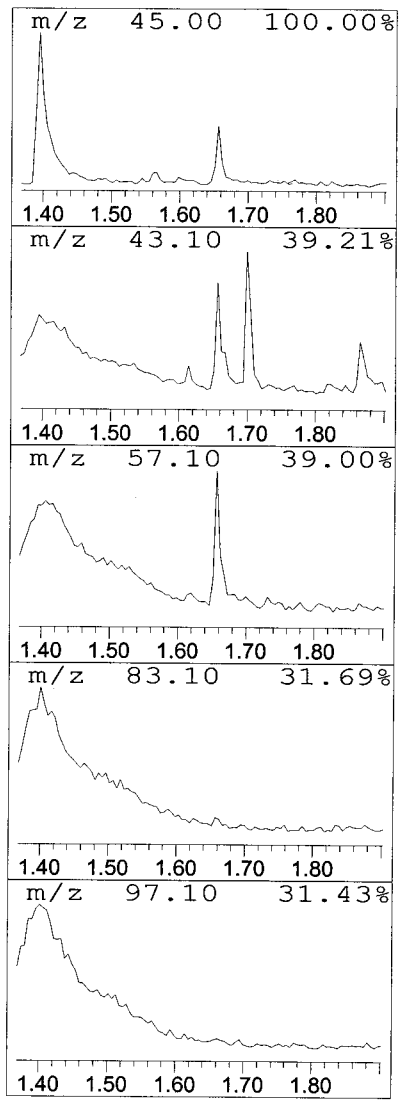
Peak Number 1 Unknown SV Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.40	21.20 UG	831918	1,4-Dichlorobenzene-d4	2.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentadecanol	228	C15H32O	001653-34-5	59
2	2-Octanol	130	C8H18O	000123-96-6	53
3	(3-Oxo-3H-benzo[f]chromen-1-yl)-...	282	C17H14O4	1000296-72-0	53
4	3-Methoxymethoxy-2-methyl-non-1-ene	200	C12H24O2	1000192-54-6	50
5	2-Tetradecanol	214	C14H30O	004706-81-4	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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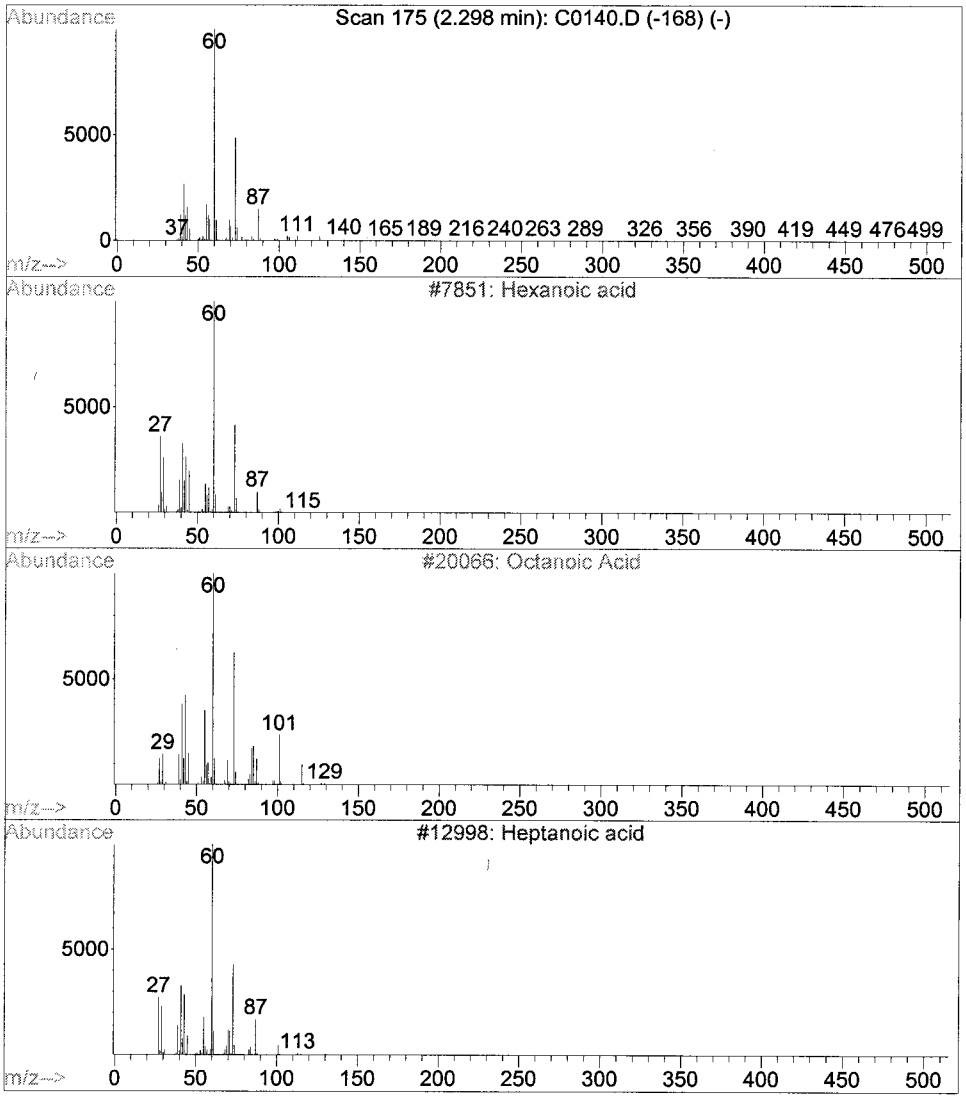
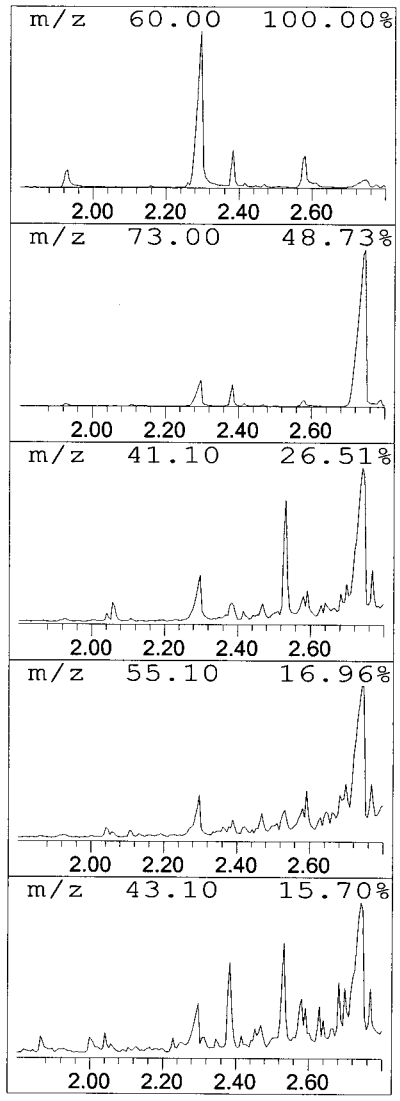
Peak Number 2 Unknown SV Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.30	17.63 UG	692088	1,4-Dichlorobenzene-d4	2.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanoic acid	116	C6H12O2	000142-62-1	78
2	Octanoic Acid	144	C8H16O2	000124-07-2	64
3	Heptanoic acid	130	C7H14O2	000111-14-8	59
4	Pentanoic acid, 3-methyl-	116	C6H12O2	000105-43-1	59
5	Pentanoic acid	102	C5H10O2	000109-52-4	59





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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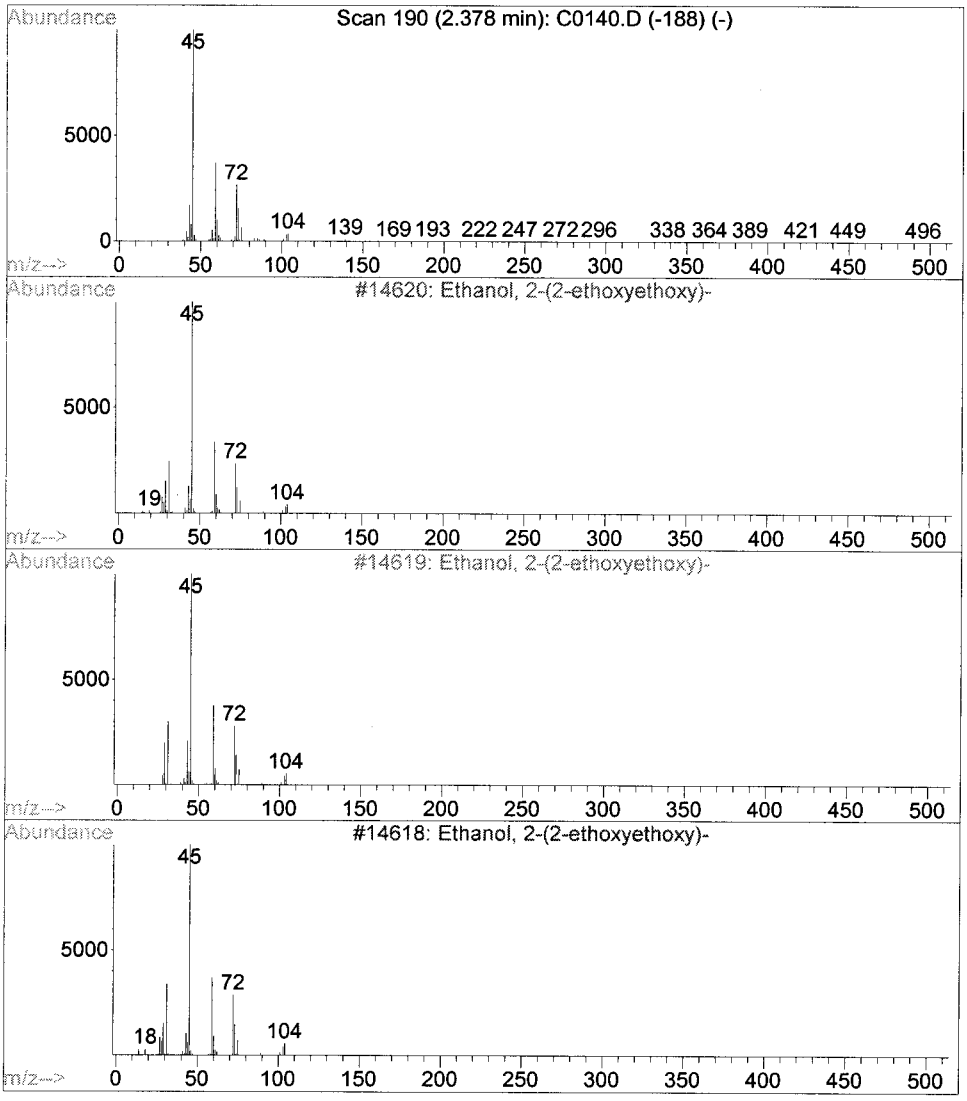
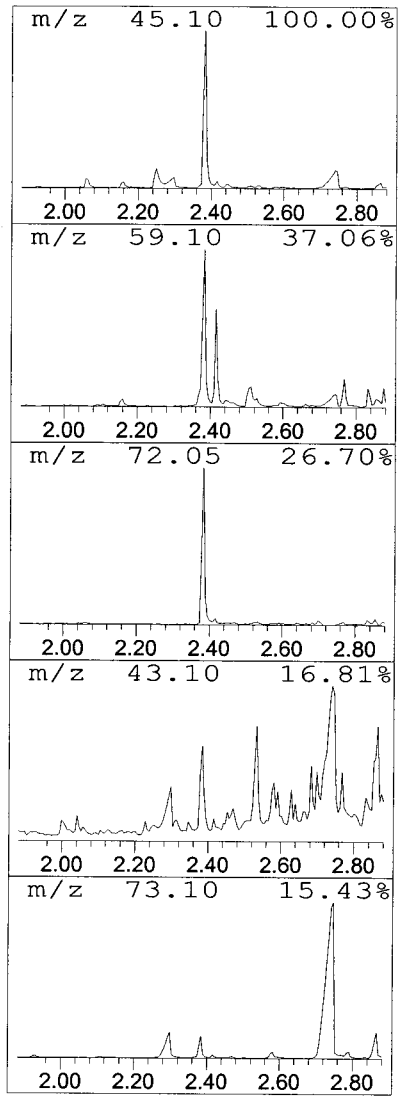
Peak Number 3 Unknown SV Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.38	22.49 UG	882499	1,4-Dichlorobenzene-d4	2.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	90
2	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	90
3	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	90
4	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	78
5	Ethane, 1,1'-oxybis[2-ethoxy-]	162	C8H18O3	000112-36-7	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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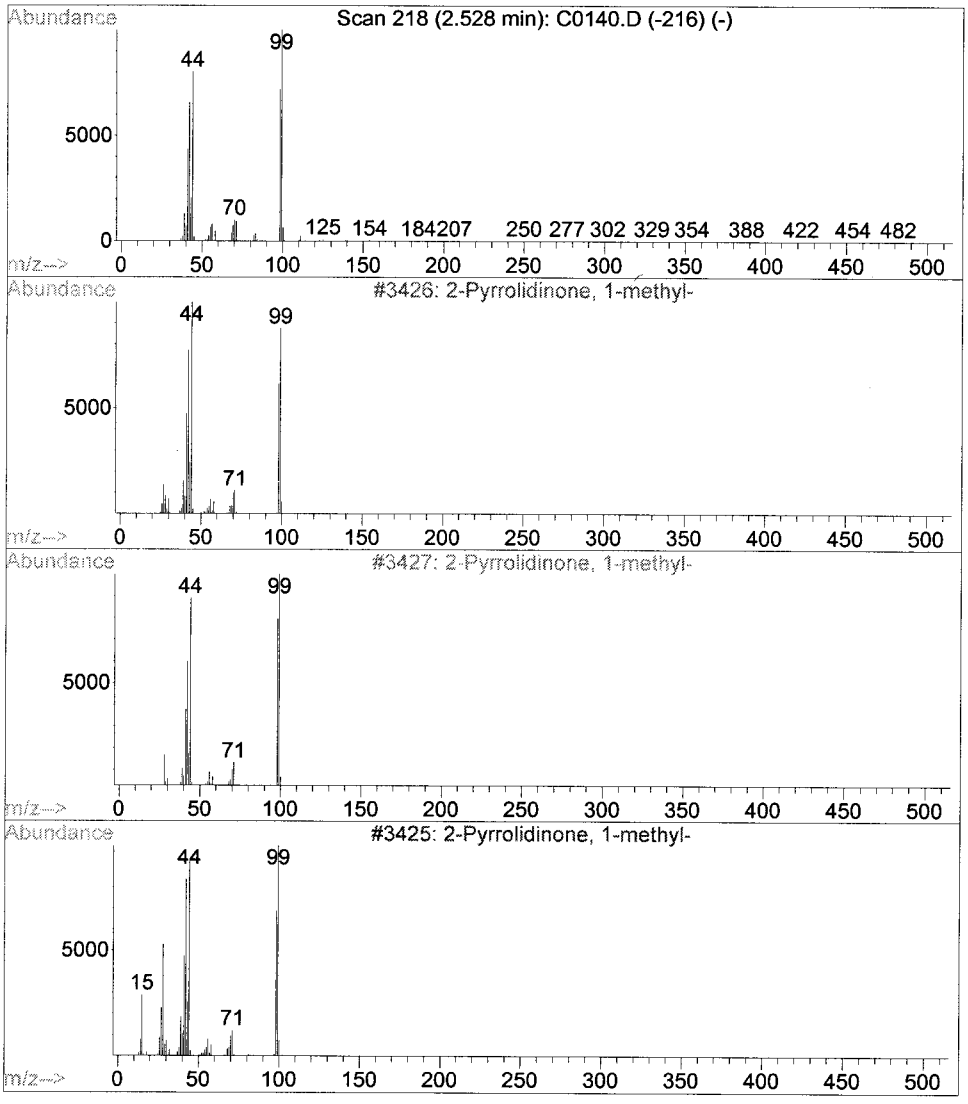
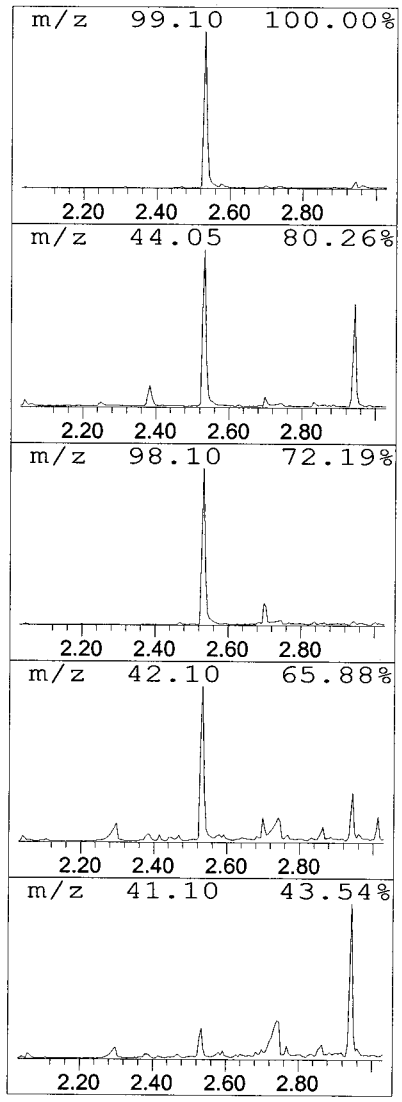
Peak Number 4 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.53	30.74 UG	1206530	1,4-Dichlorobenzene-d4	2.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pyrrolidinone, 1-methyl-	99	C5H9NO	000872-50-4	91
2	2-Pyrrolidinone, 1-methyl-	99	C5H9NO	000872-50-4	91
3	2-Pyrrolidinone, 1-methyl-	99	C5H9NO	000872-50-4	91
4	2-Pyrrolidinone, 1-methyl-	99	C5H9NO	000872-50-4	83
5	4-(Methylamino)butyric acid	117	C5H11NO2	001119-48-8	56





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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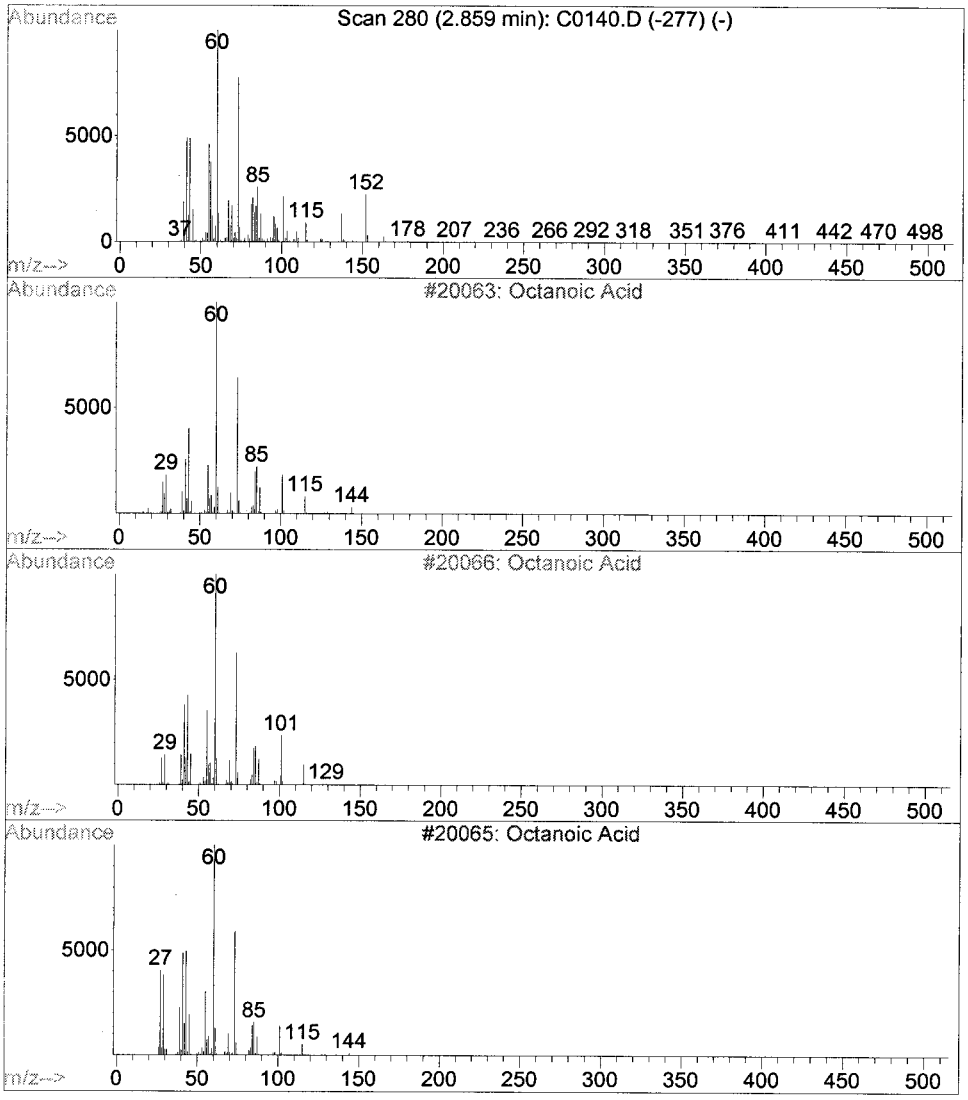
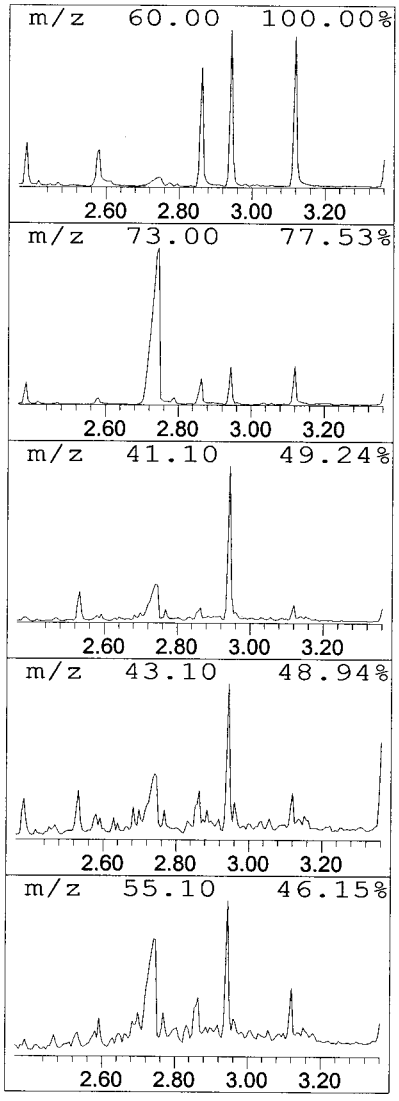
Peak Number 5 Unknown SV Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.86	12.75 UG	692990	Naphthalene-d8	3.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octanoic Acid	144	C8H16O2	000124-07-2	90
2	Octanoic Acid	144	C8H16O2	000124-07-2	87
3	Octanoic Acid	144	C8H16O2	000124-07-2	68
4	Hexanoic acid	116	C6H12O2	000142-62-1	60
5	n-Decanoic acid	172	C10H20O2	000334-48-5	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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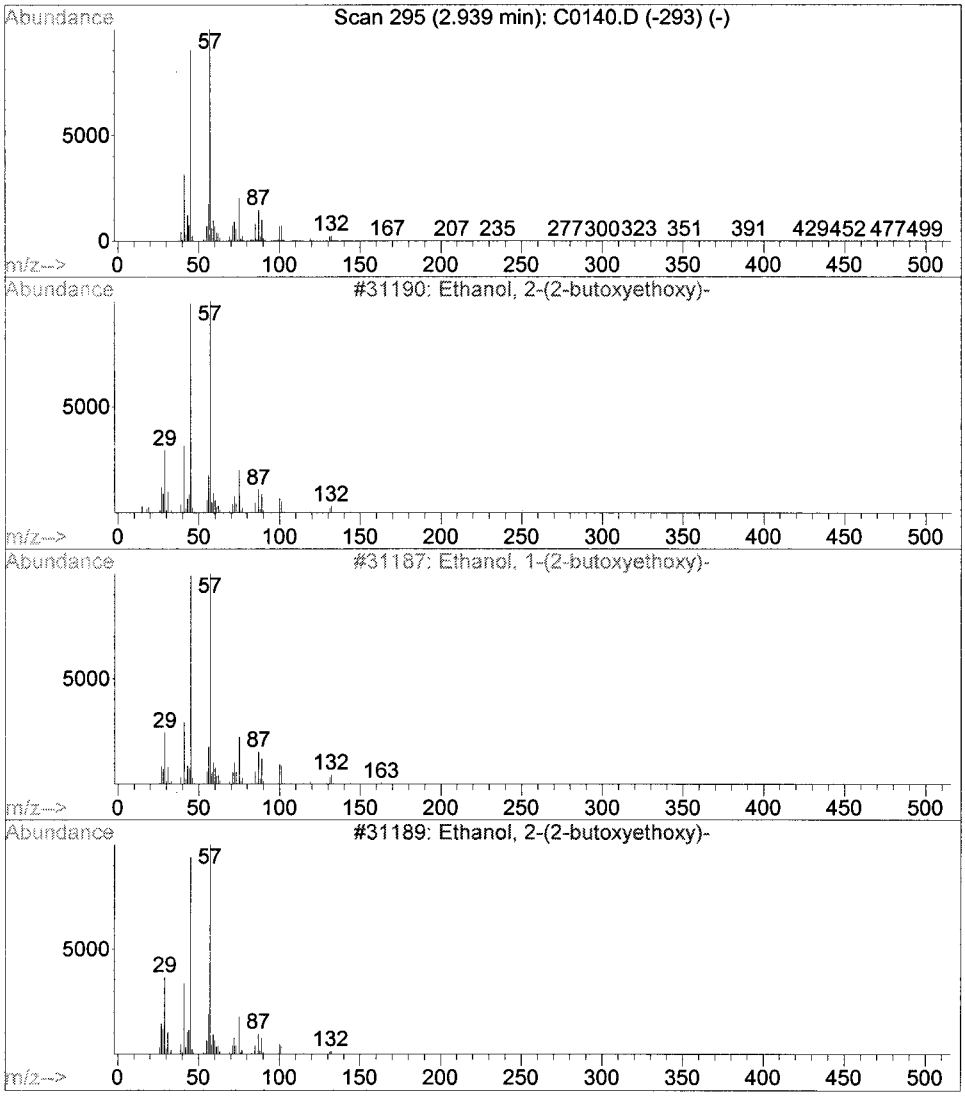
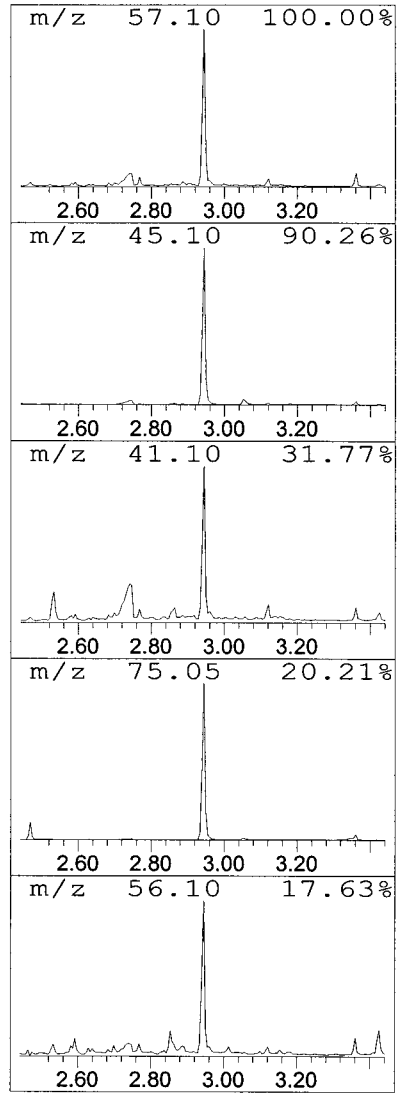
Peak Number 6 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.94	116.38 UG	6325650	Naphthalene-d8	3.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-(2-butoxyethoxy)-	162	C8H18O3	000112-34-5	90
2	Ethanol, 1-(2-butoxyethoxy)-	162	C8H18O3	054446-78-5	90
3	Ethanol, 2-(2-butoxyethoxy)-	162	C8H18O3	000112-34-5	83
4	Ethanol, 2-(2-butoxyethoxy)-	162	C8H18O3	000112-34-5	83
5	Ethanol, 2-(2-butoxyethoxy)-	162	C8H18O3	000112-34-5	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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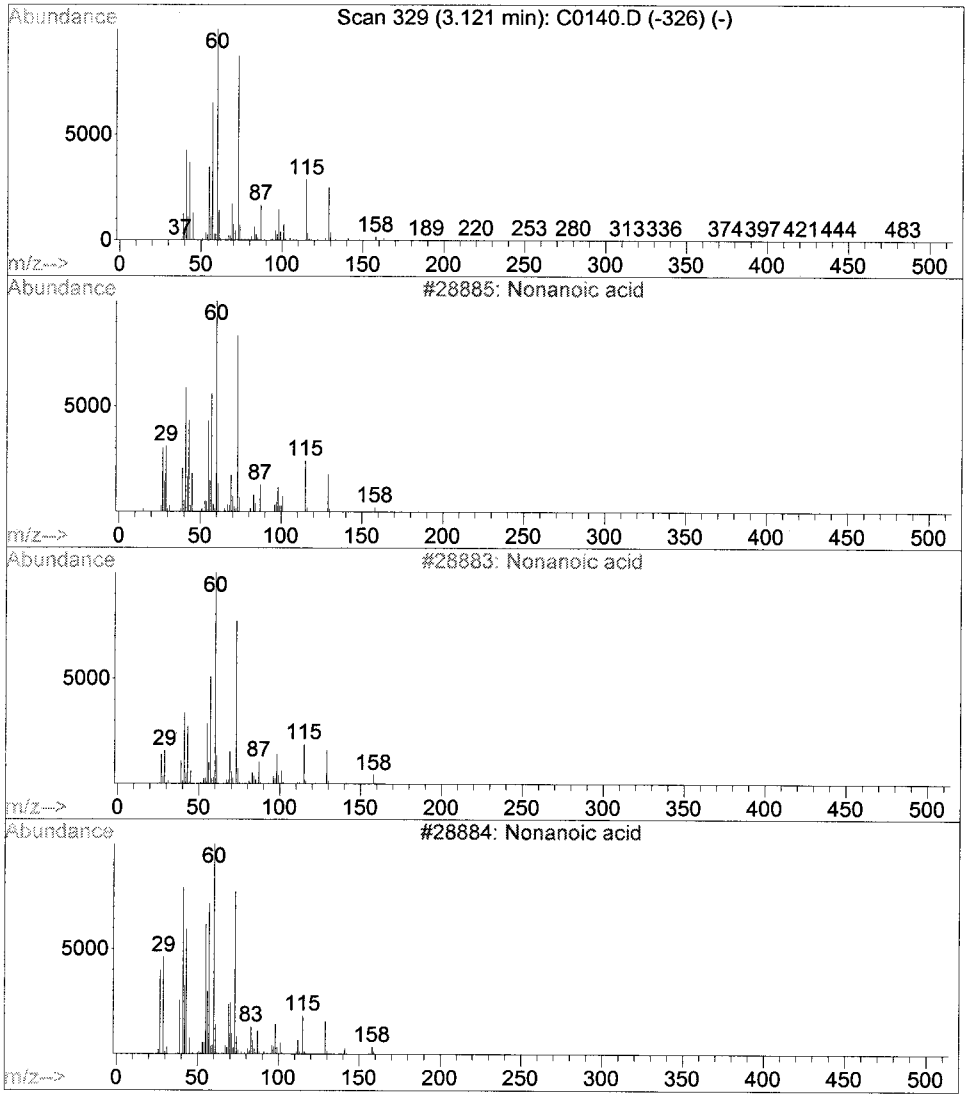
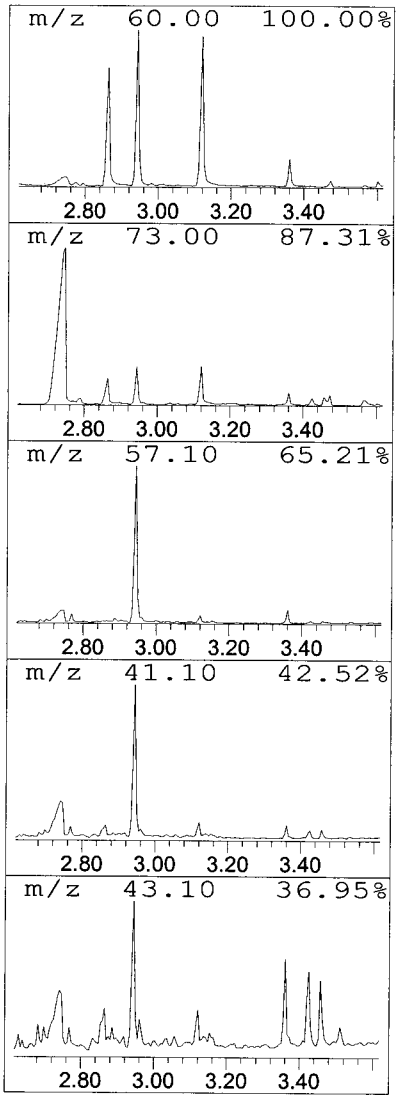
Peak Number 7 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.12	12.61 UG	685622	Naphthalene-d8	3.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanoic acid	158	C9H18O2	000112-05-0	87
2	Nonanoic acid	158	C9H18O2	000112-05-0	59
3	Nonanoic acid	158	C9H18O2	000112-05-0	50
4	Hexanoic acid	116	C6H12O2	000142-62-1	47
5	Pentanoic acid	102	C5H10O2	000109-52-4	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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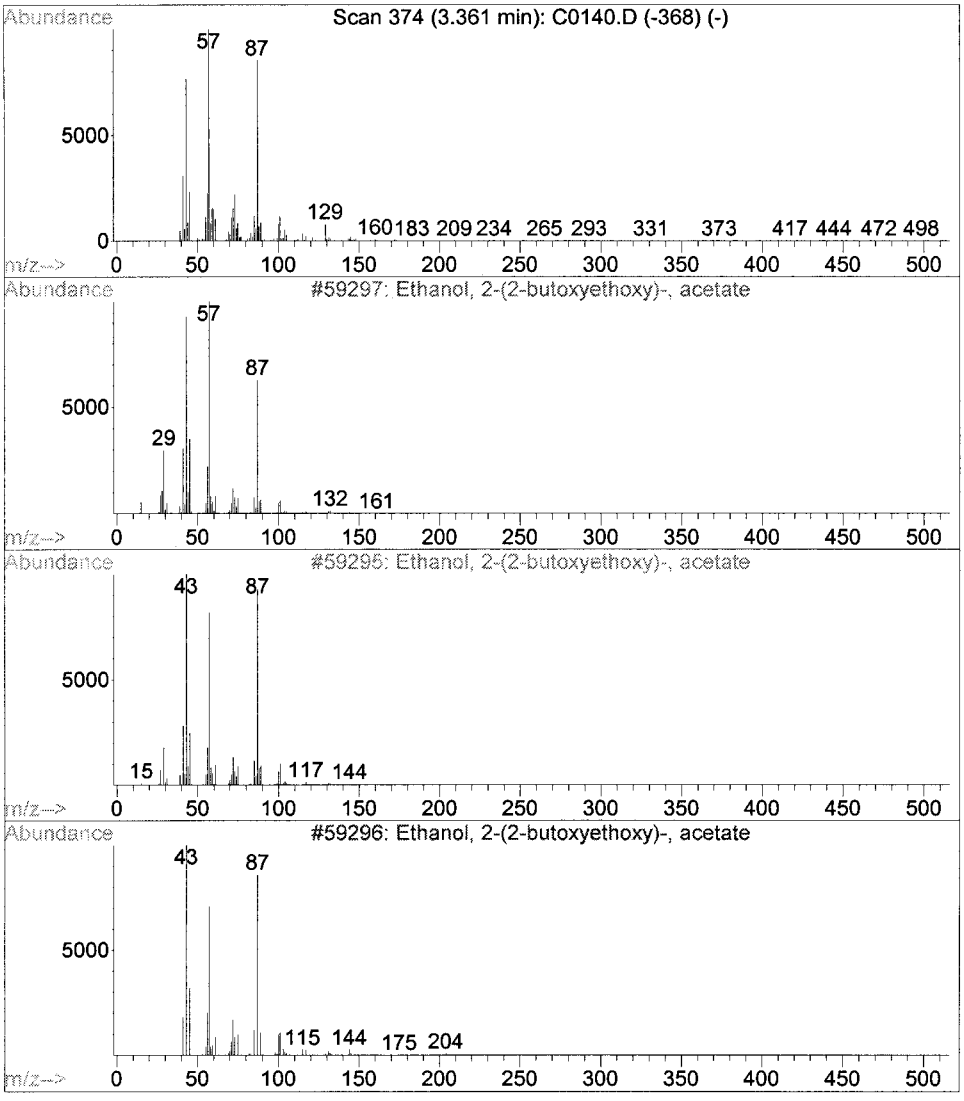
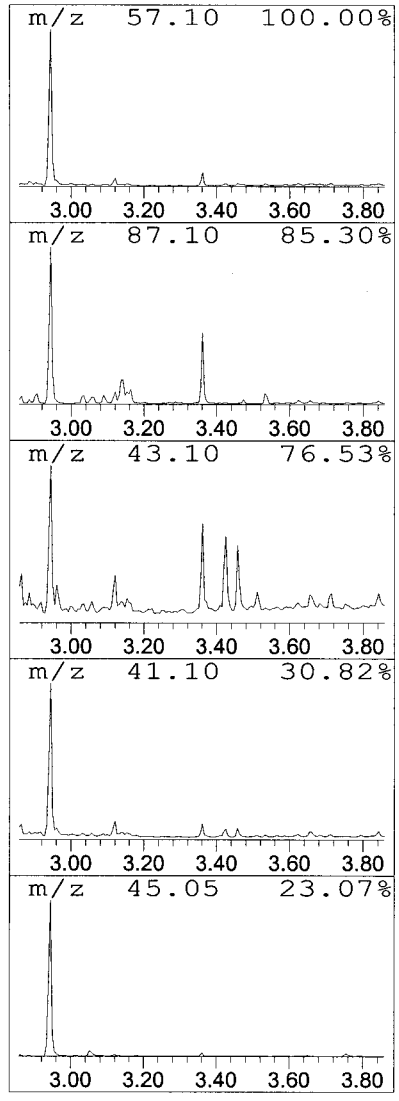
Peak Number 8 Unknown SV Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.36	18.87 UG	1025480	Naphthalene-d8	3.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-(2-butoxyethoxy)-, ac...	204	C10H20O4	000124-17-4	72
2	Ethanol, 2-(2-butoxyethoxy)-, ac...	204	C10H20O4	000124-17-4	64
3	Ethanol, 2-(2-butoxyethoxy)-, ac...	204	C10H20O4	000124-17-4	64
4	2-O-Methyl-D-mannopyranosa	194	C7H14O6	036864-61-6	47
5	1,2-Butanediol, 3,3-dimethyl-	118	C6H14O2	059562-82-2	45





Library Search Compound Report

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Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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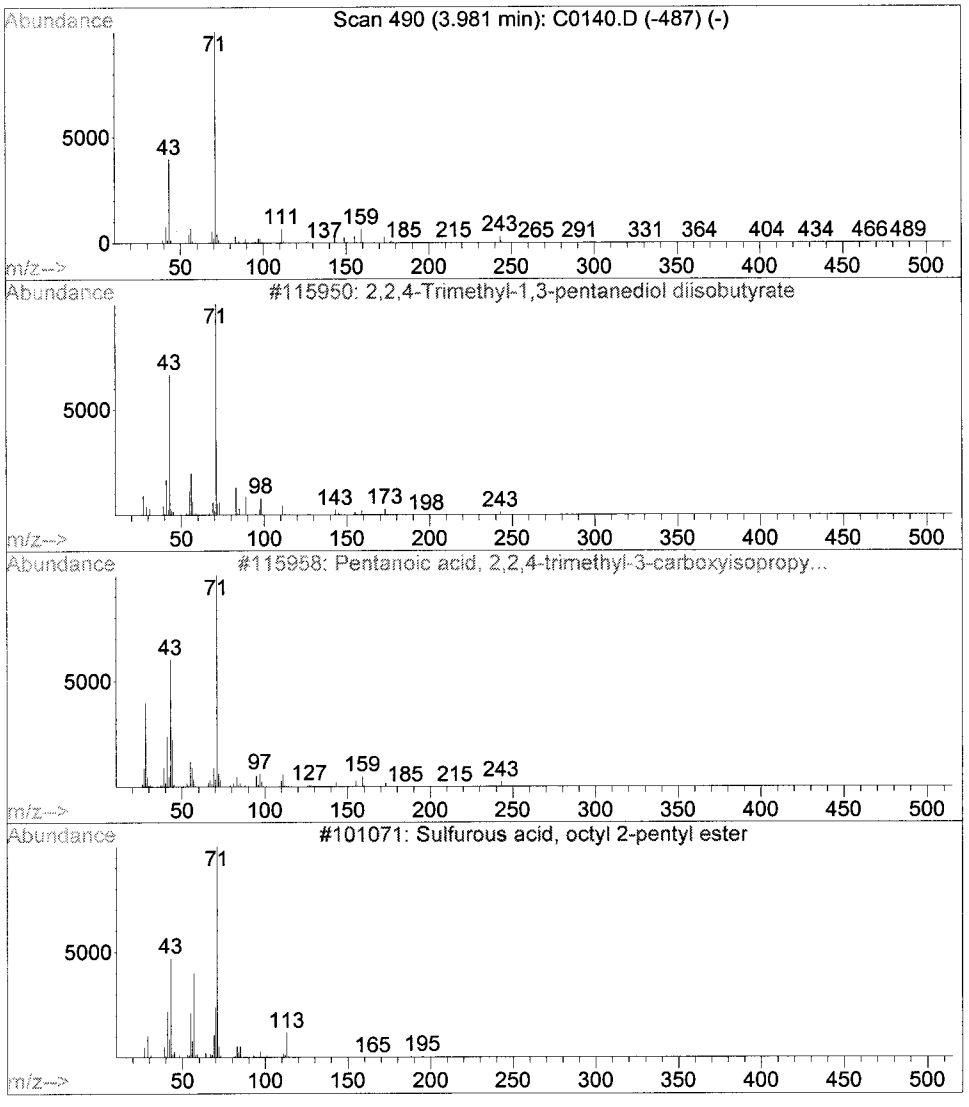
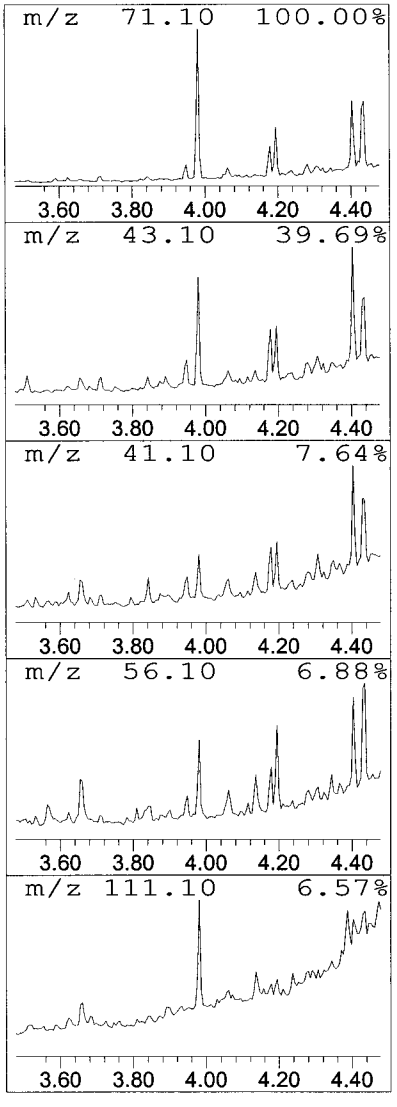
Peak Number 9 Unknown SV Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.98	14.15 UG	720334	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,2,4-Trimethyl-1,3-pentanediol ...	286	C16H30O4	006846-50-0	56
2	Pentanoic acid, 2,2,4-trimethyl-...	286	C16H30O4	1000140-77-5	43
3	Sulfurous acid, octyl 2-pentyl e...	264	C13H28O3S	1000309-15-7	39
4	Butyric acid, thio-, S-decyl ester	244	C14H28OS	002432-55-5	39
5	Oxalic acid, decyl neopentyl ester	300	C17H32O4	1000309-73-4	39





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

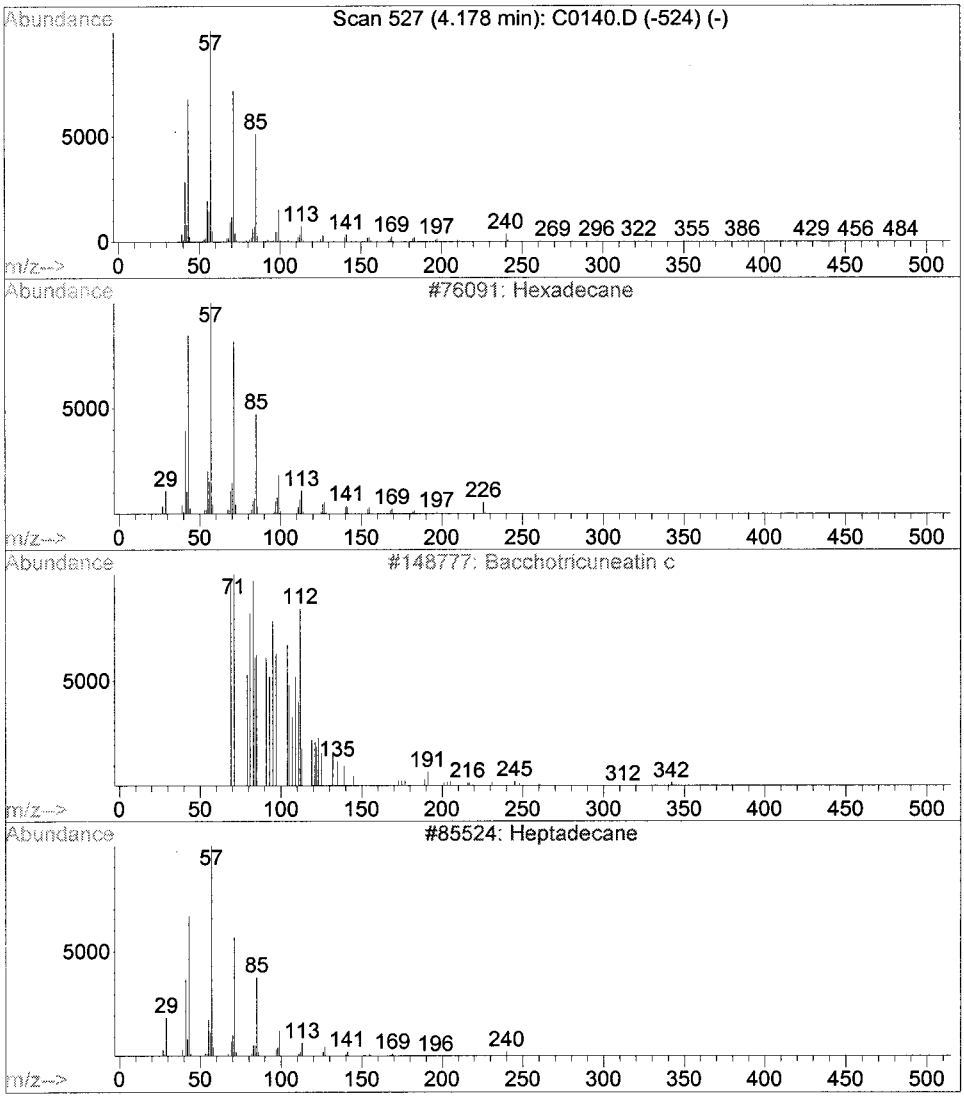
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

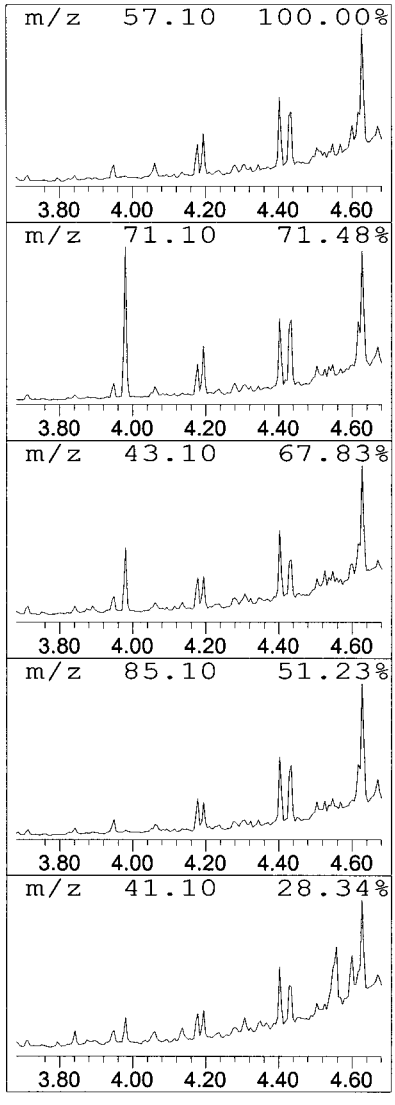
****

Peak Number 10 Unknown Hydrocarbon Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.18	9.68 UG	492743	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	96
2	Bacchotricuneatin c	342	C20H22O5	066563-30-2	96
3	Heptadecane	240	C17H36	000629-78-7	95
4	Heptadecane	240	C17H36	000629-78-7	94
5	Heptadecane	240	C17H36	000629-78-7	93





E13-09196 0193

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

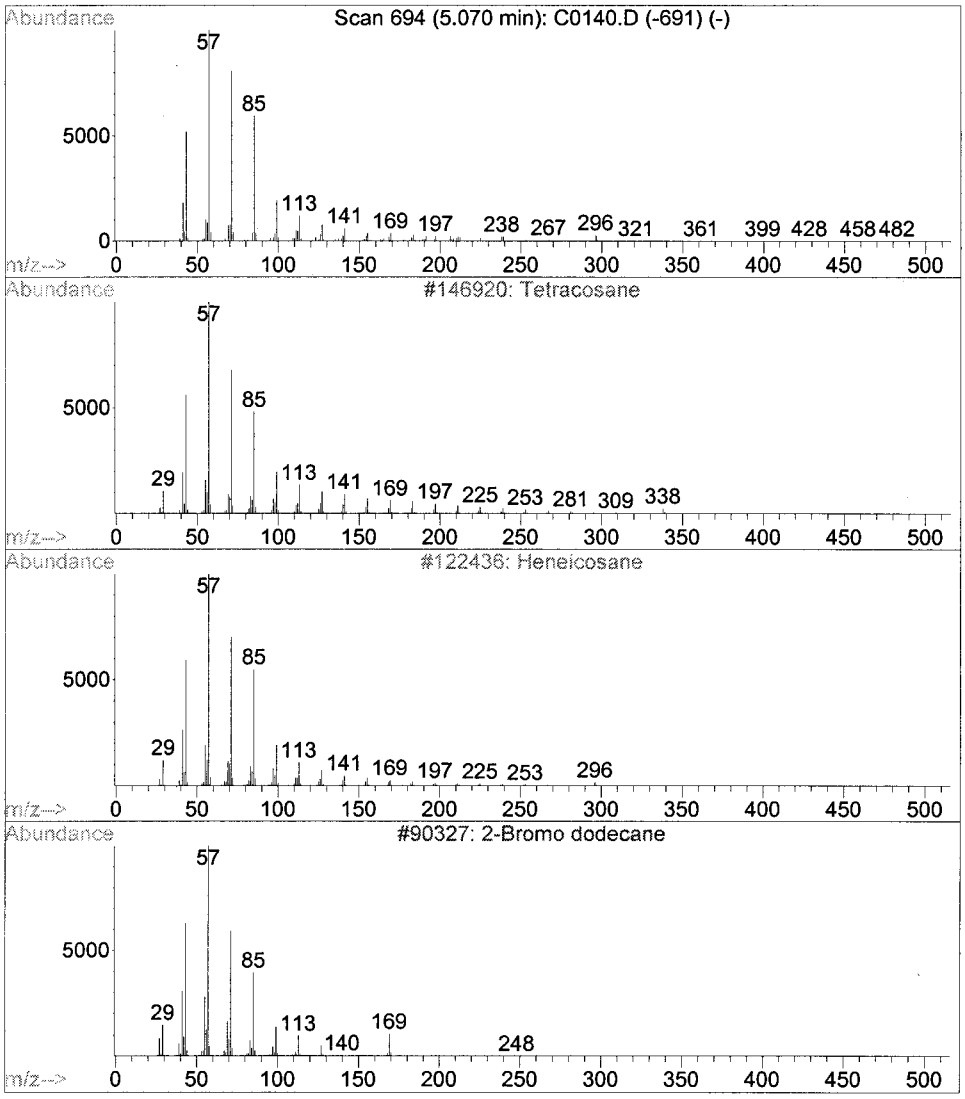
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

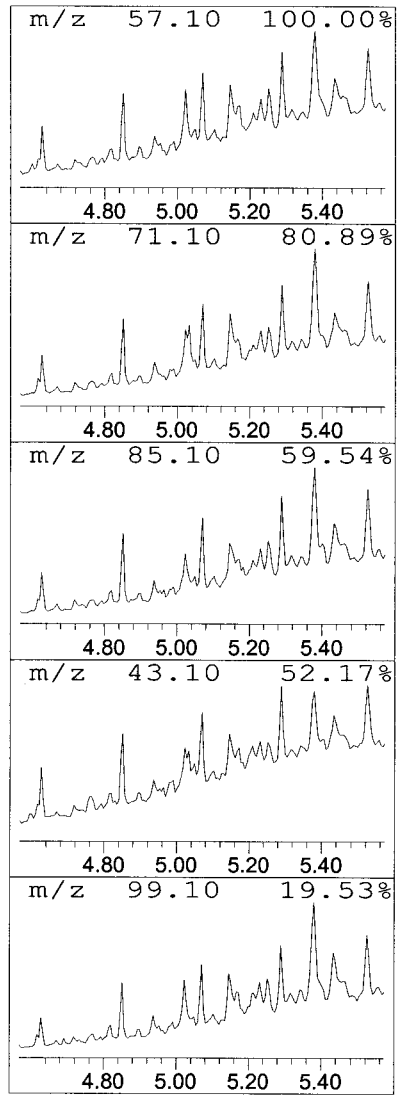
****

Peak Number 11 Unknown Hydrocarbon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.07	8.68 UG	3718800	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	91
2	Heneicosane	296	C21H44	000629-94-7	91
3	2-Bromo dodecane	248	C12H25Br	013187-99-0	90
4	Pentadecane	212	C15H32	000629-62-9	90
5	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44	054833-48-6	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

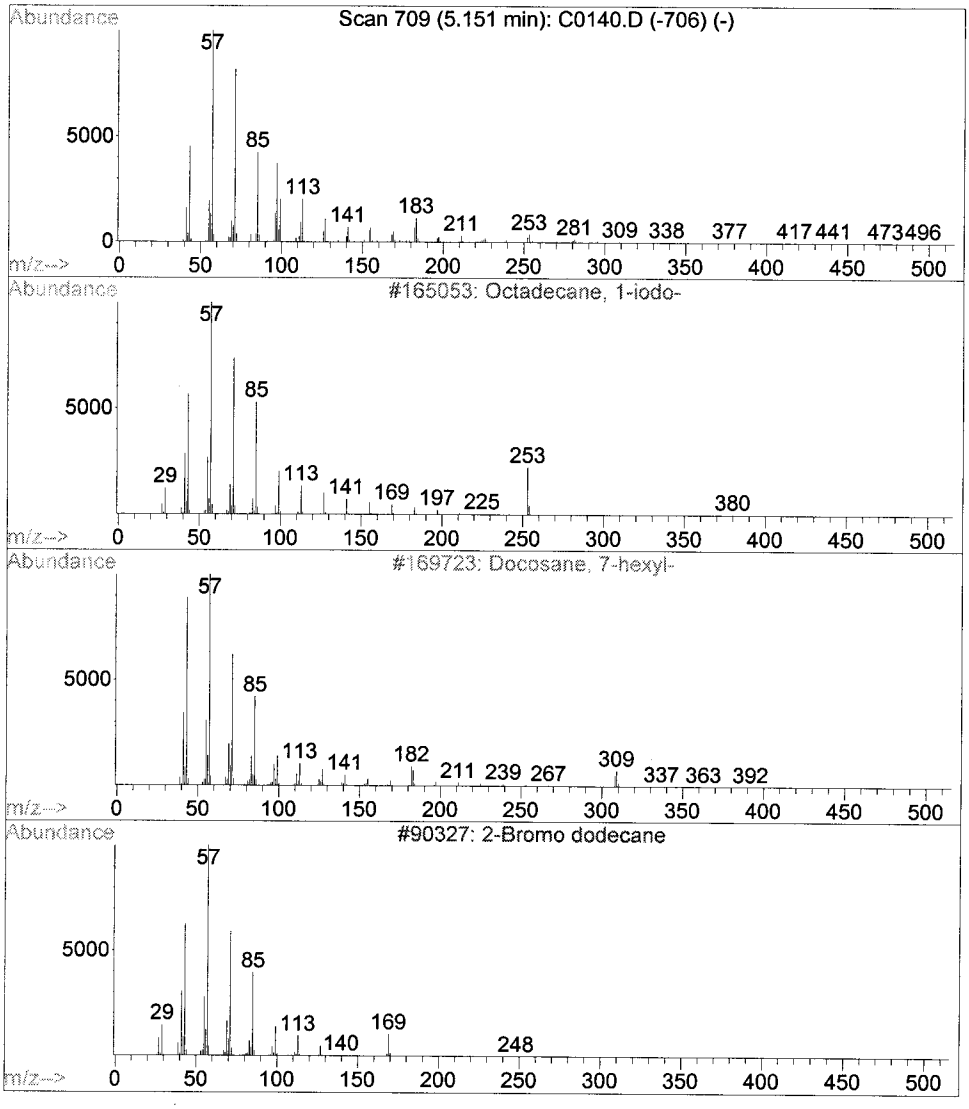
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

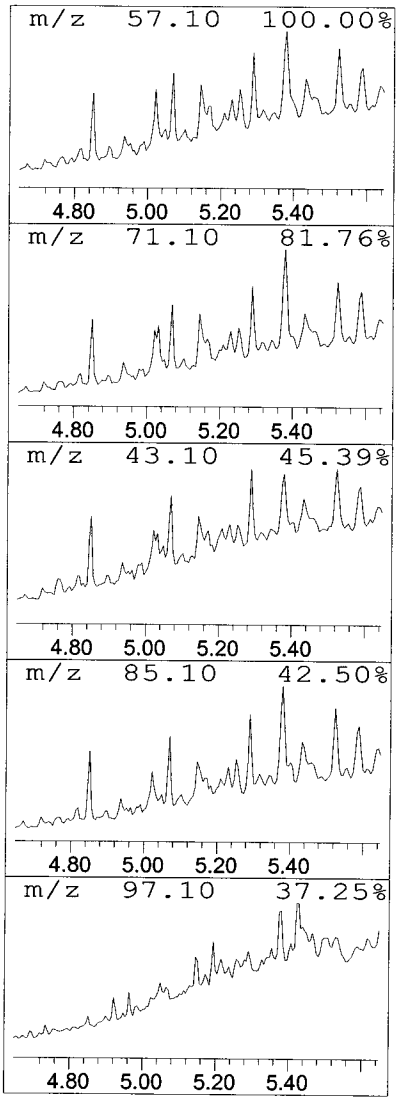
****

Peak Number 12 Unknown Hydrocarbon Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.15	8.33 UG	3569080	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane, 1-iodo-	380	C18H37I	000629-93-6	78
2	Docosane, 7-hexyl-	394	C28H58	055373-86-9	74
3	2-Bromo dodecane	248	C12H25Br	013187-99-0	68
4	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	64
5	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	64





E13-09196 0195

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

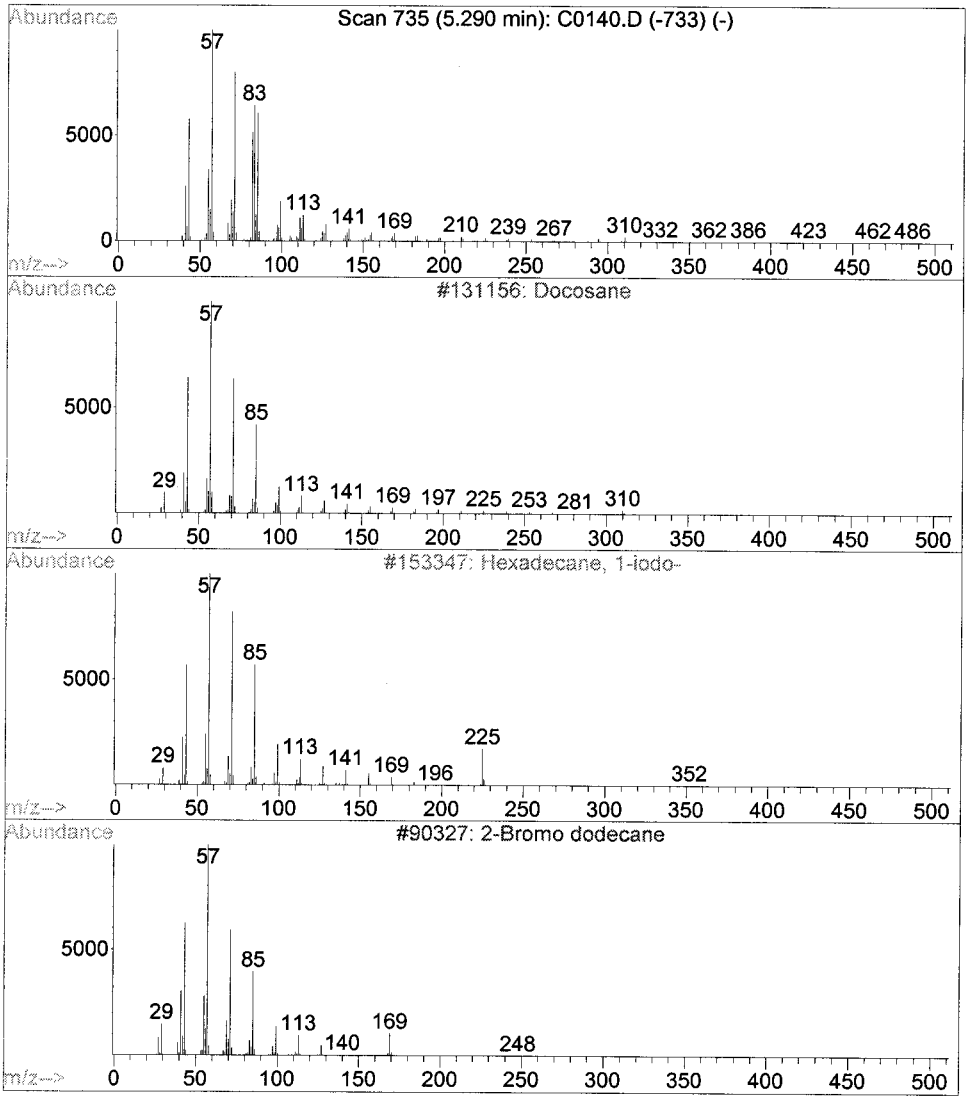
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

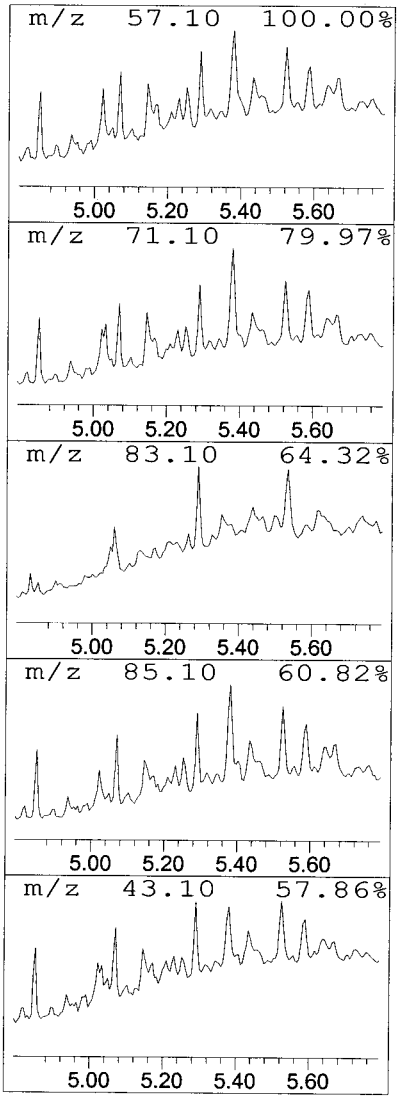
****

Peak Number 13 Unknown Hydrocarbon Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.29	10.10 UG	4327280	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Docosane	310	C22H46	000629-97-0	90
2	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	90
3	2-Bromo dodecane	248	C12H25Br	013187-99-0	78
4	Tridecane, 7-hexyl-	268	C19H40	007225-66-3	70
5	Octadecane	254	C18H38	000593-45-3	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

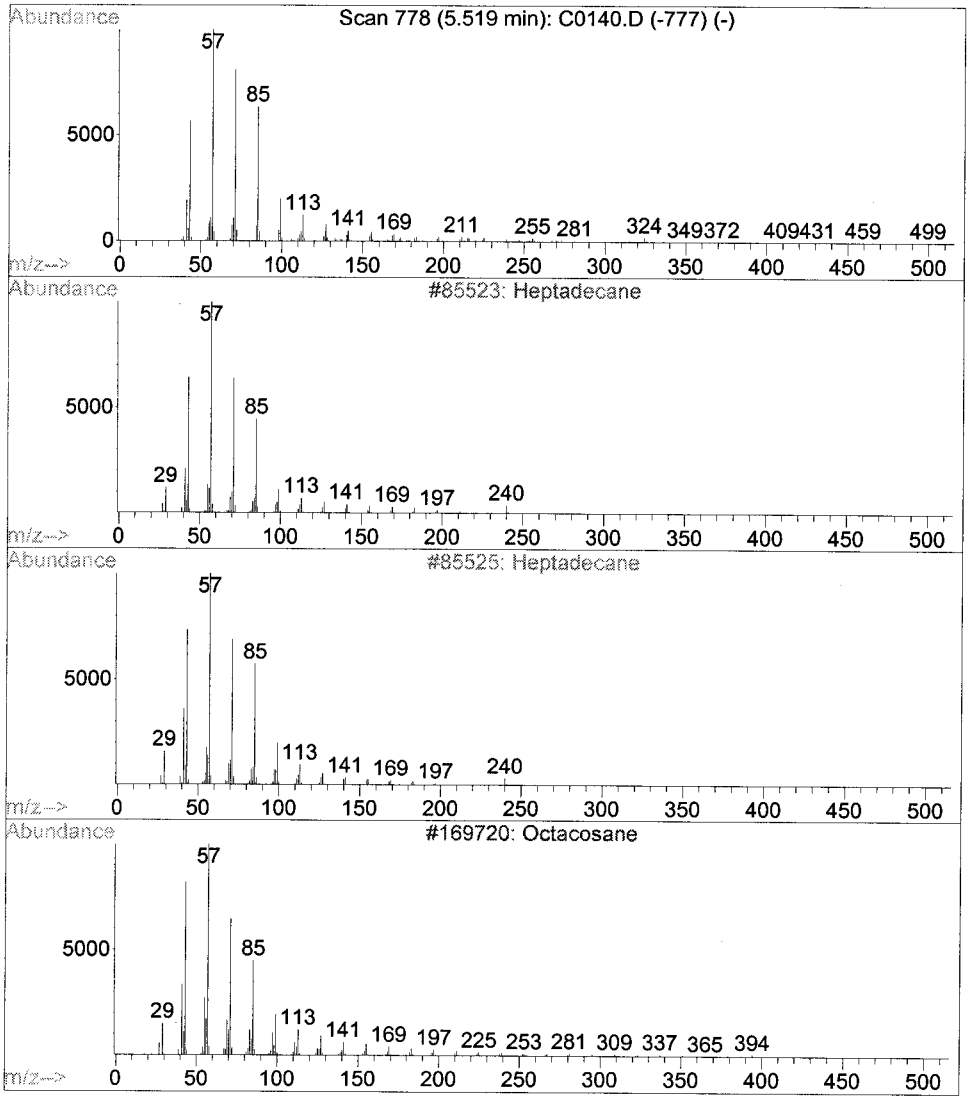
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

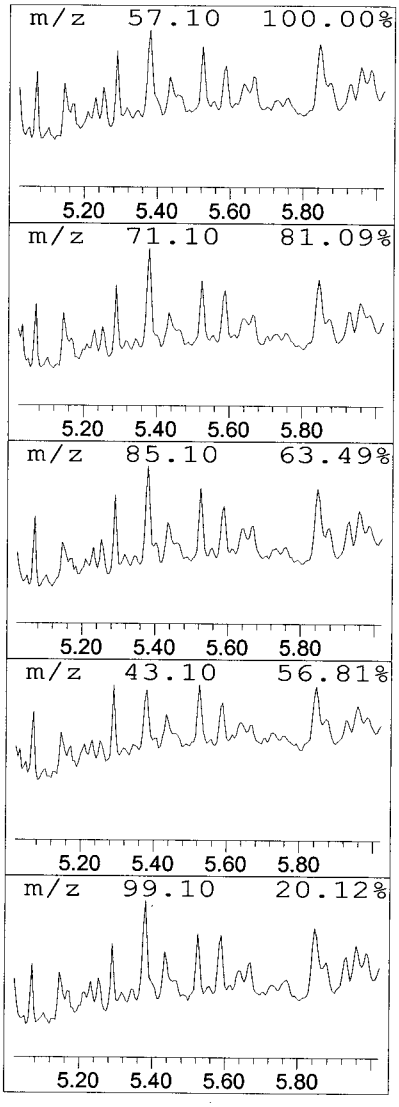
****

Peak Number 14 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.52	38.27 UG	6637330	Chrysene-d12	6.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane	240	C17H36	000629-78-7	94
2	Heptadecane	240	C17H36	000629-78-7	93
3	Octacosane	394	C28H58	000630-02-4	91
4	Heneicosane	296	C21H44	000629-94-7	91
5	Triacontane	422	C30H62	000638-68-6	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0140.D
Acq On : 20 Sep 2013 19:49
Operator : EDM
Sample : C-5_SPHI,E13-09196-005,Xs,15.04g,0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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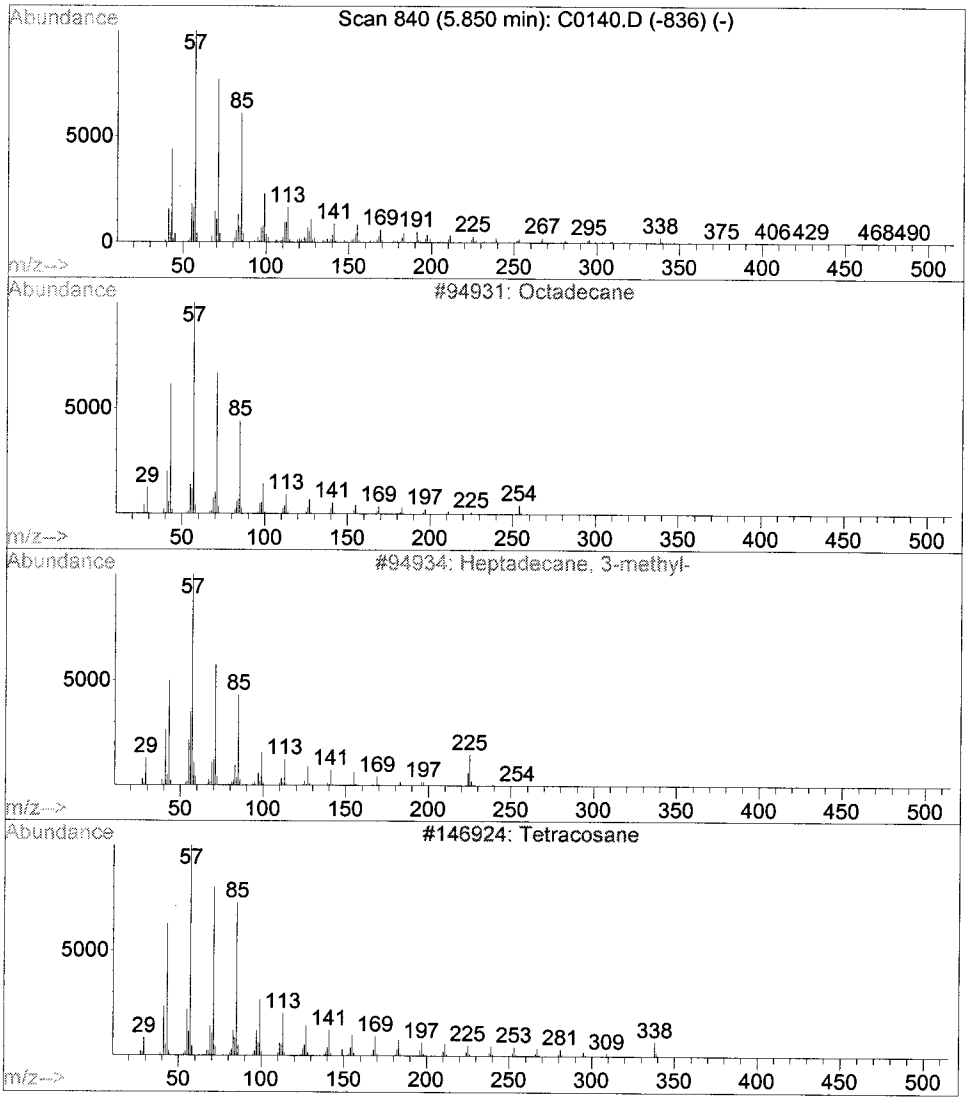
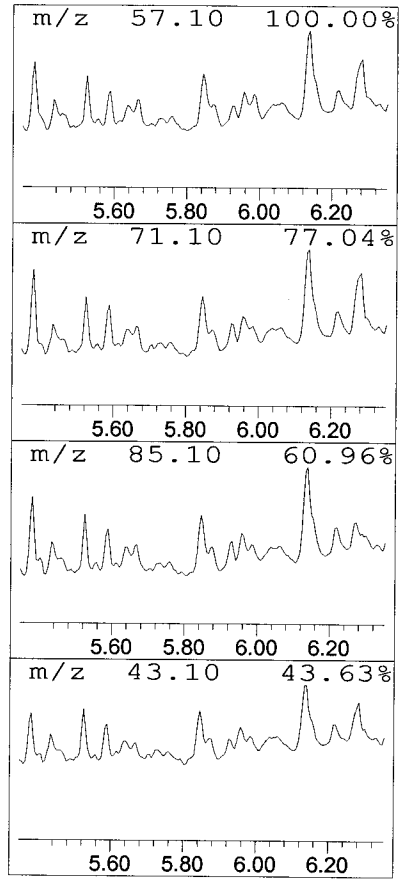
Peak Number 15 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.85	40.00 UG	6936790	Chrysene-d12	6.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane	254	C18H38	000593-45-3	97
2	Heptadecane, 3-methyl-	254	C18H38	006418-44-6	95
3	Tetracosane	338	C24H50	000646-31-1	94
4	Tetracosane	338	C24H50	000646-31-1	93
5	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	93





INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS130919-03
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0132.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.028
Pyridine	ND		0.033	0.033
Benzaldehyde	ND		0.033	0.020
Phenol	ND		0.033	0.020
Aniline	ND		0.033	0.026
Bis(2-chloroethyl) ether	ND		0.033	0.023
2-Chlorophenol	ND		0.033	0.020
1,3-Dichlorobenzene	ND		0.033	0.020
1,4-Dichlorobenzene	ND		0.033	0.020
Benzyl alcohol	ND		0.033	0.021
1,2-Dichlorobenzene	ND		0.033	0.020
2-Methylphenol	ND		0.033	0.027
Bis(2-chloroisopropyl) ether	ND		0.033	0.020
4-Methylphenol **	ND		0.033	0.020
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.020
3-Methylphenol	ND		0.033	0.020
Hexachloroethane	ND		0.033	0.020
Nitrobenzene	ND		0.033	0.033
Isophorone	ND		0.033	0.022
2-Nitrophenol	ND		0.033	0.025
2,4-Dimethylphenol	ND		0.033	0.026
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Benzoic acid	ND		0.033	0.020
2,4-Dimethylaniline	ND		0.033	0.025
2,4-Dichlorophenol	ND		0.033	0.031
1,2,4-Trichlorobenzene	ND		0.033	0.020
Naphthalene	ND		0.033	0.020
4-Chloroaniline	ND		0.033	0.031
Hexachlorobutadiene	ND		0.033	0.020
Caprolactam	ND		0.033	0.020
4-Chloro-3-methylphenol	ND		0.033	0.031
2-Methylnaphthalene	ND		0.033	0.028
Hexachlorocyclopentadiene	ND		0.033	0.022
2,4,6-Trichlorophenol	ND		0.033	0.020
2,4,5-Trichlorophenol	ND		0.033	0.020
1,1'-Biphenyl	ND		0.033	0.020
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.020

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS130919-03
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0132.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.020
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.028
Acenaphthene	ND		0.033	0.027
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.025
2,4-Dinitrotoluene	ND		0.033	0.022
Dibenzofuran	ND		0.033	0.020
Diethyl phthalate	ND		0.033	0.025
Fluorene	ND		0.033	0.020
4-Chlorophenyl phenyl ether	ND		0.033	0.020
4-Nitroaniline	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.020
2,3,4,6-Tetrachlorophenol	ND		0.033	0.031
4,6-Dinitro-2-methylphenol	ND		0.033	0.026
N-Nitrosodiphenylamine	ND		0.033	0.020
1,2-Diphenylhydrazine	ND		0.033	0.026
4-Bromophenyl phenyl ether	ND		0.033	0.020
Hexachlorobenzene	ND		0.033	0.027
Atrazine	ND		0.033	0.023
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.022
Anthracene	ND		0.033	0.033
Carbazole	ND		0.033	0.020
Di-n-butyl phthalate	ND		0.033	0.030
Fluoranthene	ND		0.033	0.020
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.025
3,3'-Dimethylbenzidine	ND		0.033	0.020
Butyl benzyl phthalate	ND		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	ND		0.033	0.032
Chrysene	ND		0.033	0.023
Bis(2-ethylhexyl) phthalate	ND		0.033	0.020
Di-n-octyl phthalate	ND		0.033	0.030
Benzo[b]fluoranthene	ND		0.033	0.020
Benzo[k]fluoranthene	ND		0.033	0.031
Benzo[a]pyrene	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	ND		0.033	0.022
Dibenz[a,h]anthracene	ND		0.033	0.024
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (81): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130919-03
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0132.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0132.D
Acq On : 20 Sep 2013 17:39
Operator : EDM
Sample : .,BLKS130919-03,S,15.00g,0,0.5
Misc : 130919-03,09/19/13,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 20 18:00:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.46	152	199214	40.00	UG	-0.01
23) Naphthalene-d8	3.01	136	856700	40.00	UG	-0.02
43) Acenaphthene-d10	3.82	164	540546	40.00	UG	-0.04
66) Phenanthrene-d10	4.58	188	868530	40.00	UG	-0.07
82) Chrysene-d12	6.34	240	579706	40.00	UG	-0.10
92) Perylene-d12	7.69	264	266047	40.00	UG	-0.09
System Monitoring Compounds						
4) 2-Fluorophenol	1.95	112	363006	52.35	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 52.35%			
6) Phenol-d5	2.29	99	461618	56.33	UG	-0.01
Spiked Amount 100.000	Range 25 - 108		Recovery = 56.33%			
24) Nitrobenzene-d5	2.70	82	275792	39.78	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 79.56%			
47) 2-Fluorobiphenyl	3.48	172	664146	36.34	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 72.68%			
70) 2,4,6-Tribromophenol	4.22	330	136048	48.99	UG	-0.06
Spiked Amount 100.000	Range 37 - 115		Recovery = 48.99%			
84) Terphenyl-d14	5.46	244	721545	46.96	UG	-0.14
Spiked Amount 50.000	Range 15 - 122		Recovery = 93.92%			

Target Compounds	Qvalue

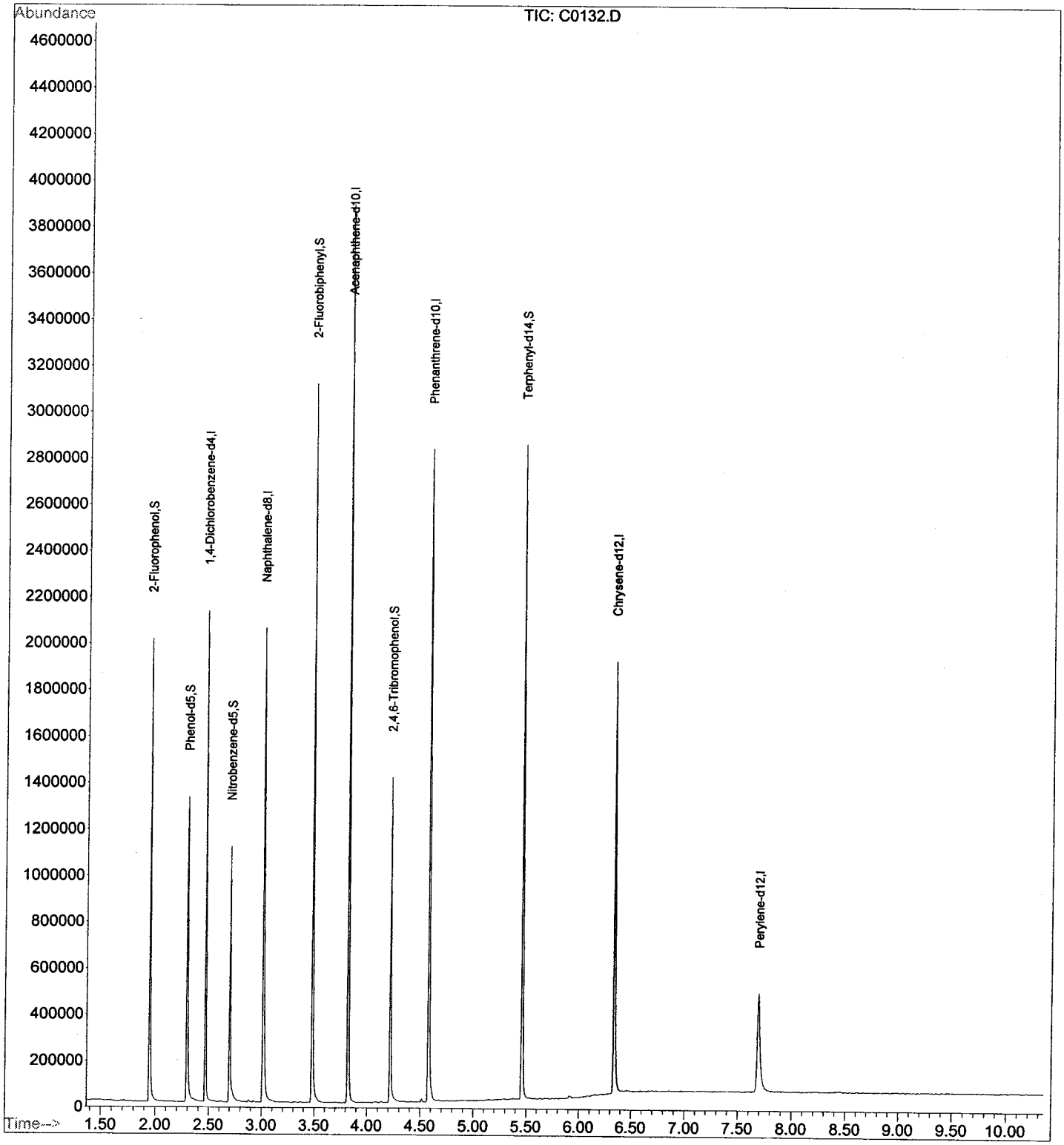
(#) = qualifier out of range (m) = manual integration (+) = signals summed

E13-09196 0202

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0132.D
Acq On : 20 Sep 2013 17:39
Operator : EDM
Sample : .,BLKS130919-03,S,15.00g,0,0.5
Misc : 130919-03,09/19/13,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 20 18:00:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



E13-09196 0203

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0132.D
Acq On : 20 Sep 2013 17:39
Operator : EDM
Sample : .,BLKS130919-03,S,15.00g,0,0.5
Misc : 130919-03,09/19/13,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2213.M Fri Sep 20 18:00:42 2013 RPT1

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS130923-11	SOIL	66		80		81		94	
C1/S1	09290-001	SOIL	52		56		65		79	
C2/S2	09290-002	SOIL	53		56		65		72	
C-1_WAREHO	09196-001	SOLID	38		52		50		64	
C-2_LOAD_D	09196-002	SOLID	23	M	37		30		84	
C-3_BLD_2	09196-003	SOLID	30		49		36		69	
C-4_IMP._M	09196-004	SOLID	30		49		35		59	
AOC-7-2/11	09197-004	SOIL	34		47		39		61	
AOC-7-3/9.	09197-005	SOIL	30		49		33		49	
AOC-12-2/3	09197-009	SOIL	32		33		37		40	
VTS_D1	08883-001	SOIL	42		43		51		52	
PCB	09197-009MS	SOIL	42		39		50		48	
PCB	09197-009MSD	SOIL	43		41		52		49	
PCB	LCSS130923-11	SOIL	71		70		87		74	
C-5_SPHINX	09196-005	SOLID	33		45		41		71	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PCB LCS ACCURACY RECOVERY

Matrix spike Lab sample ID: LCSS130923-11

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	378.9	76	40 - 140
Aroclor-1260	500.0	0.0	375.5	75	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB MS/MSD ACCURACY RECOVERY

Matrix spike Lab sample ID: 09197-009

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC	#	QC LIMITS REC.
Aroclor-1016	500.0	0.0	244.2	49		40 - 140
Aroclor-1260	500.0	1011.0	549.8	-92	*	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	#	MSD % REC	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	242.8		49	0		50	40 - 140
Aroclor-1260	1011.0	727.8	*	-57	47		50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __2___ out of __4__ outside limits

PCB METHOD BLANK SUMMARY

Lab File ID: R4368.D

Instrument ID: GC-R

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 09:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
C1/S1	09290-001	09/24/2013	10:02
C2/S2	09290-002	09/24/2013	10:20
C-1_WAREHO	09196-001	09/24/2013	10:37
C-2_LOAD_D	09196-002	09/24/2013	10:58
C-3_BLD_2	09196-003	09/24/2013	11:16
C-4_IMP._M	09196-004	09/24/2013	11:33
AOC-7-2/11	09197-004	09/24/2013	13:00
AOC-7-3/9.	09197-005	09/24/2013	13:18
AOC-12-2/3	09197-009	09/24/2013	13:35
VTS_D1	08883-001	09/24/2013	13:53
PCB	09197-009MS	09/24/2013	14:10
PCB	09197-009MSD	09/24/2013	14:28
PCB	LCSS130923-11	09/24/2013	14:45
C-5_SPHINX	09196-005	09/24/2013	15:03

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.21	3.21	3.21	3.21	3.20	3.21	3.14	3.28
Aroclor-1016 {2}	4.04	4.04	4.04	4.04	4.03	4.04	3.97	4.11
Aroclor-1016 {3}	4.59	4.59	4.59	4.59	4.59	4.59	4.52	4.66
Aroclor-1016 {4}	5.10	5.10	5.10	5.10	5.10	5.10	5.03	5.17
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.12				2.05	2.19
Aroclor-1221 {2}			3.01				2.94	3.08
Aroclor-1221 {3}			3.13				3.06	3.20
Aroclor-1221 {4}			3.21				3.14	3.28
Aroclor-1221 {5}			3.80				3.73	3.87
Aroclor-1232			3.21				3.14	3.28
Aroclor-1232 {2}			4.04				3.97	4.11
Aroclor-1232 {3}			4.70				4.63	4.77
Aroclor-1232 {4}			5.30				5.23	5.37
Aroclor-1232 {5}			5.49				5.42	5.56
Aroclor-1242			4.04				3.97	4.11
Aroclor-1242 {2}			4.98				4.91	5.05
Aroclor-1242 {3}			5.30				5.23	5.37
Aroclor-1242 {4}			6.00				5.93	6.07
Aroclor-1242 {5}			6.27				6.20	6.34
Aroclor-1248			4.44				4.36	4.52
Aroclor-1248 {2}			4.98				4.90	5.06
Aroclor-1248 {3}			5.30				5.22	5.38
Aroclor-1248 {4}			6.00				5.92	6.08
Aroclor-1248 {5}			6.27				6.19	6.35
Aroclor-1254			6.39				6.31	6.47
Aroclor-1254 {2}			6.83				6.75	6.91
Aroclor-1254 {3}			7.00				6.91	7.09
Aroclor-1254 {4}			7.45				7.36	7.54
Aroclor-1254 {5}			8.29				8.20	8.38
Aroclor-1260	8.29	8.29	8.29	8.29	8.29	8.29	7.39	9.19
Aroclor-1260 {2}	8.97	8.96	8.96	8.96	8.96	8.96	8.06	9.86
Aroclor-1260 {3}	9.45	9.45	9.44	9.44	9.44	9.45	8.55	10.35
Aroclor-1260 {4}	9.94	9.93	9.93	9.93	9.93	9.93	9.03	10.83
Aroclor-1260 {5}	11.00	11.00	11.00	10.99	10.99	11.00	10.10	11.90

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	243865	216790	199305	183366	184539	205573	12.32
Aroclor-1016 {2}	329663	293312	273907	254375	251534	280558	11.48
Aroclor-1016 {3}	421622	378312	356112	329359	325022	362086	10.95
Aroclor-1016 {4}	196004	176563	161796	145945	139733	164008	13.98
Aroclor-1016 {5}	322251	290331	282382	257409	252936	281062	9.96
Aroclor-1221			98455				
Aroclor-1221 {2}			147422				
Aroclor-1221 {3}			104493				
Aroclor-1221 {4}			357450				
Aroclor-1221 {5}			79152				
Aroclor-1232			248609				
Aroclor-1232 {2}			144312				
Aroclor-1232 {3}			125680				
Aroclor-1232 {4}			141484				
Aroclor-1232 {5}			176247				
Aroclor-1242			232340				
Aroclor-1242 {2}			149217				
Aroclor-1242 {3}			212227				
Aroclor-1242 {4}			308432				
Aroclor-1242 {5}			255832				
Aroclor-1248			550496				
Aroclor-1248 {2}			319120				
Aroclor-1248 {3}			418121				
Aroclor-1248 {4}			650924				
Aroclor-1248 {5}			480676				
Aroclor-1254			627382				
Aroclor-1254 {2}			399643				
Aroclor-1254 {3}			752699				
Aroclor-1254 {4}			788362				
Aroclor-1254 {5}			705322				
Aroclor-1260	757128	754434	788799	691182	715219	741352	5.17
Aroclor-1260 {2}	377531	353479	367477	314922	322854	347253	7.89
Aroclor-1260 {3}	833253	861623	929397	797453	840707	852487	5.73
Aroclor-1260 {4}	442035	422694	469045	403585	434405	434353	5.57
Aroclor-1260 {5}	232694	194352	209736	173881	171745	196482	13.01
					Average %RSD		9.61

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.38	3.38	3.38	3.38	3.39	3.38	3.31	3.45
Aroclor-1016 {2}	3.94	3.94	3.94	3.94	3.96	3.94	3.87	4.01
Aroclor-1016 {3}	4.66	4.66	4.66	4.66	4.67	4.66	4.59	4.73
Aroclor-1016 {4}	4.86	4.86	4.86	4.86	4.87	4.86	4.79	4.93
Aroclor-1016 {5}	5.03	5.03	5.03	5.03	5.04	5.03	4.96	5.10
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.08				3.01	3.15
Aroclor-1221 {3}			3.29				3.22	3.36
Aroclor-1221 {4}			3.38				3.31	3.45
Aroclor-1221 {5}			4.66				4.59	4.73
Aroclor-1232			3.38				3.31	3.45
Aroclor-1232 {2}			4.31				4.24	4.38
Aroclor-1232 {3}			4.86				4.79	4.93
Aroclor-1232 {4}			5.03				4.96	5.10
Aroclor-1232 {5}			5.61				5.54	5.68
Aroclor-1242			4.31				4.24	4.38
Aroclor-1242 {2}			5.03				4.96	5.10
Aroclor-1242 {3}			5.61				5.54	5.68
Aroclor-1242 {4}			5.76				5.69	5.83
Aroclor-1242 {5}			6.30				6.23	6.37
Aroclor-1248			4.66				4.58	4.74
Aroclor-1248 {2}			5.22				5.14	5.30
Aroclor-1248 {3}			5.61				5.53	5.69
Aroclor-1248 {4}			5.76				5.68	5.84
Aroclor-1248 {5}			6.11				6.03	6.19
Aroclor-1254			6.59				6.51	6.67
Aroclor-1254 {2}			7.17				7.09	7.25
Aroclor-1254 {3}			7.60				7.51	7.69
Aroclor-1254 {4}			7.78				7.69	7.87
Aroclor-1254 {5}			8.59				8.50	8.68
Aroclor-1260	7.35	7.35	7.35	7.35	7.36	7.35	6.45	8.25
Aroclor-1260 {2}	7.60	7.60	7.60	7.60	7.61	7.60	6.70	8.50
Aroclor-1260 {3}	9.18	9.18	9.18	9.18	9.19	9.18	8.28	10.08
Aroclor-1260 {4}	9.69	9.69	9.69	9.69	9.70	9.69	8.79	10.59
Aroclor-1260 {5}	10.28	10.28	10.28	10.27	10.28	10.28	9.38	11.18

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	362241	319133	272025	248097	250722	290444	16.94
Aroclor-1016 {2}	743962	638498	551705	509099	507402	590133	17.13
Aroclor-1016 {3}	1634305	1339093	1240491	1157160	1153188	1304848	15.26
Aroclor-1016 {4}	640757	532369	529369	479376	469296	530233	12.83
Aroclor-1016 {5}	511215	424107	401382	365779	361833	412863	14.71
Aroclor-1221			133932				
Aroclor-1221 {2}			198787				
Aroclor-1221 {3}			133461				
Aroclor-1221 {4}			484806				
Aroclor-1221 {5}			92989				
Aroclor-1232			337701				
Aroclor-1232 {2}			127755				
Aroclor-1232 {3}			282764				
Aroclor-1232 {4}			212621				
Aroclor-1232 {5}			294142				
Aroclor-1242			199335				
Aroclor-1242 {2}			339120				
Aroclor-1242 {3}			443826				
Aroclor-1242 {4}			366761				
Aroclor-1242 {5}			720540				
Aroclor-1248			766481				
Aroclor-1248 {2}			1140084				
Aroclor-1248 {3}			814777				
Aroclor-1248 {4}			687633				
Aroclor-1248 {5}			406423				
Aroclor-1254			915839				
Aroclor-1254 {2}			721245				
Aroclor-1254 {3}			474223				
Aroclor-1254 {4}			703201				
Aroclor-1254 {5}			1013959				
Aroclor-1260	585399	517611	452177	396373	395981	469508	17.43
Aroclor-1260 {2}	883662	775223	680288	591735	587886	703758	17.97
Aroclor-1260 {3}	674621	625967	589609	507374	529398	585394	11.73
Aroclor-1260 {4}	1367534	1326755	1291089	1100209	1160368	1249191	9.12
Aroclor-1260 {5}	929561	946699	919373	778085	827578	880259	8.35
					Average %RSD		14.15

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013

Instrument ID: GC-R

GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.66				8.54	8.78
Aroclor-1262 {2}			9.45				9.33	9.57
Aroclor-1262 {3}			10.08				9.96	10.20
Aroclor-1262 {4}			10.16				10.04	10.28
Aroclor-1262 {5}			11.00				10.88	11.12
Aroclor-1268			10.08				9.96	10.20
Aroclor-1268 {2}			10.16				10.04	10.28
Aroclor-1268 {3}			10.63				10.51	10.75
Aroclor-1268 {4}			10.76				10.64	10.88
Aroclor-1268 {5}			11.60				11.48	11.72

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.18				9.06	9.30
Aroclor-1262 {2}			9.69				9.57	9.81
Aroclor-1262 {3}			10.18				10.06	10.30
Aroclor-1262 {4}			10.27				10.15	10.39
Aroclor-1262 {5}			10.87				10.75	10.99
Aroclor-1268			10.18				10.06	10.30
Aroclor-1268 {2}			10.26				10.14	10.38
Aroclor-1268 {3}			10.51				10.39	10.63
Aroclor-1268 {4}			10.65				10.53	10.77
Aroclor-1268 {5}			11.73				11.61	11.85

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			326215				
Aroclor-1262 {2}			1281764				
Aroclor-1262 {3}			491930				
Aroclor-1262 {4}			563512				
Aroclor-1262 {5}			432239				
Aroclor-1268			1292652				
Aroclor-1268 {2}			1452313				
Aroclor-1268 {3}			1123481				
Aroclor-1268 {4}			297485				
Aroclor-1268 {5}			3490031				

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			817810				
Aroclor-1262 {2}			1844146				
Aroclor-1262 {3}			599368				
Aroclor-1262 {4}			1277066				
Aroclor-1262 {5}			225009				
Aroclor-1268			1847615				
Aroclor-1268 {2}			1965341				
Aroclor-1268 {3}			1551936				
Aroclor-1268 {4}			432171				
Aroclor-1268 {5}			4623946				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-R

Data File: R4367.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	191007	7.09
Aroclor-1016 {2}	4.04	3.97	4.11	280558	248485	11.43
Aroclor-1016 {3}	4.60	4.52	4.66	362086	325577	10.08
Aroclor-1016 {4}	5.11	5.03	5.17	164008	166397	1.46
Aroclor-1016 {5}	5.50	5.42	5.56	281062	256064	8.89
Aroclor-1260	8.30	7.39	9.19	741352	752432	1.49
Aroclor-1260 {2}	8.98	8.06	9.86	347253	347397	0.04
Aroclor-1260 {3}	9.46	8.55	10.35	852487	889502	4.34
Aroclor-1260 {4}	9.94	9.03	10.83	434353	447498	3.03
Aroclor-1260 {5}	11.00	10.10	11.90	196482	189357	3.63

Data File: R4367.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.39	3.31	3.45	290444	321926	10.84
Aroclor-1016 {2}	3.95	3.87	4.01	590133	622612	5.50
Aroclor-1016 {3}	4.68	4.59	4.73	1304848	1386740	6.28
Aroclor-1016 {4}	4.88	4.79	4.93	530233	590186	11.31
Aroclor-1016 {5}	5.04	4.96	5.10	412863	449206	8.80
Aroclor-1260	7.36	6.45	8.25	469508	486548	3.63
Aroclor-1260 {2}	7.61	6.70	8.50	703758	779140	10.71
Aroclor-1260 {3}	9.19	8.28	10.08	585394	675199	15.34
Aroclor-1260 {4}	9.70	8.79	10.59	1249191	1479184	18.41
Aroclor-1260 {5}	10.28	9.38	11.18	880259	1047174	18.96

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-R

Data File: R4384.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	189511	7.81
Aroclor-1016 {2}	4.04	3.97	4.11	280558	252511	10.00
Aroclor-1016 {3}	4.59	4.52	4.66	362086	329692	8.95
Aroclor-1016 {4}	5.10	5.03	5.17	164008	154438	5.84
Aroclor-1016 {5}	5.50	5.42	5.56	281062	258521	8.02
Aroclor-1260	8.30	7.39	9.19	741352	711637	4.01
Aroclor-1260 {2}	8.97	8.06	9.86	347253	326062	6.10
Aroclor-1260 {3}	9.45	8.55	10.35	852487	823289	3.43
Aroclor-1260 {4}	9.94	9.03	10.83	434353	419304	3.46
Aroclor-1260 {5}	11.00	10.10	11.90	196482	215258	9.56

Data File: R4384.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.39	3.31	3.45	290444	325519	12.08
Aroclor-1016 {2}	3.95	3.87	4.01	590133	645596	9.40
Aroclor-1016 {3}	4.67	4.59	4.73	1304848	1442551	10.55
Aroclor-1016 {4}	4.87	4.79	4.93	530233	609175	14.89
Aroclor-1016 {5}	5.03	4.96	5.10	412863	462335	11.98
Aroclor-1260	7.35	6.45	8.25	469508	506599	7.90
Aroclor-1260 {2}	7.60	6.70	8.50	703758	742963	5.57
Aroclor-1260 {3}	9.18	8.28	10.08	585394	623034	6.43
Aroclor-1260 {4}	9.69	8.79	10.59	1249191	1359070	8.80
Aroclor-1260 {5}	10.28	9.38	11.18	880259	977931	11.10

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.75 **DCB 1** 12.09 **TCMX 2** 2.58 **DCB 2** 11.95

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS130923-11	09/24/2013	09:45	2.75		12.09		2.58		11.95	
C1/S1	09290-001	09/24/2013	10:02	2.75		12.09		2.58		11.95	
C2/S2	09290-002	09/24/2013	10:20	2.75		12.09		2.58		11.95	
C-1_WAREHO	09196-001	09/24/2013	10:37	2.75		12.09		2.58		11.95	
C-2_LOAD_D	09196-002	09/24/2013	10:58	2.75		12.10		2.59		11.94	
C-3_BLD_2	09196-003	09/24/2013	11:16	2.75		12.10		2.58		11.95	
C-4_IMP._M	09196-004	09/24/2013	11:33	2.75		12.12		2.58		11.97	
AOC-7-2/11	09197-004	09/24/2013	13:00	2.75		12.09		2.58		11.95	
AOC-7-3/9.	09197-005	09/24/2013	13:18	2.75		12.09		2.58		11.95	
AOC-12-2/3	09197-009	09/24/2013	13:35	2.75		12.09		2.58		11.95	
VTS_D1	08883-001	09/24/2013	13:53	2.75		12.09		2.58		11.95	
PCB	09197-009MS	09/24/2013	14:10	2.75		12.09		2.58		11.95	
PCB	09197-009MSD	09/24/2013	14:28	2.75		12.09		2.58		11.95	
PCB	LCSS130923-11	09/24/2013	14:45	2.75		12.09		2.58		11.95	
C-5_SPHINX	09196-005	09/24/2013	15:03	2.75		12.10		2.58		11.95	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4371.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 10:37
Operator : JS
Sample : C-1_WAREHO,09196-001,Xs,30.59g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 16:43:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	1065.5E6	2013.4E6	75.941	100.428 #
Spiked Amount 200.000			Recovery	=	37.97%	50.21%
2) S DCB	12.09	11.95	361.4E6	597.1E6	104.753	127.868m
Spiked Amount 200.000			Recovery	=	52.38%	63.93%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
38) L9 Aroclor-1262	8.67	9.18	107.9E6	304.4E6	330.720m	372.158m
39) L9 Aroclor-1262 {2}	9.45	9.69	494.2E6	828.8E6	385.592m	449.412m
40) L9 Aroclor-1262 {3}	10.08	10.18	243.5E6	353.3E6	495.001m	589.531m
41) L9 Aroclor-1262 {4}	10.17	10.27	317.0E6	732.4E6	562.585m	573.526m
42) L9 Aroclor-1262 {5}	11.00	10.86	233.9E6	152.4E6	541.079m	677.323m#
Sum Aroclor-1262			1396.5E6	2371.3E6	2314.977	2661.950
Average Aroclor-1262					462.995	532.390
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

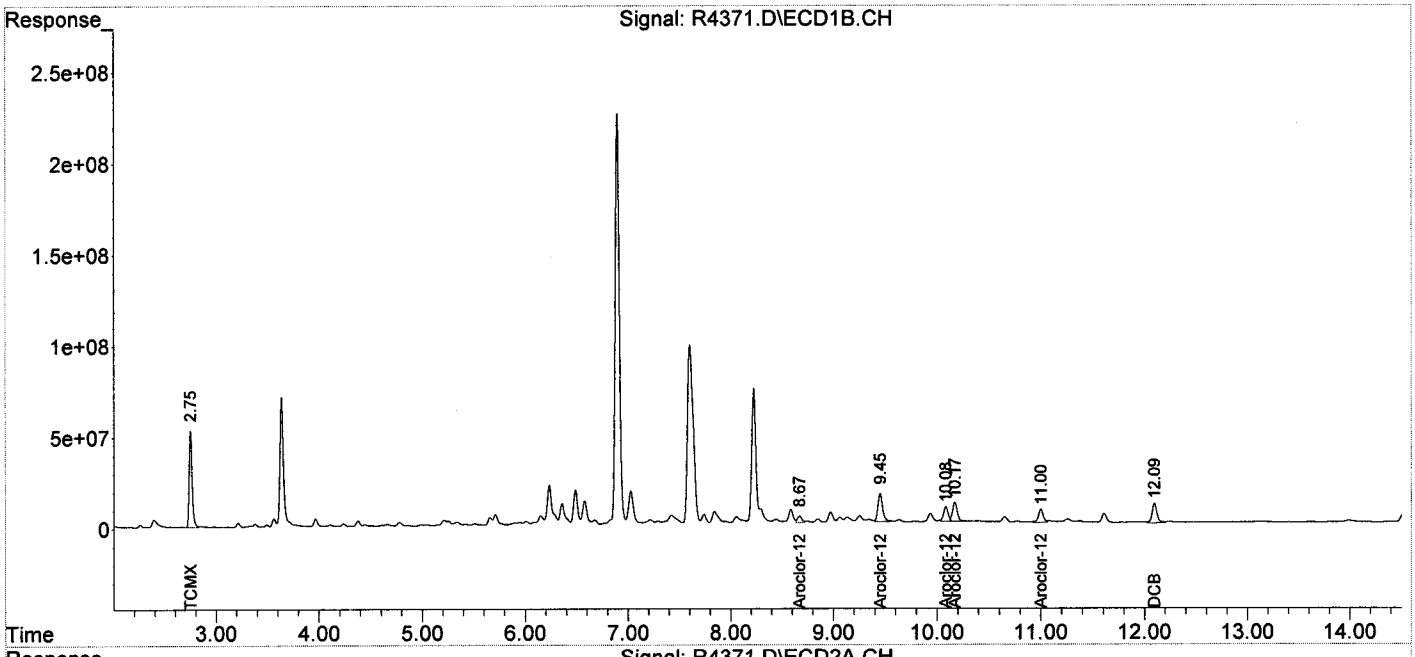
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

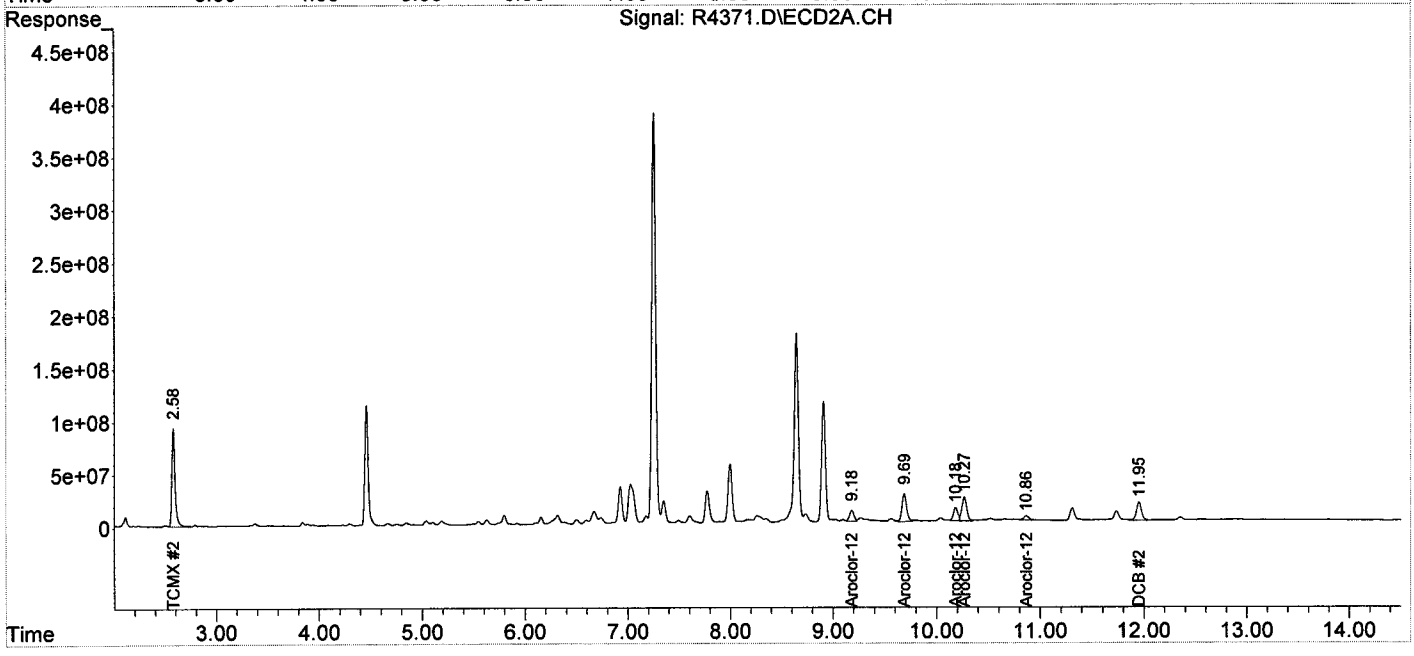
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4371.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 10:37
Operator : JS
Sample : C-1_WAREHO,09196-001,Xs,30.59g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 16:43:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4372.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 10:58
Operator : JS
Sample : C-2_LOAD_D,09196-002,Xs,30.30g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 10:57:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.59	318.1E6	601.9E6	22.674	30.024m#
Spiked Amount 200.000			Recovery =		11.34%	15.01%
2) S DCB	12.10	11.94	128.6E6	391.9E6	37.266m	83.913m#
Spiked Amount 200.000			Recovery =		18.63%	41.96%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
38) L9 Aroclor-1262	8.67	9.19	65975373	196.1E6	202.245m	239.840m
39) L9 Aroclor-1262 {2}	9.46	9.69	358.6E6	427.9E6	279.795m	232.017m
40) L9 Aroclor-1262 {3}	10.09	10.19	146.0E6	208.7E6	296.845m	348.146m
41) L9 Aroclor-1262 {4}	10.17	10.27	189.8E6	373.8E6	336.731m	292.720m
42) L9 Aroclor-1262 {5}	11.00	10.86	139.3E6	87968617	322.367m	390.956m
Sum Aroclor-1262			899.7E6	1294.5E6	1437.982	1503.679
Average Aroclor-1262					287.596	300.736
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

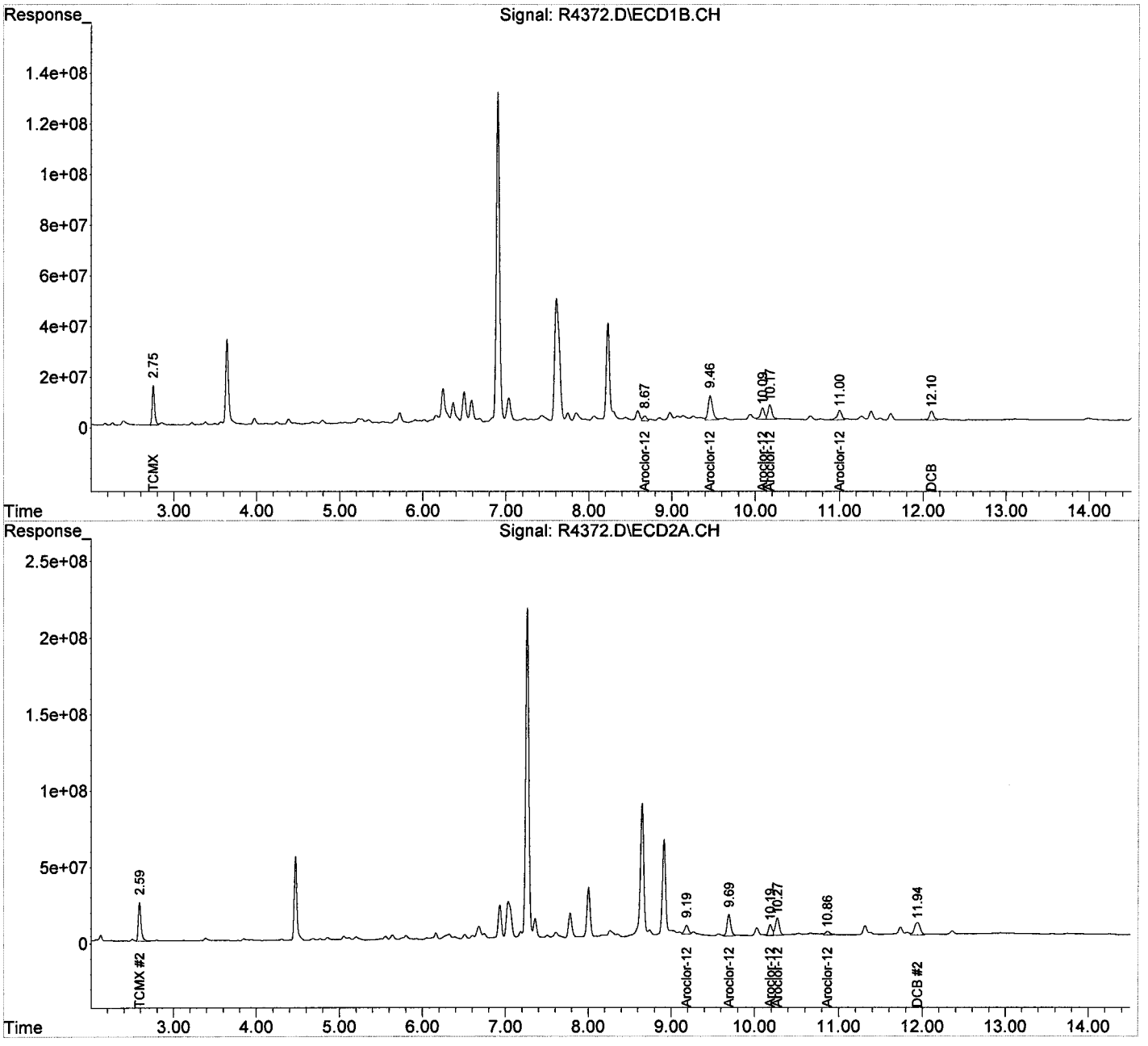
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4372.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 10:58
Operator : JS
Sample : C-2_LOAD_D,09196-002,Xs,30.30g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 10:57:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4373.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 11:16
Operator : JS
Sample : C-3_BLD_2,09196-003,Xs,30.69g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:11:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

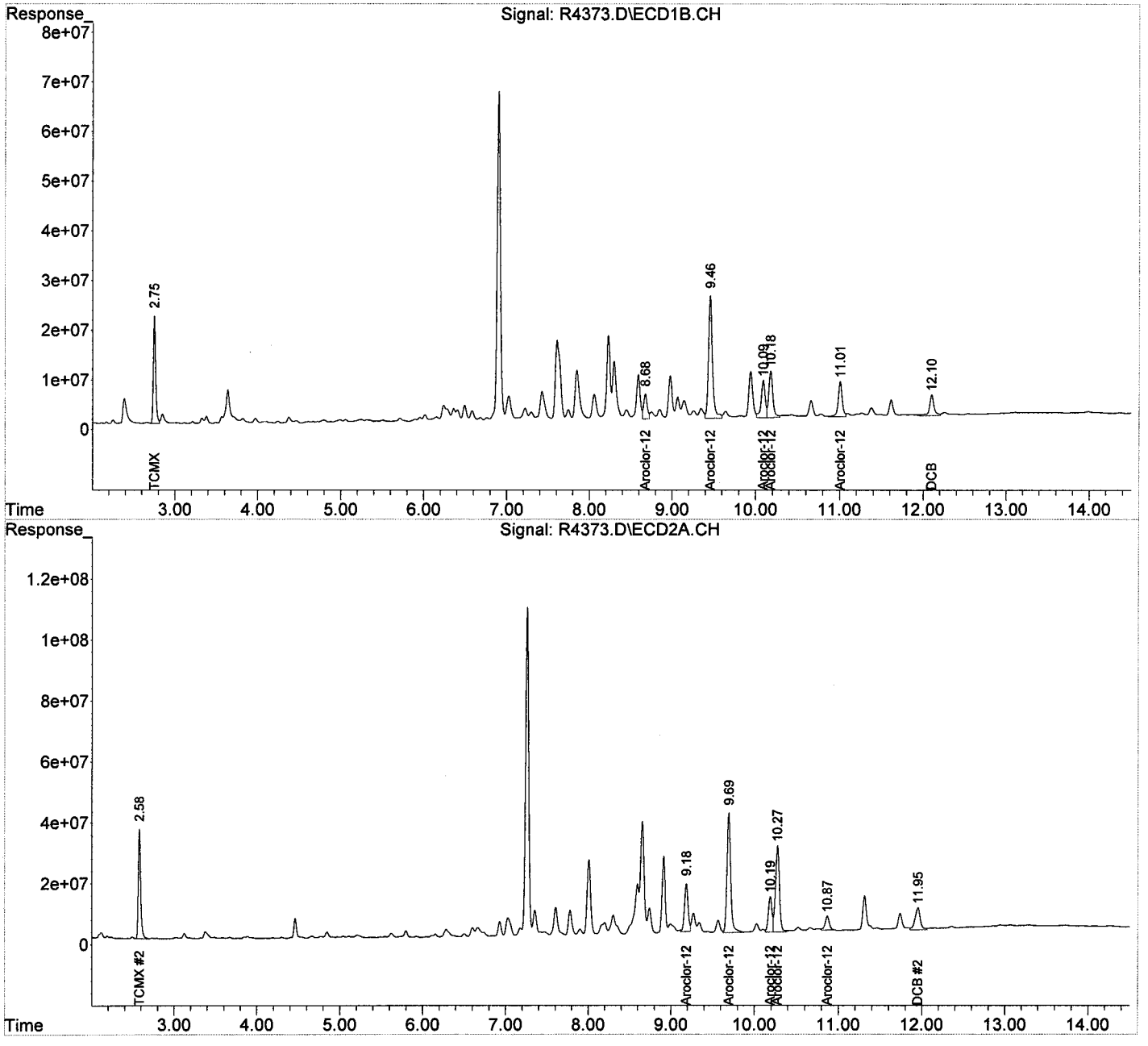
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	420.9E6	731.5E6	29.996	36.488
Spiked Amount 200.000			Recovery	=	15.00%	18.24%
2) S DCB	12.10	11.95	170.0E6	324.1E6	49.289	69.397 #
Spiked Amount 200.000			Recovery	=	24.64%	34.70%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
38) L9 Aroclor-1262	8.68	9.18	154.4E6	472.2E6	473.341	577.426m
39) L9 Aroclor-1262 {2}	9.46	9.69	820.2E6	1231.8E6	639.924	667.970
40) L9 Aroclor-1262 {3}	10.09	10.19	248.5E6	349.3E6	505.164	582.735
41) L9 Aroclor-1262 {4}	10.18	10.27	319.0E6	943.9E6	566.074	739.121 #
42) L9 Aroclor-1262 {5}	11.01	10.87	240.6E6	155.7E6	556.679	692.043m
Sum Aroclor-1262			1782.8E6	3153.0E6	2741.181	3259.296
Average Aroclor-1262					548.236	651.859
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4373.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 11:16
Operator : JS
Sample : C-3_BLD_2,09196-003,Xs,30.69g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:11:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4374.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 11:33
Operator : JS
Sample : C-4_IMP._M,09196-004,Xs,30.24g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 11:00:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	169.6E6	274.8E6	12.091m	13.707
Spiked Amount 200.000			Recovery =		6.05%	6.85%
2) S DCB	12.12	11.97	66736425	110.4E6	19.346m	23.648m
Spiked Amount 200.000			Recovery =		9.67%	11.82%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
38) L9 Aroclor-1262	8.70	9.20	206.7E6	514.1E6	633.709m	628.580m
39) L9 Aroclor-1262 {2}	9.48	9.72	1135.3E6	1615.7E6	885.761m	876.149m
40) L9 Aroclor-1262 {3}	10.12	10.21	480.1E6	663.1E6	975.982m	1106.379m
41) L9 Aroclor-1262 {4}	10.21	10.30	698.6E6	1434.1E6	1239.645m	1122.938m
42) L9 Aroclor-1262 {5}	11.04	10.89	478.9E6	238.2E6	1107.972m	1058.607m
Sum Aroclor-1262			2999.6E6	4465.2E6	4843.069	4792.653
Average Aroclor-1262					968.614	958.531
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

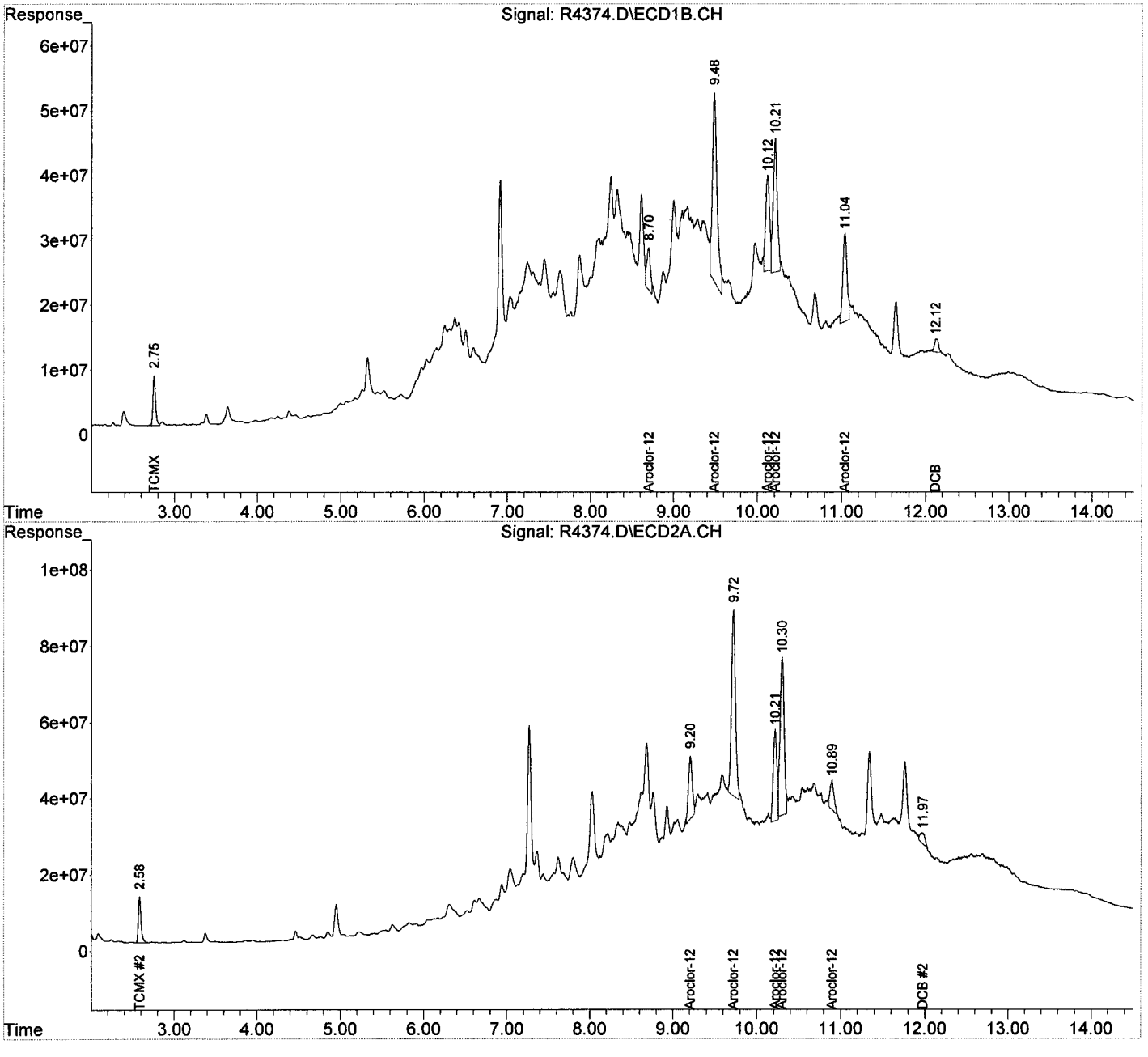
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4374.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 11:33
Operator : JS
Sample : C-4_IMP._M,09196-004,Xs,30.24g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 11:00:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4383.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:03
Operator : JS
Sample : C-5_SPHINX,09196-005,Xs,30.22g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 16:55:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	466.9E6	821.3E6	33.279	40.966
Spiked Amount 200.000			Recovery =		16.64%	20.48%
2) S DCB	12.10	11.95	156.8E6	331.1E6	45.465m	70.906m#
Spiked Amount 200.000			Recovery =		22.73%	35.45%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
38) L9 Aroclor-1262	8.68	9.19	239.4E6	743.4E6	733.771m	909.026
39) L9 Aroclor-1262 {2}	9.46	9.70	1198.7E6	1941.3E6	935.215	1052.676
40) L9 Aroclor-1262 {3}	10.09	10.19	705.0E6	983.5E6	1433.030	1640.946
41) L9 Aroclor-1262 {4}	10.18	10.28	889.9E6	1810.4E6	1579.123	1417.634
42) L9 Aroclor-1262 {5}	11.01	10.87	483.7E6	291.8E6	1119.123m	1296.881m
Sum Aroclor-1262			3516.6E6	5770.5E6	5800.261	6317.163
Average Aroclor-1262					1160.052	1263.433
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

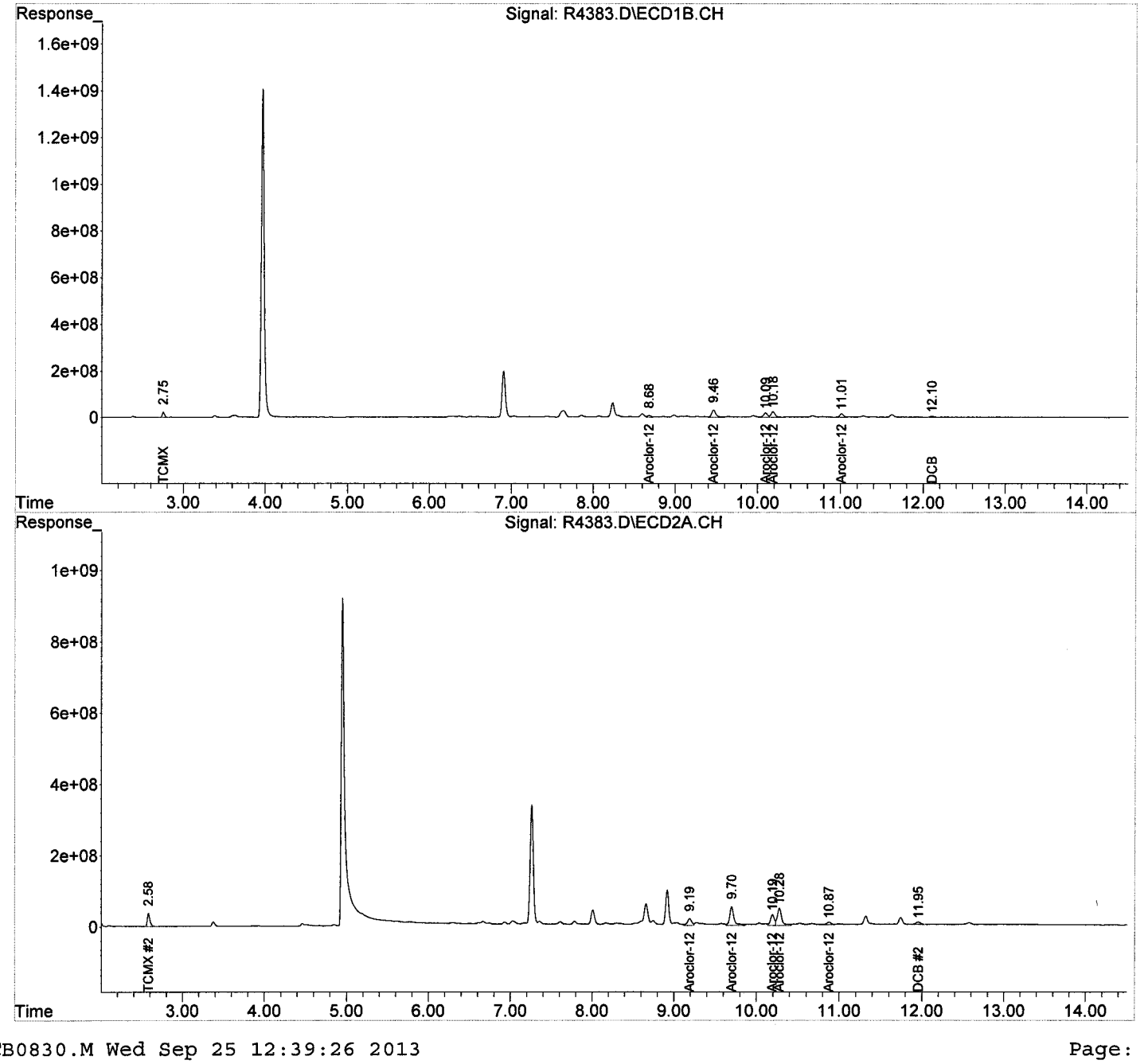
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4383.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:03
Operator : JS
Sample : C-5_SPHINX,09196-005,Xs,30.22g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 16:55:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS130923-11
Client ID: PCB
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4368.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00167	0.000668
Aroclor-1221	ND		0.00167	0.000668
Aroclor-1232	ND		0.00167	0.000668
Aroclor-1242	ND		0.00167	0.000668
Aroclor-1248	ND		0.00167	0.000668
Aroclor-1254	ND		0.00167	0.000668
Aroclor-1260	ND		0.00167	0.000668
Aroclor-1262	ND		0.00167	0.000668
Aroclor-1268	ND		0.00167	0.000668
PCBs	ND		0.00167	0.000668

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4368.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 9:45
Operator : JS
Sample : PCB,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 16:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	1862.0E6	3241.5E6	132.702	161.686
Spiked Amount 200.000			Recovery	=	66.35%	80.84%
2) S DCB	12.09	11.95	550.3E6	874.4E6	159.535	187.246
Spiked Amount 200.000			Recovery	=	79.77%	93.62%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

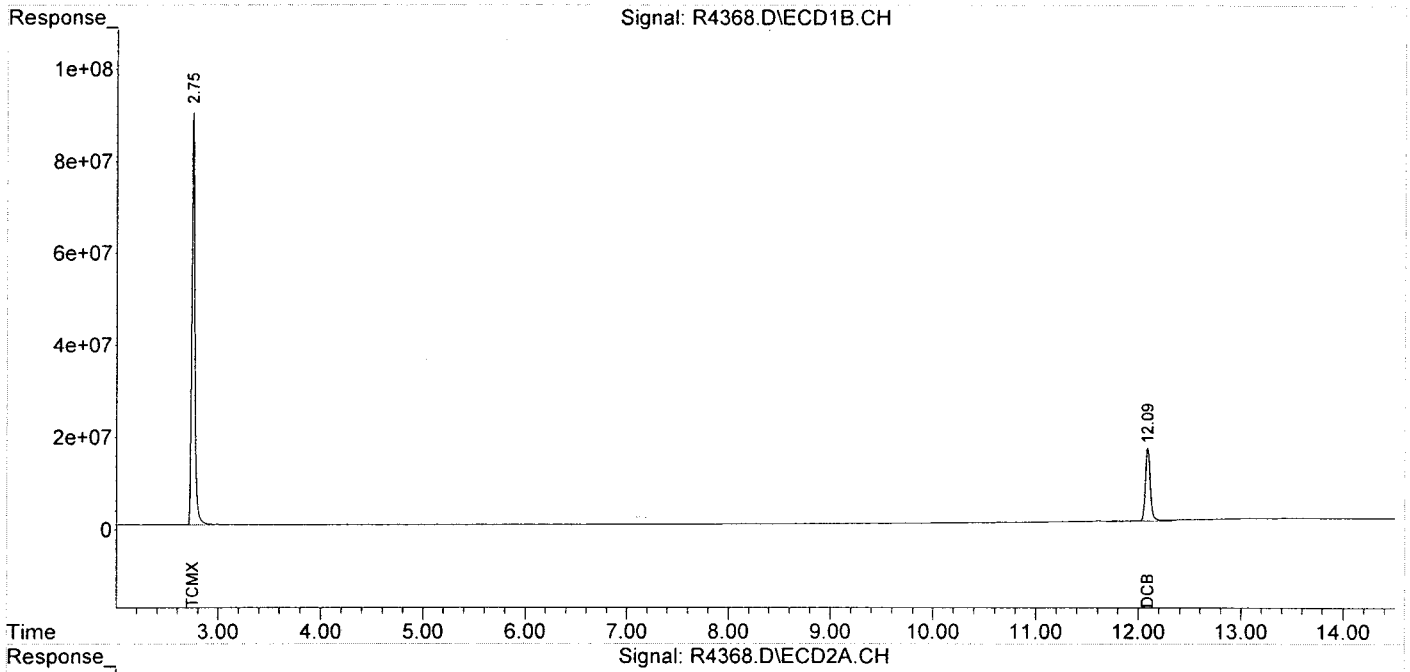
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

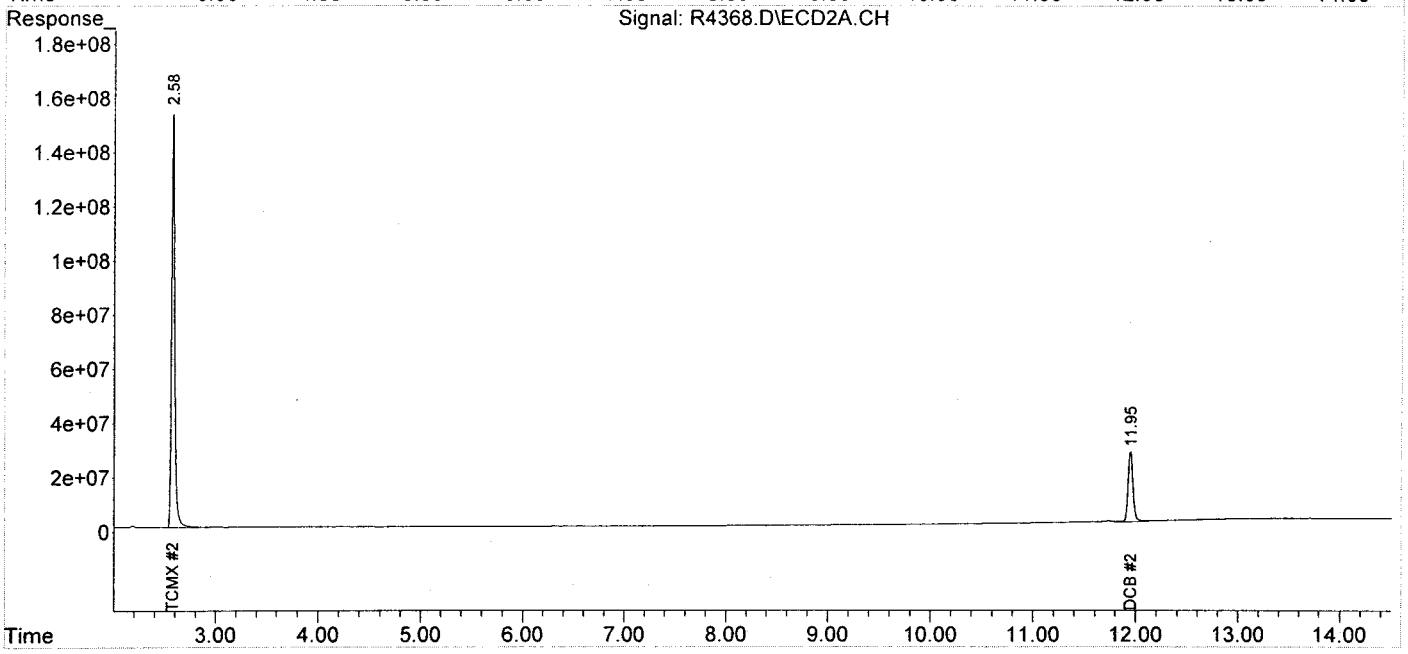
E13-09196 0232

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4368.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 9:45
Operator : JS
Sample : PCB,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 16:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS130923-11	SOIL	66		79		69		79	
C1/S1	09290-001	SOIL	51		64		51		80	
C2/S2	09290-002	SOIL	51		68		51		81	
PI-6N1/0-0	09339-001	SOIL	56		81		54		83	
PI-6E1/0-0	09339-003	SOIL	52		77		52		76	
PI-6W1/0-0	09339-005	SOIL	50		68		49		85	
PI-6S1/0-0	09339-007	SOIL	57		79		58		88	
PI-6D1/1-1	09339-009	SOIL	48		65		47		84	
C-1_WAREHO	09196-001	SOLID	36		82		43		101	
C-2_LOAD_D	09196-002	SOLID	33		90		30		90	
C-3_BLD_2	09196-003	SOLID	32		93		39		143	
C-4_IMP._M	09196-004	SOLID	38		140		40		1090	M
C-5_SPHINX	09196-005	SOLID	41		146		35		215	M
PI-6S1/0-0	09339-007DL	SOIL	55		73		56		70	
C-1_WAREHO	09196-001DL	SOLID	43		59		44		93	
C-2_LOAD_D	09196-002DL	SOLID	33		84		32		139	
C-3_BLD_2	09196-003DL	SOLID	36		126		40		123	
C-5_SPHINX	09196-005DL	SOLID	42		83		37		441	M
AOC-7-2/11	09197-004	SOIL	40		1637	M	32		137	
AOC-7-3/9.	09197-005	SOIL	39		80		35		89	
AOC-8/12.5	09197-007	SOIL	41		51		33		63	
AOC-12-2/3	09197-009	SOIL	36		42		30		57	
AOC-6/18.5	09197-010	SOIL	51		59		47		77	
AOC-12-3/1	09198-003	SOIL	57		86		54		73	
VTS_D1	08883-001	SOIL	53		54		54		72	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	09198-003MSD	SOIL	59		72		60		83	
Pest	LCSS130923-11	SOIL	80		89		79		89	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130923-11
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4650.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	80.16	80
beta-BHC	100.0	0.00	77.60	78
gamma-BHC (Lindane)	100.0	0.00	82.00	82
delta-BHC	100.0	0.00	81.99	82
Heptachlor	100.0	0.00	78.79	79
Aldrin	100.0	0.00	79.55	80
Heptachlor epoxide	100.0	0.00	78.33	78
Endosulfan I	100.0	0.00	80.67	81
4,4'-DDE	100.0	0.00	81.17	81
Dieldrin	100.0	0.00	70.04	70
Endrin	100.0	0.00	85.01	85
Endosulfan II	100.0	0.00	75.64	76
4,4'-DDD	100.0	0.00	81.84	82
Endrin aldehyde	100.0	0.00	69.95	70
Endosulfan sulfate	100.0	0.00	71.43	71
4,4'-DDT	100.0	0.00	62.18	62
Endrin ketone	100.0	0.00	73.23	73
Methoxychlor	100.0	0.00	67.49	67
alpha-Chlordane	100.0	0.00	78.90	79
gamma-Chlordane	100.0	0.00	79.30	79

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	30-140	30-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09198-003
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
MS Data file: V4648.D
MSD Data file: V4649.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.22g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	55.80	56		59.54	60	6
beta-BHC	100.00	0.00	58.89	59		64.37	64	9
gamma-BHC (Lindane)	100.00	0.00	57.65	58		61.27	61	6
delta-BHC	100.00	0.00	60.76	61		64.68	65	6
Heptachlor	100.00	0.00	52.07	52		55.80	56	7
Aldrin	100.00	0.00	55.85	56		59.74	60	7
Heptachlor epoxide	100.00	0.00	56.72	57		61.08	61	7
Endosulfan I	100.00	0.00	57.33	57		63.12	63	10
4,4'-DDE	100.00	0.00	59.22	59		63.82	64	7
Dieldrin	100.00	0.00	50.76	51		54.90	55	8
Endrin	100.00	0.00	61.99	62		66.19	66	7
Endosulfan II	100.00	0.00	56.29	56		59.33	59	5
4,4'-DDD	100.00	0.00	65.44	65		69.94	70	7
Endrin aldehyde	100.00	0.00	41.47	41		40.91	41	1
Endosulfan sulfate	100.00	0.00	55.48	55		57.19	57	3
4,4'-DDT	100.00	0.00	33.66	34		37.73	38	11
Endrin ketone	100.00	0.00	53.12	53		58.86	59	10
Methoxychlor	100.00	0.00	45.79	46		46.31	46	1
alpha-Chlordane	100.00	0.00	56.38	56		61.73	62	9
gamma-Chlordane	100.00	0.00	56.60	57		61.05	61	8

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V4621.D

Instrument ID: GC-V

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 11:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
C1/S1	09290-001	09/24/2013	12:01
C2/S2	09290-002	09/24/2013	12:13
PI-6N1/0-0	09339-001	09/24/2013	12:25
PI-6E1/0-0	09339-003	09/24/2013	12:37
PI-6W1/0-0	09339-005	09/24/2013	12:49
PI-6S1/0-0	09339-007	09/24/2013	13:01
PI-6D1/1-1	09339-009	09/24/2013	13:13
C-1_WAREHO	09196-001	09/24/2013	13:25
C-2_LOAD_D	09196-002	09/24/2013	13:37
C-3_BLD_2	09196-003	09/24/2013	13:49
C-4_IMP._M	09196-004	09/24/2013	14:01
C-5_SPHINX	09196-005	09/24/2013	14:13
PI-6S1/0-0	09339-007DL	09/24/2013	15:04
C-1_WAREHO	09196-001DL	09/24/2013	15:16
C-2_LOAD_D	09196-002DL	09/24/2013	15:28
C-3_BLD_2	09196-003DL	09/24/2013	15:41
C-5_SPHINX	09196-005DL	09/24/2013	15:53
AOC-7-2/11	09197-004	09/24/2013	16:05
AOC-7-3/9.	09197-005	09/24/2013	16:29
AOC-8/12.5	09197-007	09/24/2013	16:41
AOC-12-2/3	09197-009	09/24/2013	16:53
AOC-6/18.5	09197-010	09/24/2013	17:05
AOC-12-3/1	09198-003	09/24/2013	17:17
VTS_D1	08883-001	09/24/2013	17:29
Pest	09198-003MS	09/24/2013	

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V4621.D

Instrument ID: GC-V

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 11:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Pest	09198-003MSD	09/24/2013	17:53
Pest	LCSS130923-11	09/24/2013	18:05

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4592.D V4591.D V4590.D V4589.D V4588.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	2	50	100	200	300	RT	FROM	TO
alpha-BHC	2.37	2.37	2.37	2.37	2.37	2.37	2.31	2.43
beta-BHC	2.69	2.69	2.69	2.69	2.69	2.69	2.63	2.75
gamma-BHC	2.62	2.62	2.62	2.62	2.62	2.62	2.56	2.68
delta-BHC	2.85	2.85	2.85	2.85	2.85	2.85	2.79	2.91
Heptachlor	3.04	3.04	3.04	3.04	3.04	3.04	2.96	3.12
Aldrin	3.33	3.33	3.33	3.33	3.33	3.33	3.25	3.41
Heptachlor epoxide	3.98	3.98	3.98	3.98	3.98	3.98	3.90	4.06
Endosulfan I	4.44	4.44	4.44	4.44	4.44	4.44	4.36	4.52
4,4'-DDE	4.39	4.39	4.38	4.39	4.39	4.39	4.29	4.49
Dieldrin	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Endrin	5.03	5.03	5.02	5.03	5.03	5.03	4.93	5.13
Endosulfan II	5.32	5.32	5.32	5.32	5.32	5.32	5.22	5.42
4,4'-DDD	5.15	5.15	5.15	5.15	5.15	5.15	5.05	5.25
Endrin aldehyde	5.90	5.90	5.90	5.90	5.90	5.90	5.78	6.02
Endosulfan sulfate	6.52	6.52	6.52	6.52	6.52	6.52	6.40	6.64
4,4'-DDT	5.52	5.52	5.52	5.52	5.52	5.52	5.40	5.64
Endrin ketone	6.88	6.88	6.88	6.88	6.88	6.88	6.76	7.00
Methoxychlor	6.24	6.24	6.24	6.24	6.24	6.24	6.12	6.36
alpha-Chlordane	4.28	4.28	4.28	4.28	4.28	4.28	4.20	4.36
gamma-Chlordane	4.12	4.12	4.12	4.12	4.12	4.12	4.04	4.20
Chlordane 500 ppb			2.97				2.89	3.05
Chlordane {2}			3.47				3.39	3.55
Chlordane {3}			4.12				4.04	4.20
Chlordane {4}			4.27				4.19	4.35
Chlordane {5}			5.23				5.15	5.31
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.40				5.32	5.48
Toxaphene {3}			5.87				5.79	5.95
Toxaphene {4}			6.37				6.29	6.45
Toxaphene {5}			6.86				6.78	6.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4592.D V4591.D V4590.D V4589.D V4588.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	347678	346418	345062	395828	363569	359711	5.99
beta-BHC	141529	124410	123822	159328	142260	138270	10.67
gamma-BHC	285044	302071	304263	335651	309704	307347	5.96
delta-BHC	318353	309454	303846	358195	325485	323067	6.60
Heptachlor	297982	313491	304187	354147	322544	318470	6.91
Aldrin	305406	310556	302159	344489	315278	315577	5.36
Heptachlor epoxide	284978	277309	266362	301560	273471	280736	4.79
Endosulfan I	292081	297402	279594	323004	290955	296607	5.43
4,4'-DDE	211496	222455	222263	256010	234778	229400	7.41
Dieldrin	289855	276081	275409	310895	282157	286879	5.10
Endrin	238110	247891	242093	276437	252109	251328	5.98
Endosulfan II	263759	242034	230993	267999	240844	249126	6.40
4,4'-DDD	233637	221480	210325	244172	220459	226015	5.79
Endrin aldehyde	222224	185371	174905	203745	182337	193717	9.88
Endosulfan sulfate	225073	212795	199539	232044	208191	215528	6.05
4,4'-DDT	191416	166692	173290	226749	210029	193635	12.94
Endrin ketone	251375	255896	238821	276464	247214	253954	5.54
Methoxychlor	85157	85324	86222	108672	99532	92981	11.47
alpha-Chlordane	277114	270432	262029	299467	273510	276510	5.06
gamma-Chlordane	280577	279150	271656	310502	284095	285196	5.21
Chlordane 500 ppb			7578				
Chlordane {2}			9120				
Chlordane {3}			27556				
Chlordane {4}			43517				
Chlordane {5}			7002				
Toxaphene 500 ppb			2995				
Toxaphene {2}			4340				
Toxaphene {3}			5723				
Toxaphene {4}			6032				
Toxaphene {5}			5978				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V4592.C V4591.C V4590.C V4589.C V4588.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WI NDOW FROM	TO
alpha-BHC	2.86	2.86	2.86	2.86	2.86	2.86	2.80	2.92
beta-BHC	3.30	3.30	3.30	3.30	3.30	3.30	3.24	3.36
gamma-BHC	3.22	3.22	3.22	3.22	3.22	3.22	3.16	3.28
delta-BHC	3.62	3.63	3.63	3.62	3.62	3.62	3.56	3.68
Heptachlor	3.71	3.72	3.72	3.72	3.72	3.72	3.64	3.80
Aldrin	4.10	4.10	4.10	4.10	4.10	4.10	4.02	4.18
Heptachlor epoxide	4.82	4.82	4.82	4.82	4.82	4.82	4.74	4.90
Endosulfan I	5.35	5.35	5.35	5.35	5.35	5.35	5.27	5.43
4,4'-DDE	5.53	5.53	5.53	5.53	5.53	5.53	5.43	5.63
Dieldrin	5.74	5.74	5.74	5.74	5.74	5.74	5.64	5.84
Endrin	6.17	6.17	6.17	6.17	6.17	6.17	6.07	6.27
Endosulfan II	6.49	6.49	6.49	6.49	6.49	6.49	6.39	6.59
4,4'-DDD	6.37	6.37	6.37	6.37	6.37	6.37	6.27	6.47
Endrin aldehyde	6.95	6.95	6.95	6.95	6.95	6.95	6.83	7.07
Endosulfan sulfate	7.26	7.26	7.26	7.26	7.26	7.26	7.14	7.38
4,4'-DDT	6.82	6.82	6.82	6.82	6.82	6.82	6.70	6.94
Endrin ketone	7.77	7.77	7.77	7.77	7.77	7.77	7.65	7.89
Methoxychlor	7.57	7.58	7.58	7.58	7.58	7.58	7.46	7.70
alpha-Chlordane	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
gamma-Chlordane	5.08	5.08	5.08	5.08	5.08	5.08	5.00	5.16
Chlordane 500 ppb			3.55				3.47	3.63
Chlordane {2}			4.28				4.20	4.36
Chlordane {3}			5.08				5.00	5.16
Chlordane {4}			5.21				5.13	5.29
Chlordane {5}			5.28				5.20	5.36
Toxaphene 500 ppb			6.62				6.54	6.70
Toxaphene {2}			6.96				6.88	7.04
Toxaphene {3}			7.21				7.13	7.29
Toxaphene {4}			7.51				7.43	7.59
Toxaphene {5}			7.86				7.78	7.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V4592.C V4591.C V4590.C V4589.C V4588.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	1425053	1377331	1324482	1520622	1382702	1406038	5.22
beta-BHC	533298	527060	471815	551228	496617	516004	6.12
gamma-BHC	1220996	1218448	1166622	1320555	1197782	1224881	4.71
delta-BHC	1287860	1195048	1121925	1286419	1152718	1208794	6.29
Heptachlor	1323562	1207499	1139489	1287823	1151217	1221918	6.68
Aldrin	1250670	1243746	1143886	1267028	1138531	1208772	5.15
Heptachlor epoxide	1046590	1070933	969823	1062743	946328	1019283	5.61
Endosulfan I	910703	899259	900872	988342	877592	915354	4.65
4,4'-DDE	959397	862726	898836	983804	873412	915635	5.84
Dieldrin	966279	944600	955000	1054598	937994	971694	4.90
Endrin	750688	758543	773042	852963	761971	779441	5.37
Endosulfan II	930367	788967	819609	899051	789517	845502	7.73
4,4'-DDD	747355	659041	681146	764449	675379	705474	6.68
Endrin aldehyde	603447	520611	502170	579290	513357	543775	8.23
Endosulfan sulfate	626034	584839	528648	622446	554915	583376	7.25
4,4'-DDT	499884	485099	490735	636830	579475	538404	12.45
Endrin ketone	547612	544727	517789	615325	554334	555958	6.47
Methoxychlor	200571	189994	172990	221527	218942	200805	10.11
alpha-Chlordane	968252	916193	908337	1017602	915078	945093	4.99
gamma-Chlordane	1063034	976008	982687	1096722	982639	1020218	5.47
Chlordane 500 ppb			33798				
Chlordane {2}			38358				
Chlordane {3}			103667				
Chlordane {4}			81930				
Chlordane {5}			87377				
Toxaphene 500 ppb			14633				
Toxaphene {2}			15901				
Toxaphene {3}			12662				
Toxaphene {4}			12244				
Toxaphene {5}			8968				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4615.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	342107	4.89
beta-BHC	2.69	2.63	2.75	138270	145814	5.46
gamma-BHC	2.62	2.56	2.68	307347	293958	4.36
delta-BHC	2.85	2.79	2.91	323067	323865	0.25
Heptachlor	3.04	2.96	3.12	318470	294160	7.63
Aldrin	3.33	3.25	3.41	315577	302908	4.01
Heptachlor epoxide	3.98	3.90	4.06	280736	272451	2.95
Endosulfan I	4.44	4.36	4.52	296607	295053	0.52
4,4'-DDE	4.39	4.29	4.49	229400	230893	0.65
Dieldrin	4.74	4.63	4.83	286879	250654	12.63
Endrin	5.03	4.93	5.13	251328	244267	2.81
Endosulfan II	5.32	5.22	5.42	249126	248355	0.31
4,4'-DDD	5.15	5.05	5.25	226015	231626	2.48
Endrin aldehyde	5.90	5.78	6.02	193717	195790	1.07
Endosulfan sulfate	6.52	6.40	6.64	215528	216389	0.40
4,4'-DDT	5.53	5.40	5.64	193635	161574	16.56
Endrin ketone	6.88	6.76	7.00	253954	259542	2.20
Methoxychlor	6.25	6.12	6.36	92981	78123	15.98
alpha-Chlordane	4.28	4.20	4.36	276510	270184	2.29
gamma-Chlordane	4.12	4.04	4.20	285196	278432	2.37
Chlordane 500 ppb	2.97	2.89	3.05	7578	7923	4.56
Chlordane {2}	3.47	3.39	3.55	9120	9769	7.12
Chlordane {3}	4.12	4.04	4.20	27556	29447	6.86
Chlordane {4}	4.27	4.19	4.35	43517	46343	6.49
Chlordane {5}	5.23	5.15	5.31	7002	7066	0.91
Toxaphene 500 ppb	5.08	4.99	5.15	2995	3298	10.11
Toxaphene {2}	5.42	5.32	5.48	4340	3714	14.41
Toxaphene {3}	5.88	5.79	5.95	5723	5308	7.25
Toxaphene {4}	6.38	6.29	6.45	6032	5385	10.72
Toxaphene {5}	6.86	6.78	6.94	5978	5616	6.07

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4615.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1305950	7.12
beta-BHC	3.30	3.24	3.36	516004	478438	7.28
gamma-BHC	3.22	3.16	3.28	1224881	1174751	4.09
delta-BHC	3.63	3.56	3.68	1208794	1162779	3.81
Heptachlor	3.72	3.64	3.80	1221918	1088582	10.91
Aldrin	4.11	4.02	4.18	1208772	1118169	7.50
Heptachlor epoxide	4.83	4.74	4.90	1019283	945667	7.22
Endosulfan I	5.36	5.27	5.43	915354	880712	3.78
4,4'-DDE	5.53	5.43	5.63	915635	898778	1.84
Dieldrin	5.74	5.64	5.84	971694	832697	14.30
Endrin	6.18	6.07	6.27	779441	747885	4.05
Endosulfan II	6.49	6.39	6.59	845502	818550	3.19
4,4'-DDD	6.38	6.27	6.47	705474	714109	1.22
Endrin aldehyde	6.95	6.83	7.07	543775	540727	0.56
Endosulfan sulfate	7.27	7.14	7.38	583376	556645	4.58
4,4'-DDT	6.83	6.70	6.94	538404	431768	19.81
Endrin ketone	7.77	7.65	7.89	555958	552244	0.67
Methoxychlor	7.58	7.46	7.70	200805	196164	2.31
alpha-Chlordane	5.28	5.20	5.36	945093	901614	4.60
gamma-Chlordane	5.08	5.00	5.16	1020218	964626	5.45
Chlordane 500 ppb	3.55	3.47	3.63	33798	34759	2.84
Chlordane {2}	4.28	4.20	4.36	38358	37937	1.10
Chlordane {3}	5.08	5.00	5.16	103667	105079	1.36
Chlordane {4}	5.21	5.13	5.29	81930	82551	0.76
Chlordane {5}	5.28	5.20	5.36	87377	91344	4.54
Toxaphene 500 ppb	6.63	6.54	6.70	14633	12489	14.65
Toxaphene {2}	6.98	6.88	7.04	15901	13549	14.79
Toxaphene {3}	7.22	7.13	7.29	12662	10856	14.27
Toxaphene {4}	7.51	7.43	7.59	12244	10700	12.61
Toxaphene {5}	7.87	7.78	7.94	8968	7944	11.42

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4651.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	378224	5.15
beta-BHC	2.69	2.63	2.75	138270	152327	10.17
gamma-BHC	2.62	2.56	2.68	307347	329467	7.20
delta-BHC	2.85	2.79	2.91	323067	351433	8.78
Heptachlor	3.04	2.96	3.12	318470	315977	0.78
Aldrin	3.33	3.25	3.41	315577	334622	6.03
Heptachlor epoxide	3.98	3.90	4.06	280736	296596	5.65
Endosulfan I	4.44	4.36	4.52	296607	320711	8.13
4,4'-DDE	4.39	4.29	4.49	229400	247127	7.73
Dieldrin	4.73	4.63	4.83	286879	266254	7.19
Endrin	5.03	4.93	5.13	251328	266394	5.99
Endosulfan II	5.32	5.22	5.42	249126	251072	0.78
4,4'-DDD	5.15	5.05	5.25	226015	253604	12.21
Endrin aldehyde	5.90	5.78	6.02	193717	193524	0.10
Endosulfan sulfate	6.52	6.40	6.64	215528	210351	2.40
4,4'-DDT	5.52	5.40	5.64	193635	159950	17.40
Endrin ketone	6.88	6.76	7.00	253954	237906	6.32
Methoxychlor	6.24	6.12	6.36	92981	83236	10.48
alpha-Chlordane	4.28	4.20	4.36	276510	290714	5.14
gamma-Chlordane	4.12	4.04	4.20	285196	302155	5.95

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4651.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1472856	4.75
beta-BHC	3.30	3.24	3.36	516004	537037	4.08
gamma-BHC	3.22	3.16	3.28	1224881	1313635	7.25
delta-BHC	3.62	3.56	3.68	1208794	1276661	5.61
Heptachlor	3.71	3.64	3.80	1221918	1180838	3.36
Aldrin	4.10	4.02	4.18	1208772	1247233	3.18
Heptachlor epoxide	4.82	4.74	4.90	1019283	1047093	2.73
Endosulfan I	5.35	5.27	5.43	915354	963332	5.24
4,4'-DDE	5.53	5.43	5.63	915635	943219	3.01
Dieldrin	5.74	5.64	5.84	971694	892875	8.11
Endrin	6.17	6.07	6.27	779441	827275	6.14
Endosulfan II	6.49	6.39	6.59	845502	845320	0.02
4,4'-DDD	6.37	6.27	6.47	705474	770882	9.27
Endrin aldehyde	6.95	6.83	7.07	543775	533845	1.83
Endosulfan sulfate	7.26	7.14	7.38	583376	540056	7.43
4,4'-DDT	6.82	6.70	6.94	538404	441591	17.98
Endrin ketone	7.77	7.65	7.89	555958	572551	2.98
Methoxychlor	7.57	7.46	7.70	200805	167890	16.39
alpha-Chlordane	5.28	5.20	5.36	945093	965094	2.12
gamma-Chlordane	5.08	5.00	5.16	1020218	1056385	3.55

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.99 **DCB 1** 7.90 **TCMX 2** 2.35 **DCB 2** 8.83

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS130923-11	09/24/2013	11:49	1.99		7.90		2.35		8.83	
C1/S1	09290-001	09/24/2013	12:01	1.98		7.89		2.33		8.82	
C2/S2	09290-002	09/24/2013	12:13	1.98		7.89		2.33		8.82	
PI-6N1/0-0	09339-001	09/24/2013	12:25	1.98		7.89		2.33		8.82	
PI-6E1/0-0	09339-003	09/24/2013	12:37	1.98		7.89		2.33		8.82	
PI-6W1/0-0	09339-005	09/24/2013	12:49	1.98		7.89		2.33		8.82	
PI-6S1/0-0	09339-007	09/24/2013	13:01	1.98		7.89		2.33		8.82	
PI-6D1/1-1	09339-009	09/24/2013	13:13	1.98		7.89		2.33		8.82	
C-1_WAREHO	09196-001	09/24/2013	13:25	1.98		7.89		2.33		8.82	
C-2_LOAD_D	09196-002	09/24/2013	13:37	1.98		7.89		2.33		8.82	
C-3_BLD_2	09196-003	09/24/2013	13:49	1.98		7.89		2.33		8.82	
C-4_IMP._M	09196-004	09/24/2013	14:01	1.98		7.88		2.33		8.82	
C-5_SPHINX	09196-005	09/24/2013	14:13	1.98		7.89		2.33		8.82	
PI-6S1/0-0	09339-007DL	09/24/2013	15:04	1.99		7.89		2.34		8.83	
C-1_WAREHO	09196-001DL	09/24/2013	15:16	1.98		7.89		2.33		8.82	
C-2_LOAD_D	09196-002DL	09/24/2013	15:28	1.98		7.88		2.33		8.82	
C-3_BLD_2	09196-003DL	09/24/2013	15:41	1.98		7.89		2.33		8.82	
C-5_SPHINX	09196-005DL	09/24/2013	15:53	1.98		7.89		2.33		8.81	
AOC-7-2/11	09197-004	09/24/2013	16:05	1.98		7.83		2.33		8.82	
AOC-7-3/9.	09197-005	09/24/2013	16:29	1.98		7.89		2.33		8.82	
AOC-8/12.5	09197-007	09/24/2013	16:41	1.98		7.89		2.33		8.82	
AOC-12-2/3	09197-009	09/24/2013	16:53	1.98		7.89		2.33		8.82	
AOC-6/18.5	09197-010	09/24/2013	17:05	1.98		7.89		2.33		8.82	
AOC-12-3/1	09198-003	09/24/2013	17:17	1.98		7.89		2.33		8.82	
VTS_D1	08883-001	09/24/2013	17:29	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.99 **DCB 1** 7.90 **TCMX 2** 2.35 **DCB 2** 8.83

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	09198-003MSD	09/24/2013	17:53	1.98		7.89		2.33		8.82	
Pest	LCSS130923-11	09/24/2013	18:05	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 09/24/2013

Data file: V4613.D Tue Sep 24 09:44:02 2013

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	14266367	Endrin (1)	19199025	11.14	5.87
DDD	1240980	Endrin ketone	899773		
DDE	546959	Endrin aldehyde	297954		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	43983997	Endrin (2)	66718443	0.55	3.93
DDD	43769	Endrin ketone	2668567		
DDE	199164	Endrin aldehyde	58684		

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4629.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:25
Operator : IB
Sample : C-1_WAREHO,09196-001,Xs,30.59g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 14:32:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

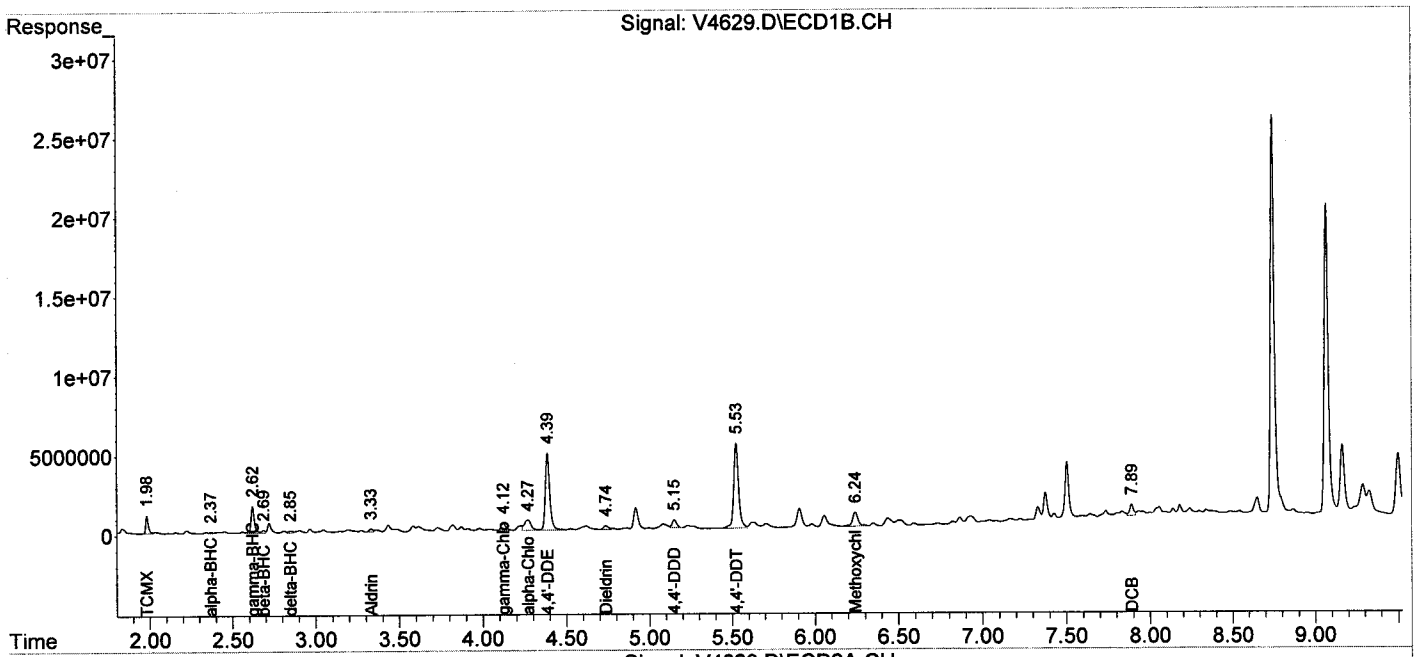
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	1.98	2.33	12918798	59930070	71.751	85.386
	Spiked Amount 200.000			Recovery	=	35.88%	42.69%
2) S	DCB	7.89	8.82	11842639	34801717	164.258m	202.026m
	Spiked Amount 200.000			Recovery	=	82.13%	101.01%
	Target Compounds						
3) T	alpha-BHC	2.37	2.86	1003939	3438395	2.791m	2.445m
4) T	beta-BHC	2.69	3.30	2357593	12290098	17.051	23.818m#
5) T	gamma-BHC (Linda	2.62	3.22	23937223	99257957	77.883	81.035m
6) T	delta-BHC	2.85	3.62	2401635	8546675	7.434m	7.070m
8) T	Aldrin	3.33	4.10	2990201	11798244	9.475m	9.761
11) T	4,4'-DDE	4.39	5.53	90915624	278.4E6	396.318	304.101
12) T	Dieldrin	4.74	5.74	5105492	15640120	17.797	16.096m
15) T	4,4'-DDD	5.15	6.37	9424304	29166976	41.698m	41.344
18) T	4,4'-DDT	5.53	6.82	110.3E6	313.3E6	569.533	581.857
20) T	Methoxychlor	6.24	7.57	21140685	65222976	227.365m	324.808m#
21) T	alpha-Chlordane	4.27	5.28	18331107	26837767	66.294	28.397 #
22) T	gamma-Chlordane	4.12	5.08	10122207	37755164	35.492	37.007
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

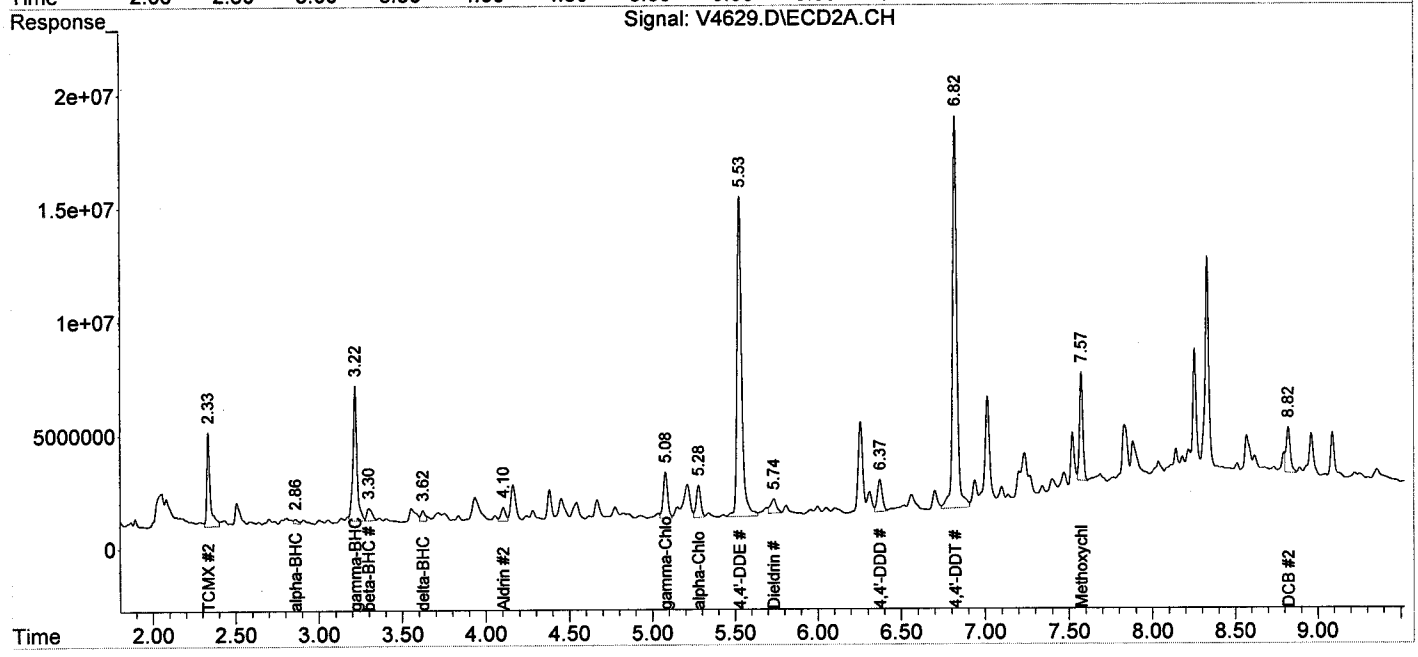
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4629.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:25
Operator : IB
Sample : C-1_WAREHO,09196-001,Xs,30.59g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 14:32:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4636.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:16
Operator : IB
Sample : C-1_WAREHO,09196-001DL,Xs,30.59g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 13:30:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

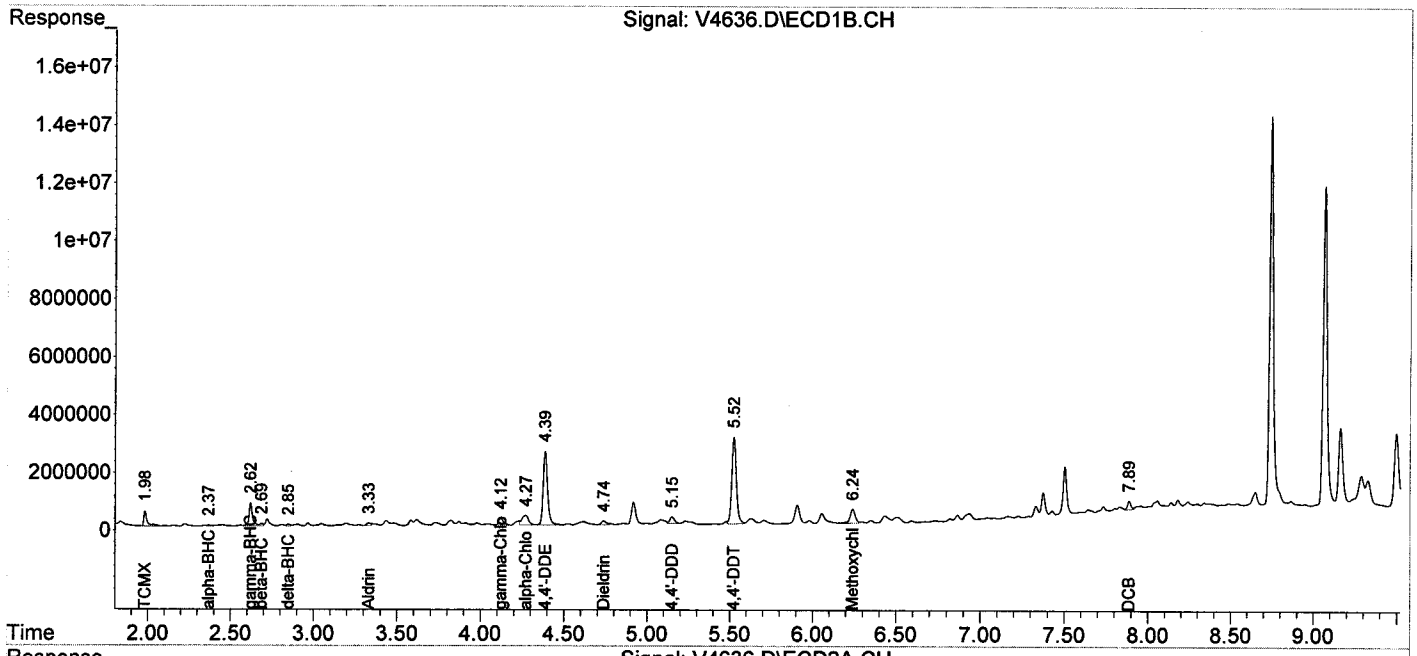
	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		1.98	2.33	7764530	31049899	43.124m	44.238
Spiked Amount		200.000			Recovery	=	21.56%	22.12%
2) S	DCB		7.89	8.82	4220724	15995377	58.542m	92.854m#
Spiked Amount		200.000			Recovery	=	29.27%	46.43%
	Target Compounds							
3) T	alpha-BHC		2.37	2.86	533406	1965044	1.483	1.398
4) T	beta-BHC		2.69	3.30	1194450	4894477	8.639	9.485m
5) T	gamma-BHC (Linda		2.62	3.22	11708813	51186997	38.096	41.789
6) T	delta-BHC		2.85	3.62	1088417	3825554	3.369m	3.165m
8) T	Aldrin		3.33	4.10	1699902	5680371	5.387	4.699
11) T	4,4'-DDE		4.39	5.53	47714161	153.0E6	207.995	167.116
12) T	Dieldrin		4.74	5.74	2725314	8456306	9.500	8.703m
15) T	4,4'-DDD		5.15	6.37	4550797	14062259	20.135m	19.933
18) T	4,4'-DDT		5.52	6.82	58075846	160.6E6	299.924m	298.262m
20) T	Methoxychlor		6.24	7.57	10517669	37075333	113.116	184.634m#
21) T	alpha-Chlordane		4.27	5.28	9496259	14521605	34.343	15.365 #
22) T	gamma-Chlordane		4.12	5.08	4956533	19944836	17.379	19.550
Sum	Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
Sum	Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

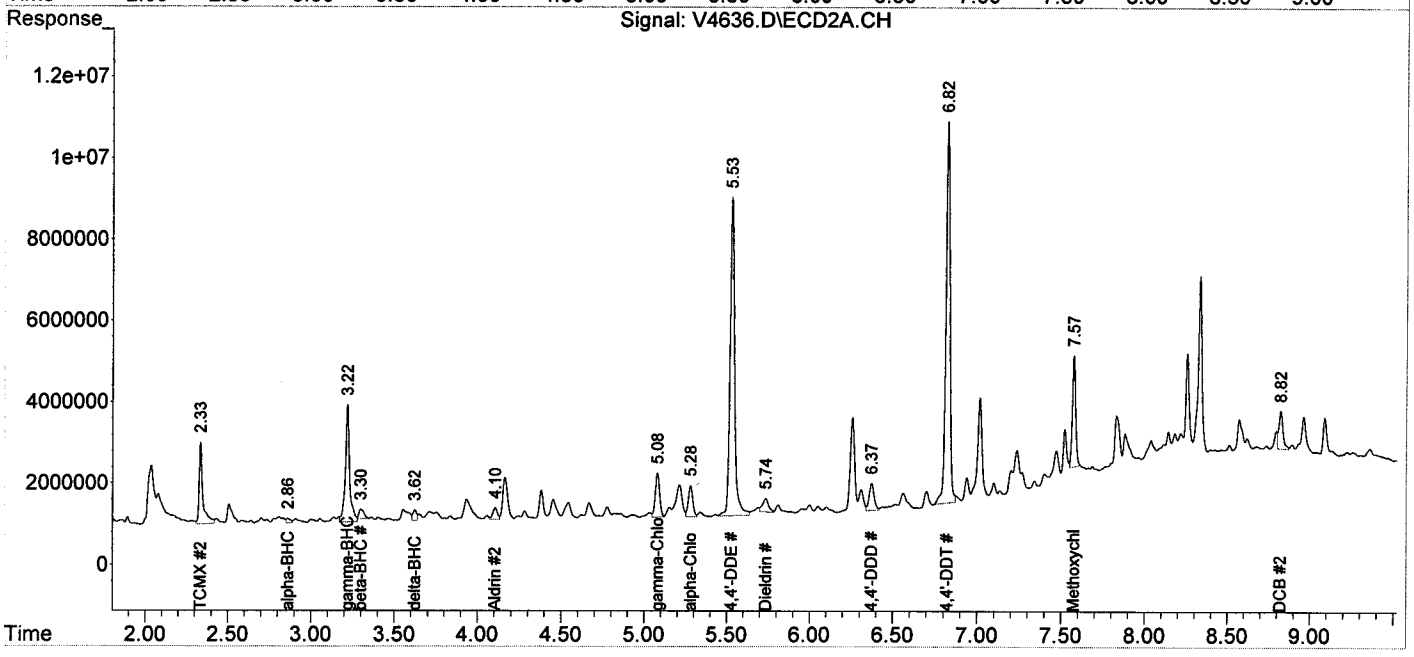
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4636.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:16
Operator : IB
Sample : C-1_WAREHO,09196-001DL,Xs,30.59g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 13:30:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4630.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:37
Operator : IB
Sample : C-2_LOAD_D,09196-002,Xs,30.30g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1 (Sig #1); 130923-11,09/17/13,09/18/13,5 (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 14:37:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		1.98	2.33	11944885	42617723	66.342	60.720
Spiked Amount		200.000			Recovery	=	33.17%	30.36%
2) S	DCB		7.89	8.82	12982861	30915044	180.073m	179.464m
Spiked Amount		200.000			Recovery	=	90.04%	89.73%
	Target Compounds							
3) T	alpha-BHC		2.37	2.86	1299428	3307097	3.612m	2.352m#
4) T	beta-BHC		2.69	3.31	1459450	6492007	10.555	12.581m
5) T	gamma-BHC (Linda		2.62	3.22	32776980	149.5E6	106.645	122.066
6) T	delta-BHC		2.85	3.63	2132397	7905024	6.600m	6.540m
8) T	Aldrin		3.33	4.11	2139933	8111487	6.781m	6.711
9) T	Heptachlor epoxi		3.99	4.83	6205320	24483503	22.104m	24.020m
11) T	4,4'-DDE		4.39	5.53	164.0E6	486.9E6	714.782	531.770 #
12) T	Dieldrin		4.74	5.74	10158110	29686985	35.409	30.552m
15) T	4,4'-DDD		5.15	6.38	13201163	43130663	58.408m	61.137
18) T	4,4'-DDT		5.53	6.83	182.8E6	480.1E6	944.086	891.715
20) T	Methoxychlor		6.25	7.58	40259914	138.6E6	432.989	690.174m#
21) T	alpha-Chlordane		4.27	5.28	27777936	57835052	100.459m	61.195 #
22) T	gamma-Chlordane		4.13	5.08	28790564	111.7E6	100.950	109.460
Sum	Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
Sum	Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

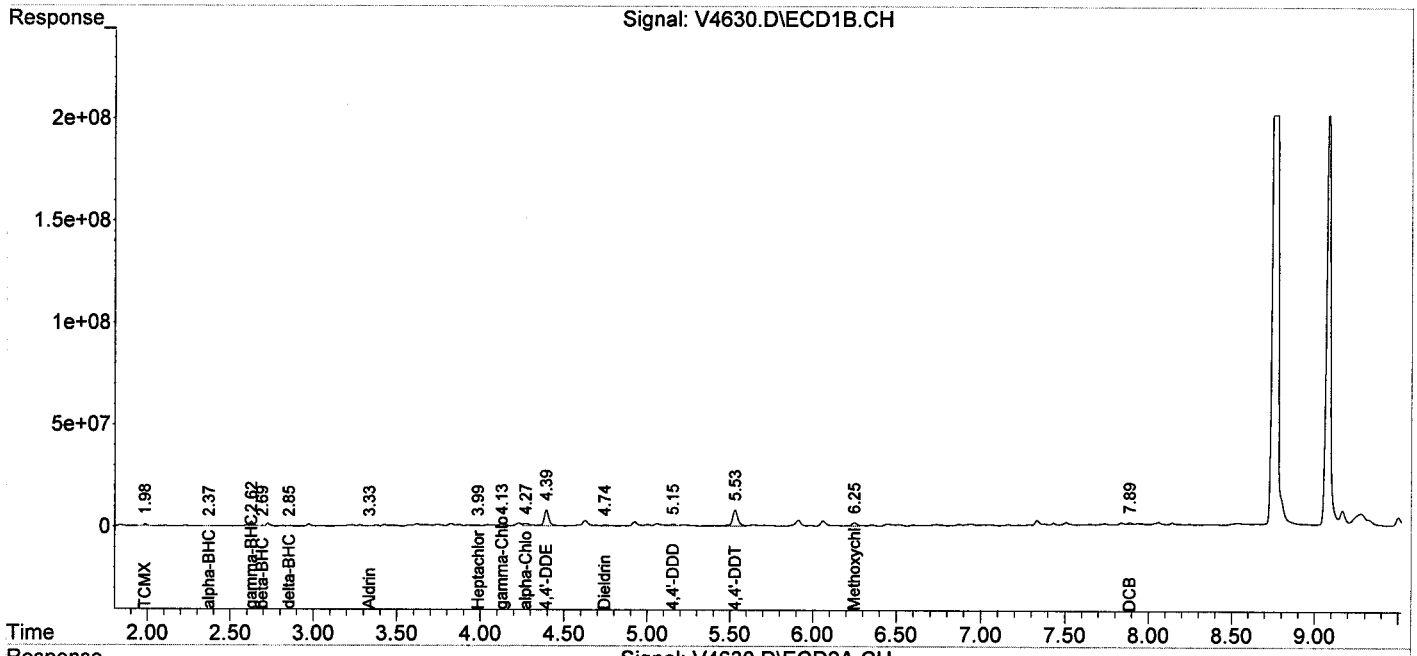
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

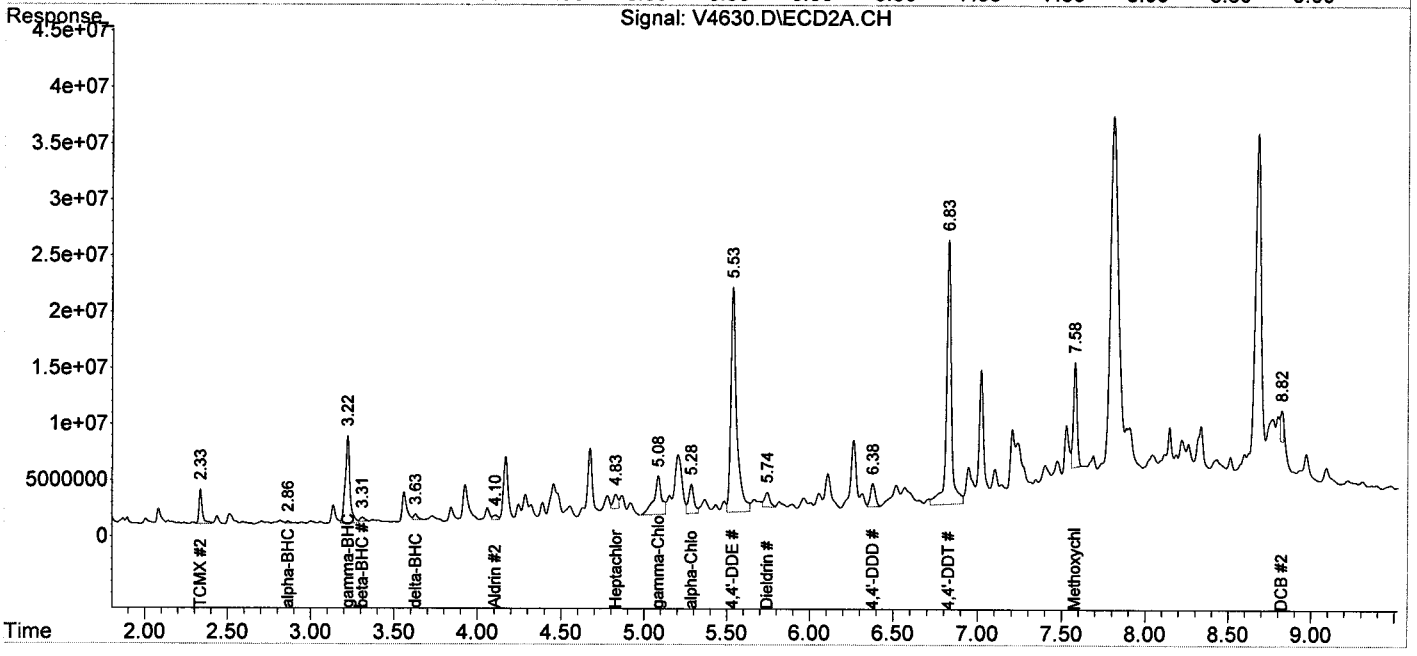
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4630.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:37
Operator : IB
Sample : C-2_LOAD_D,09196-002,Xs,30.30g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1 (Sig #1); 130923-11,09/17/13,09/18/13,5 (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 14:37:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4637.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:28
Operator : IB
Sample : C-2_LOAD_D,09196-002DL,Xs,30.30g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 13:32:40 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		1.98	2.33	2384724	9043399	13.245	12.885
Spiked Amount		200.000			Recovery	=	6.62%	6.44%
2) S	DCB		7.88	8.82	2405885	9543140	33.370m	55.399m#
Spiked Amount		200.000			Recovery	=	16.68%	27.70%
	Target Compounds							
5) T	gamma-BHC (Linda		2.62	3.22	6161193	27607670	20.046	22.539
6) T	delta-BHC		2.85	3.62	537727	2175494	1.664	1.800m
7) T	Heptachlor		3.05	3.72	642612	2092450	2.018m	1.712m
9) T	Heptachlor epoxi		3.98	4.82	1924648	6394886	6.856	6.274
11) T	4,4'-DDE		4.39	5.53	29819707	95665531	129.990	104.480
12) T	Dieldrin		4.74	5.74	1931794	5957001	6.734	6.131m
15) T	4,4'-DDD		5.15	6.37	1952471	6890165	8.639m	9.767m
18) T	4,4'-DDT		5.52	6.82	33669826	86956843	173.883	161.508
20) T	Methoxychlor		6.24	7.57	7381660	38912893	79.389m	193.785m#
21) T	alpha-Chlordane		4.26	5.28	7064115	11128242	25.547	11.775 #
22) T	gamma-Chlordane		4.12	5.08	4384312	12763618	15.373m	12.511m
Sum	Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
Sum	Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

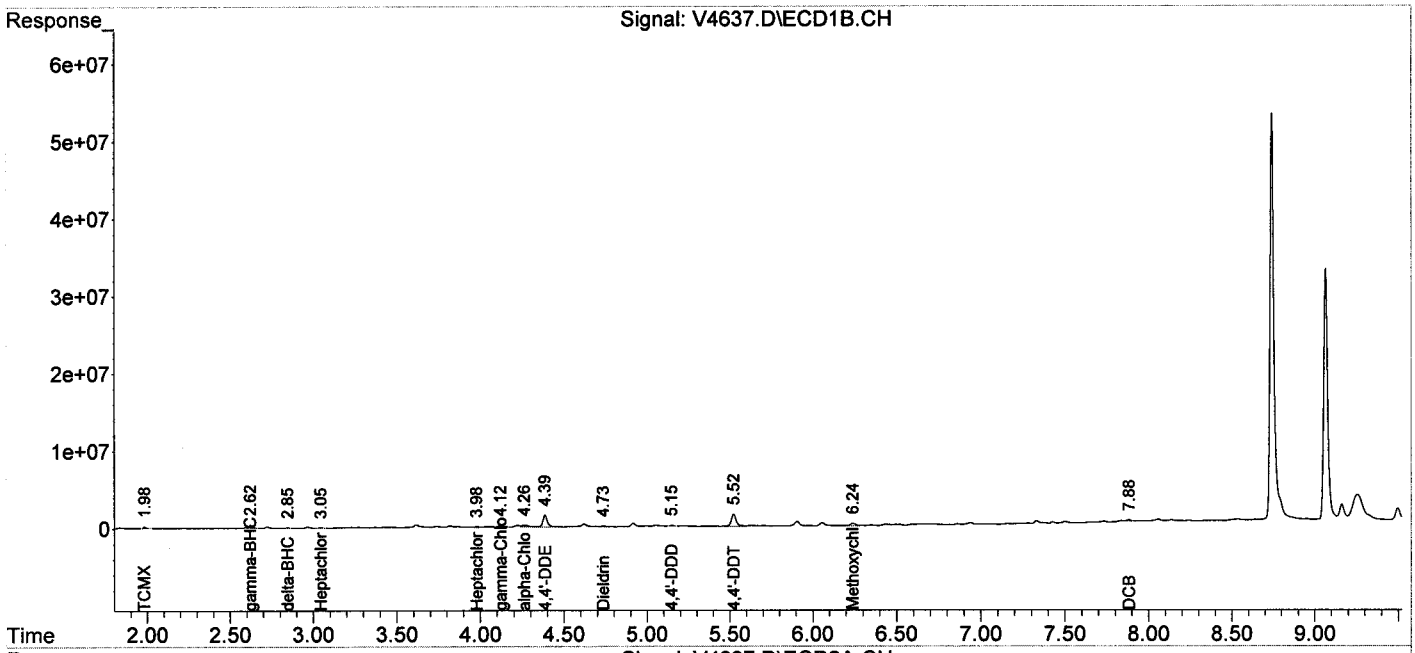
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

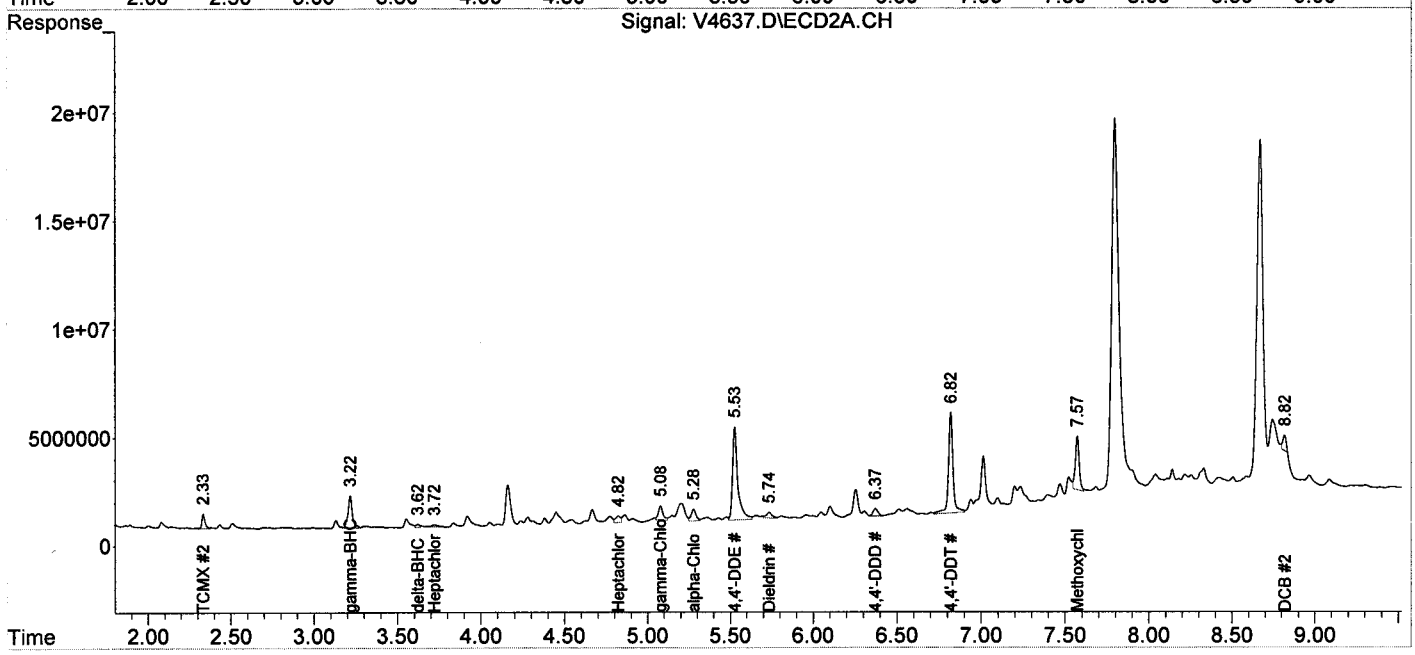
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4637.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:28
Operator : IB
Sample : C-2_LOAD_D,09196-002DL,Xs,30.30g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 13:32:40 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4631.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:49
Operator : IB
Sample : C-3_BLD_2,09196-003,Xs,30.69g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 14:42:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		1.98	2.33	11539028	55349752	64.088	78.860
	Spiked Amount	200.000			Recovery	=	32.04%	39.43%
2) S	DCB		7.89	8.82	13376270	49140083	185.530m	285.261m#
	Spiked Amount	200.000			Recovery	=	92.77%	142.63%
	Target Compounds							
5) T	gamma-BHC (Linda		2.62	3.22	4472935	14540247	14.553m	11.871m
9) T	Heptachlor epoxi		3.98	4.83	2865675	10665428	10.208m	10.464m
11) T	4,4'-DDE		4.39	5.53	75374021	191.7E6	328.570m	209.378 #
12) T	Dieldrin		4.75	5.74	7914823	20375735	27.589m	20.969m
15) T	4,4'-DDD		5.15	6.38	7957733	17331348	35.209m	24.567m#
18) T	4,4'-DDT		5.53	6.82	65279354	164.9E6	337.125	306.345m
20) T	Methoxychlor		6.25	7.57	11846777	32268087	127.410m	160.694m#
21) T	alpha-Chlordane		4.29	5.28	9047011	15331570	32.719m	16.222 #
22) T	gamma-Chlordane		4.12	5.08	4808526	19532093	16.860m	19.145
	Sum Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
	Sum Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

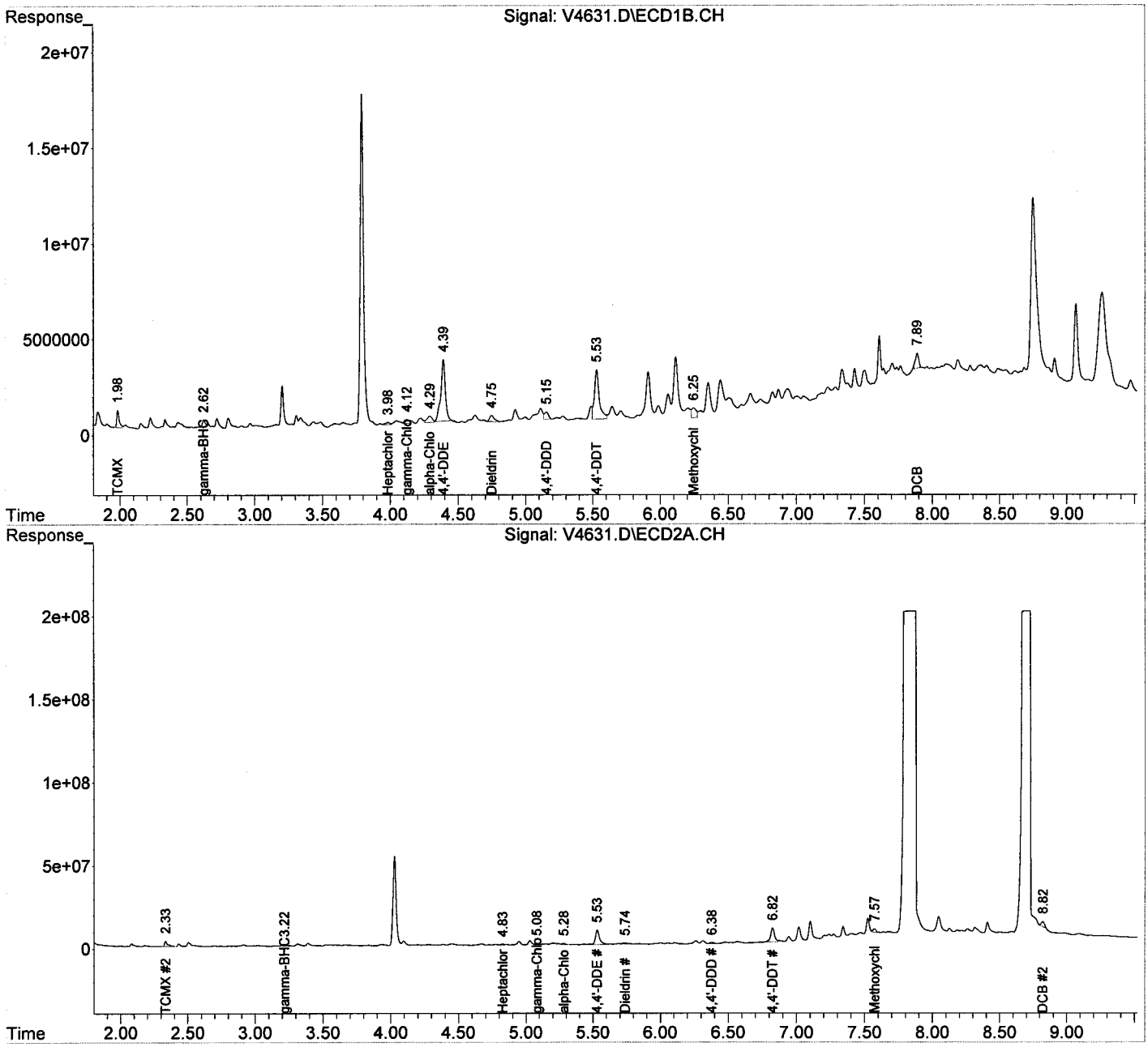
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4631.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:49
Operator : IB
Sample : C-3_BLD_2,09196-003,Xs,30.69g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 14:42:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4638.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:41
Operator : IB
Sample : C-3_BLD_2,09196-003DL,Xs,30.69g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 13:34:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		1.98	2.33	6421702	27965124	35.666m	39.843
Spiked Amount		200.000			Recovery	=	17.83%	19.92%
2) S	DCB		7.89	8.82	9111217	21113189	126.373m	122.563m
Spiked Amount		200.000			Recovery	=	63.19%	61.28%
	Target Compounds							
5) T	gamma-BHC (Linda		2.62	3.21	3196122	13913216	10.399	11.359m
9) T	Heptachlor epoxi		3.98	4.82	1093378	3327452	3.895m	3.265m
11) T	4,4'-DDE		4.39	5.53	38217804	102.2E6	166.599m	111.589 #
15) T	4,4'-DDD		5.15	6.37	3781392	10173375	16.731m	14.421m
18) T	4,4'-DDT		5.52	6.82	30513020	88785612	157.580	164.905m
20) T	Methoxychlor		6.24	7.57	5000374	24357004	53.778m	121.297m#
21) T	alpha-Chlordane		4.28	5.28	4483479	9381706	16.215m	9.927 #
22) T	gamma-Chlordane		4.12	5.08	2890308	11027291	10.134m	10.809
Sum	Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
Sum	Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

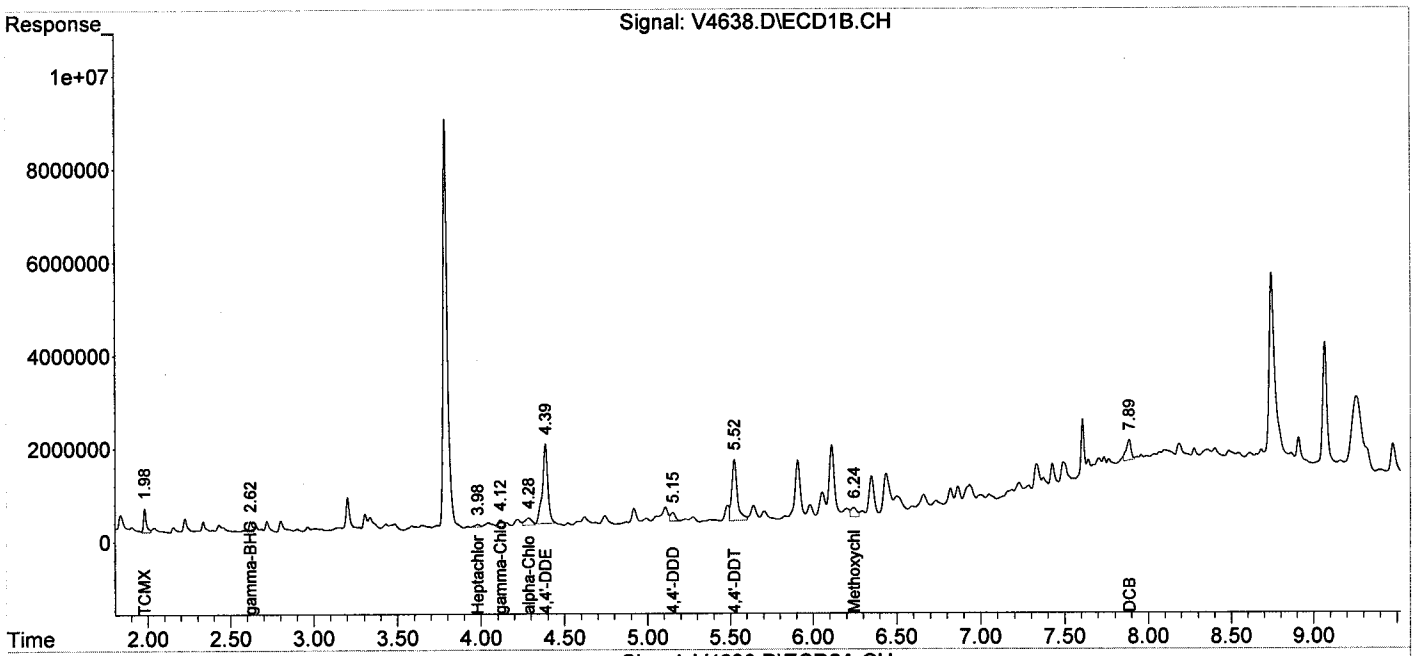
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

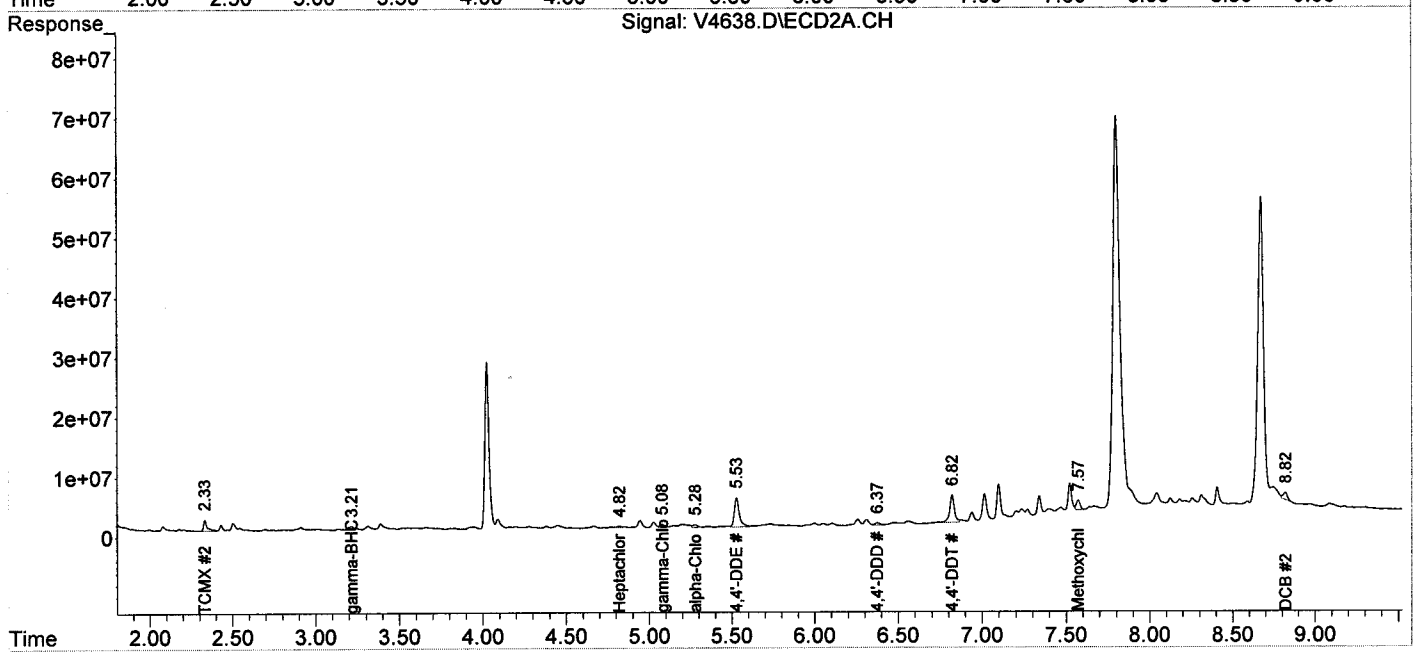
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4638.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:41
Operator : IB
Sample : C-3_BLD_2,09196-003DL,Xs,30.69g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,2
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 13:34:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4632.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 14:01
Operator : IB
Sample : C-4_IMP._M,09196-004,Xs,30.24g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,20
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:36:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

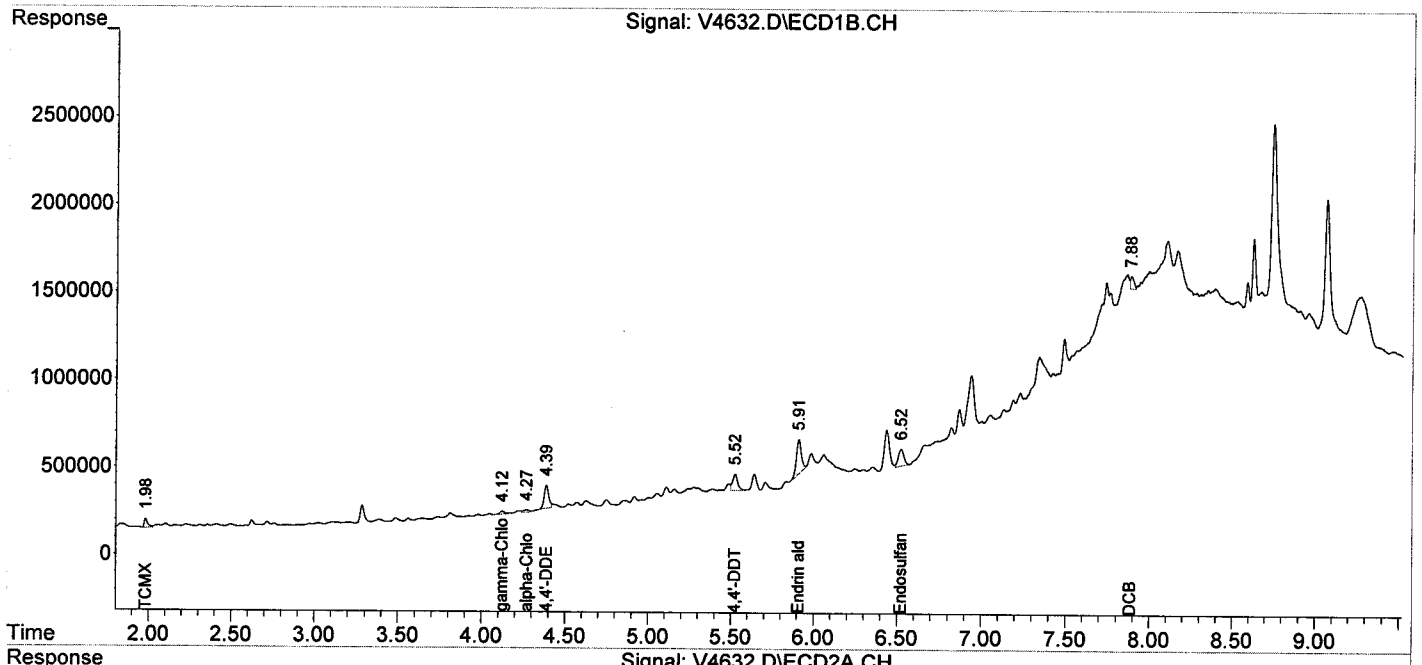
	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		1.98	2.33	699458	2876469	3.885	4.098m
Spiked Amount		200.000			Recovery	=	1.94%	2.05%
2) S	DCB		7.88	8.82	1006739	18776401	13.964m	108.998m#
Spiked Amount		200.000			Recovery	=	6.98%	54.50%
	Target Compounds							
11) T	4,4'-DDE		4.39	5.53	2486551	8656705	10.839m	9.454
16) T	Endrin aldehyde		5.91	6.94	4027971	8591943	20.793m	15.801m
17) T	Endosulfan sulfa		6.52	7.27	2222391	5477418	10.311m	9.389m
18) T	4,4'-DDT		5.52	6.82	1950916	6164472	10.075m	11.450m
21) T	alpha-Chlordane		4.27	5.28	349871	1260302	1.265	1.334m
22) T	gamma-Chlordane		4.12	5.08	380850	1509054	1.335	1.479m
Sum	Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
Sum	Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

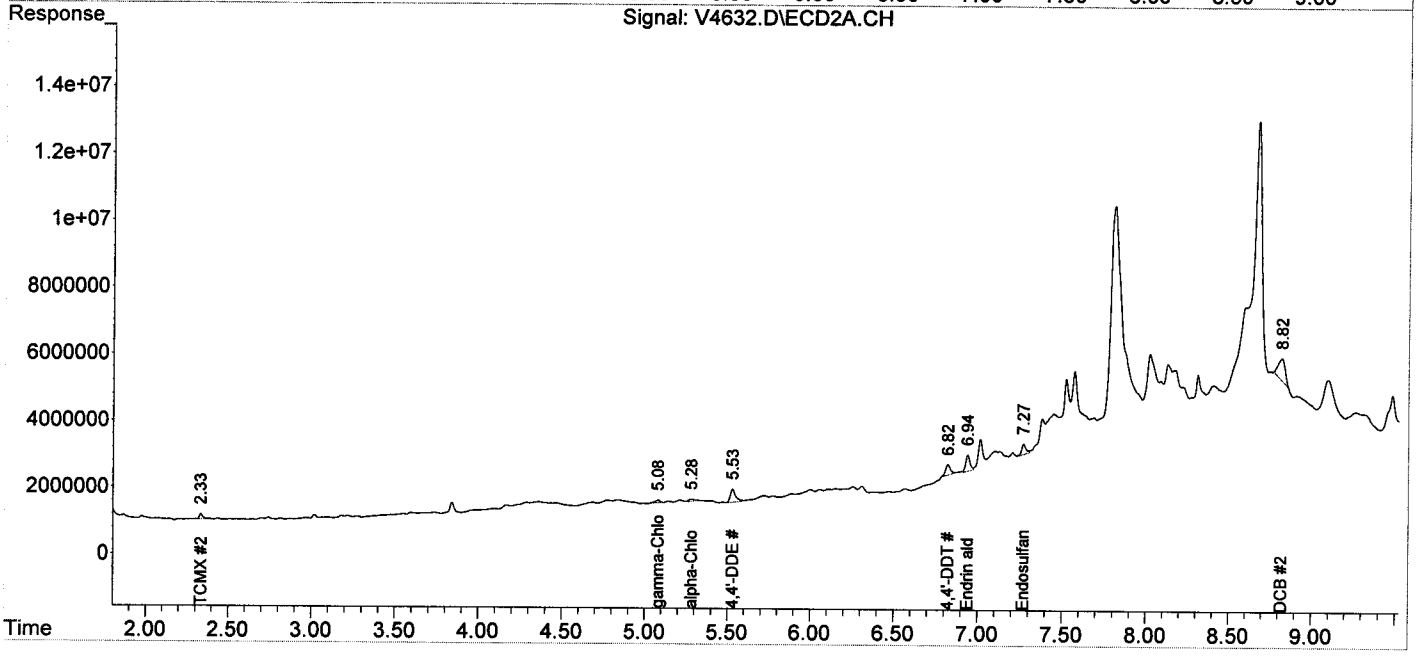
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4632.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 14:01
Operator : IB
Sample : C-4_IMP._M,09196-004,Xs,30.24g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,20
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:36:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4633.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 14:13
Operator : IB
Sample : C-5_SPHINX,09196-005,Xs,30.22g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:35:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		1.98	2.33	14566304	48498013	80.901	69.098m
Spiked Amount		200.000			Recovery	=	40.45%	34.55%
2) S	DCB		7.89	8.82	21035568	74063645	291.765m	429.944m#
Spiked Amount		200.000			Recovery	=	145.88%	214.97%
	Target Compounds							
11) T	4,4'-DDE		4.39	5.53	203.6E6	644.1E6	887.720	703.459
15) T	4,4'-DDD		5.16	6.38	9483698	30234421	41.961m	42.857
18) T	4,4'-DDT		5.53	6.83	121.3E6	355.0E6	626.377	659.394
Sum	Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
Sum	Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

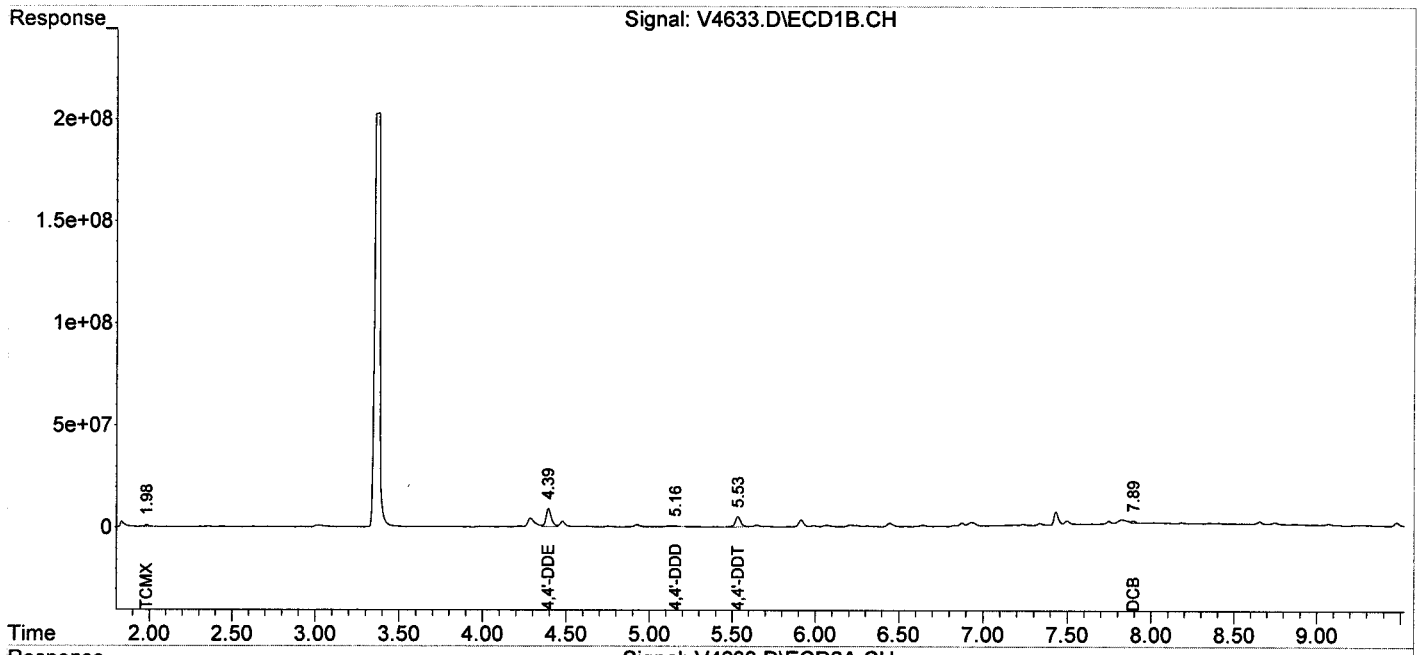
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

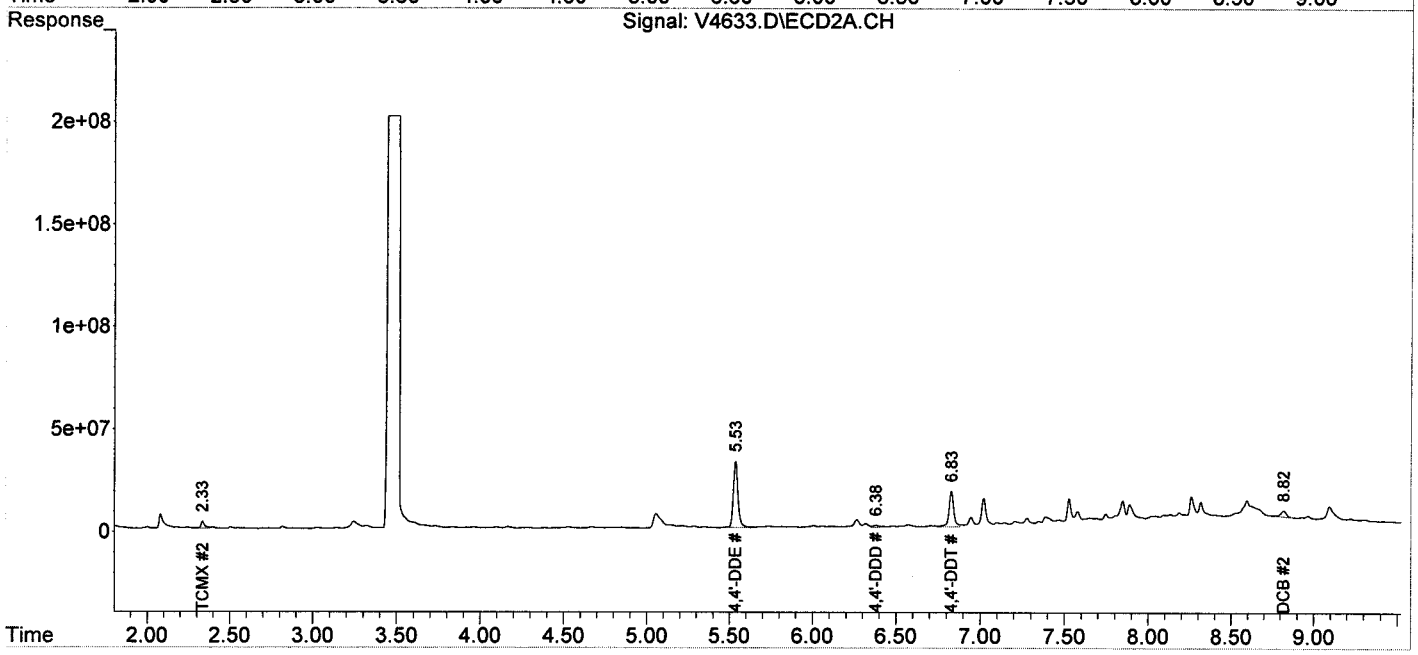
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4633.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 14:13
Operator : IB
Sample : C-5_SPHINX,09196-005,Xs,30.22g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:35:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4639.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:53
Operator : IB
Sample : C-5_SPHINX,09196-005DL,Xs,30.22g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:33:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		1.98	2.33	3002611	10203907	16.677	14.538
Spiked Amount		200.000			Recovery	=	8.34%	7.27%
2) S	DCB		7.89	8.81	2398702	30377257	33.270m	176.342m#
Spiked Amount		200.000			Recovery	=	16.64%	88.17%
	Target Compounds							
11) T	4,4'-DDE		4.38	5.53	35443263	127.2E6	154.504m	138.884
15) T	4,4'-DDD		5.15	6.37	2034745	5143280	9.003m	7.291
18) T	4,4'-DDT		5.52	6.82	21172118	55751045	109.340	103.549m
Sum	Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
Sum	Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

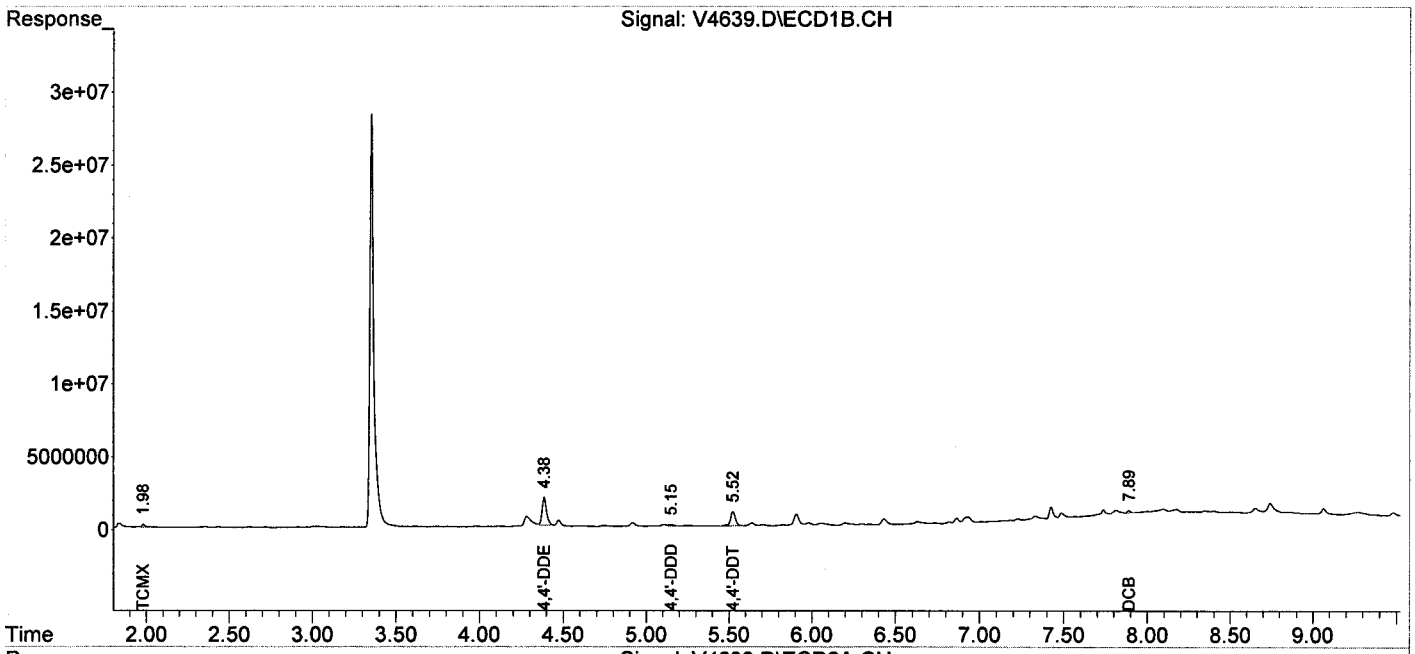
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

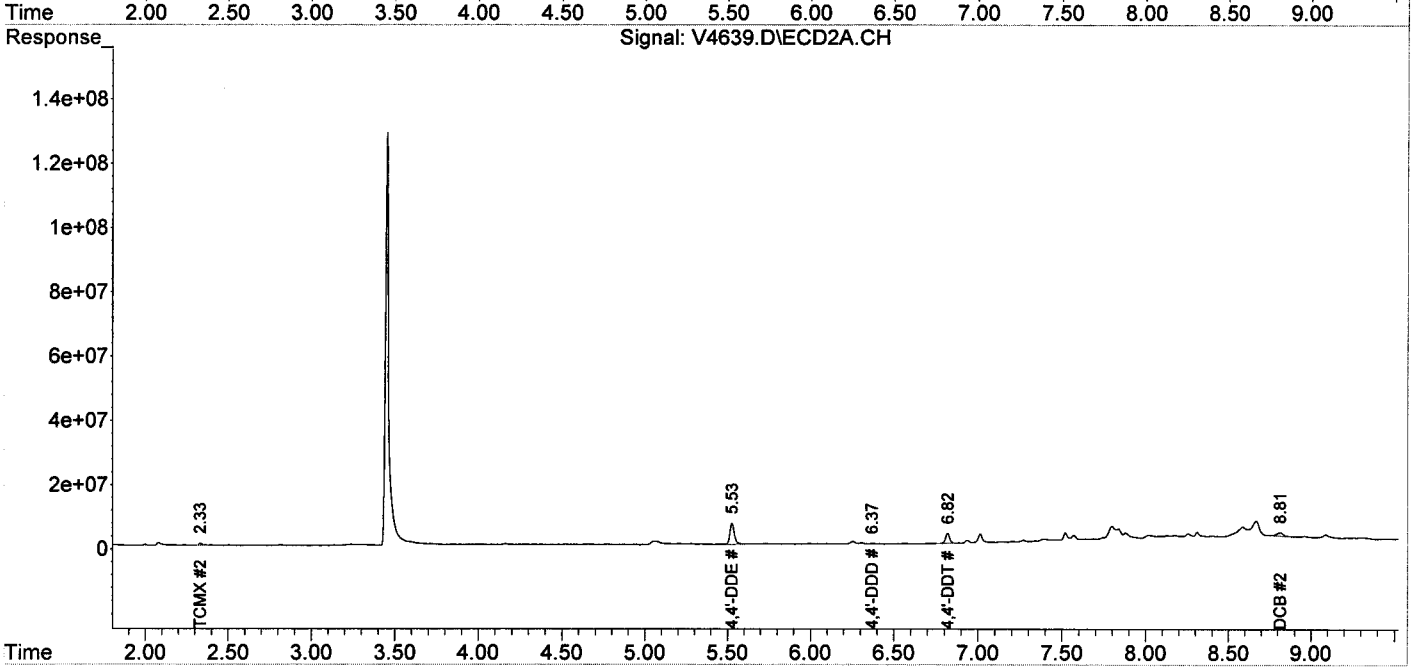
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4639.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 15:53
Operator : IB
Sample : C-5_SPHINX,09196-005DL,Xs,30.22g,0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:33:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS130923-11
Client ID: Pest
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4621.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000334	0.000167
beta-BHC	ND		0.000334	0.000167
gamma-BHC (Lindane)	ND		0.000334	0.000167
delta-BHC	ND		0.000334	0.000167
Heptachlor	ND		0.000334	0.000167
Aldrin	ND		0.000334	0.000167
Heptachlor epoxide	ND		0.000334	0.000167
Endosulfan I	ND		0.000334	0.000167
4,4'-DDE	ND		0.000334	0.000167
Dieldrin	ND		0.000334	0.000167
Endrin	ND		0.000334	0.000167
Endosulfan II	ND		0.000334	0.000167
4,4'-DDD	ND		0.000334	0.000167
Endrin aldehyde	ND		0.000334	0.000167
Endosulfan sulfate	ND		0.000334	0.000167
4,4'-DDT	ND		0.000334	0.000167
Endrin ketone	ND		0.000334	0.000167
Methoxychlor	ND		0.000334	0.000167
alpha-Chlordane	ND		0.000334	0.000167
gamma-Chlordane	ND		0.000334	0.000167
Toxaphene	ND		0.00418	0.002
Endosulfan (I and II)	ND		0.000334	0.000167
Chlordane (alpha and gamma)	ND		0.000334	0.000167

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4621.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 11:49
Operator : IB
Sample : Pest,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 13:46:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

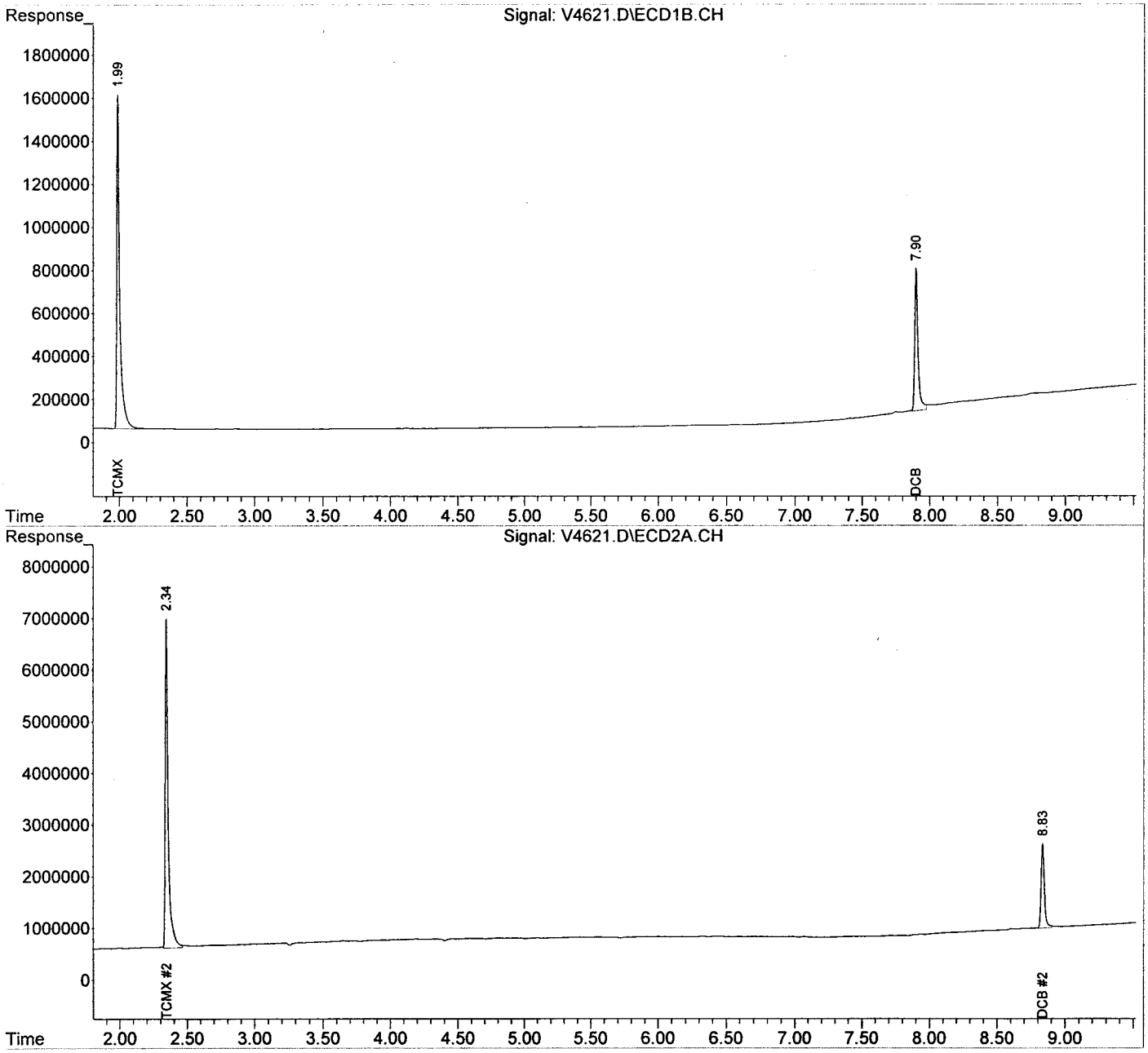
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.99	2.35	23680371	96331302	131.521	137.248
Spiked Amount 200.000			Recovery	=	65.76%	68.62%
2) S DCB	7.90	8.83	11432546	27328357	158.570	158.643
Spiked Amount 200.000			Recovery	=	79.28%	79.32%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4621.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 11:49
Operator : IB
Sample : Pest,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 13:46:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



HERBICIDE DATA

HERBICIDE QC SUMMARY

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/30/2013

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKS130926-05	SOIL	86		85	
Herb	LCSS130926-05	SOIL	69		93	
AOC-12-3/1	09198-003	SOIL	40		50	
Herb	09198-003MS	SOIL	48		55	
Herb	09198-003MSD	SOIL	52		49	
C-1_WAREHO	09196-001	SOLID	98		54	
C-2_LOAD_D	09196-002	SOLID	268	M	56	
C-3_BLD_2	09196-003	SOLID	124		54	
C-4_IMP._M	09196-004	SOLID	182	M	48	
AOC-7-2/11	09197-004	SOIL	34		39	
AOC-7-3/9.	09197-005	SOIL	47		52	
AOC-8/12.5	09197-007	SOIL	91		99	
AOC-12-2/3	09197-009	SOIL	77		65	
AOC-6/18.5	09197-010	SOIL	67		65	
C-5_SPHINX	09196-005	SOLID	0	D	0	D
C-5_SPHINX	09196-005DL	SOLID	0	D	0	D

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130926-05
Date Received: NA
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0323.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
Dalapon	200.0	0.00	171.44	86
Dicamba	200.0	0.00	145.06	73
2,4-D	200.0	0.00	93.54	47
2,4,5-TP (Silvex)	200.0	0.00	165.32	83
2,4,5-T	200.0	0.00	148.41	74
2,4-DB	200.0	0.00	217.18	109
Dinoseb	200.0	0.00	118.12	59

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09198-003
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
MS Data file: W0326.D
MSD Data file: W0327.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.18g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
Dalapon	200.00	0.00	61.64	31		69.91	35	13
Dicamba	200.00	0.00	71.47	36		81.61	41	13
2,4-D	200.00	0.00	63.10	32		75.09	38	17
2,4,5-TP (Silvex)	200.00	0.00	67.96	34		81.25	41	18
2,4,5-T	200.00	0.00	60.24	30		59.84	30	1
2,4-DB	200.00	0.00	111.57	56		126.23	63	12
Dinoseb	200.00	0.00	63.53	32		68.72	34	8

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

HERBICIDE METHOD BLANK SUMMARY

Lab File ID: W0323.D

Instrument ID: GC-W

Date Extracted: 09/26/2013

Matrix: SOIL

Date Analyzed: 09/30/2013

Time Analyzed: 09:43

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Herb	LCSS130926-05	09/30/2013	09:57
AOC-12-3/1	09198-003	09/30/2013	10:11
Herb	09198-003MS	09/30/2013	10:25
Herb	09198-003MSD	09/30/2013	10:39
C-1_WAREHO	09196-001	09/30/2013	10:53
C-2_LOAD_D	09196-002	09/30/2013	11:07
C-3_BLD_2	09196-003	09/30/2013	11:21
C-4_IMP._M	09196-004	09/30/2013	11:35
AOC-7-2/11	09197-004	09/30/2013	12:31
AOC-7-3/9.	09197-005	09/30/2013	12:45
AOC-8/12.5	09197-007	09/30/2013	12:59
AOC-12-2/3	09197-009	09/30/2013	13:14
AOC-6/18.5	09197-010	09/30/2013	13:28
C-5_SPHINX	09196-005	09/30/2013	13:42
C-5_SPHINX	09196-005DL	09/30/2013	13:58

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 09/19/2013

Instrument ID: GC-W

GC Column (1st): RTX-CLP1

Data File: W0294.D W0293.D W0292.D W0291.D W0290.D

Compound	RT OF STANDARDS					MEAN RT	RT WI NDOW FROM	RT WI NDOW TO
	50	100	200	250	400			
Dalapon	2.21	2.21	2.21	2.21	2.21	2.21	2.14	2.28
Dicamba	4.82	4.82	4.82	4.82	4.82	4.82	4.75	4.89
2,4-D	5.29	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.70	5.70	5.70	5.70	5.61	5.79
2,4,5-T	5.87	5.87	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.17	6.17	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.89	6.89	6.89	6.89	6.89	6.89	6.80	6.98

GC Column (2nd): RTX-CLP2

Data File: W0294.C W0293.C W0292.C W0291.C W0290.C

Compound	RT OF STANDARDS					MEAN RT	RT WI NDOW FROM	RT WI NDOW TO
	50	100	200	250	400			
Dalapon	2.17	2.17	2.18	2.18	2.18	2.18	2.11	2.25
Dicamba	5.02	5.02	5.02	5.02	5.02	5.02	4.95	5.09
2,4-D	5.54	5.53	5.53	5.53	5.53	5.53	5.45	5.61
2,4,5-TP (Silvex)	5.99	5.99	5.98	5.98	5.98	5.98	5.89	6.07
2,4,5-T	6.22	6.22	6.22	6.21	6.21	6.22	6.13	6.31
2,4-DB	6.56	6.56	6.55	6.55	6.55	6.55	6.46	6.64
Dinoseb	6.79	6.79	6.79	6.79	6.79	6.79	6.70	6.88

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 09/19/2013 **Instrument ID:** GC-W

GC Column (1st): RTX-CLP1

Data File: W0294.D W0293.D W0292.D W0291.D W0290.D

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	667410	660186	644212	791023	664098	685386	8.71
Dicamba	1730473	1710168	1671681	2107998	1810946	1806253	9.75
2,4-D	765989	693648	669959	743691	634457	701549	7.64
Silvex	2670698	2673622	2647711	3376779	2461358	2766033	12.75
2,4,5-T	2875063	2774216	2669047	3296605	2338229	2790632	12.45
2,4-DB	524870	509783	460705	538972	496935	506253	5.92
Dinoseb	2168991	2000882	1927554	2415395	2011712	2104907	9.24

GC Column (2nd): RTX-CLP2

Data File: W0294.C W0293.C W0292.C W0291.C W0290.C

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	87415	87751	88934	114231	99195	95505	12.09
Dicamba	243882	244363	221794	277287	239037	245273	8.20
2,4-D	74904	76134	69691	84328	70649	75141	7.74
Silvex	365852	377006	363589	451341	382642	388086	9.33
2,4,5-T	342958	353202	339329	418880	354965	361867	9.00
2,4-DB	45387	47160	41110	52013	43943	45922	8.84
Dinoseb	223573	232962	226434	292018	248969	244791	11.51

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/30/2013 **Instrument ID:** GC-W

Data File: W0322.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	623178	9.08
Dicamba	4.82	4.75	4.89	1806253	1646555	8.84
2,4-D	5.28	5.20	5.36	701549	646166	7.89
Silvex	5.70	5.61	5.79	2766033	2419834	12.52
2,4,5-T	5.86	5.77	5.95	2790632	2452165	12.13
2,4-DB	6.16	6.07	6.25	506253	488924	3.42
Dinoseb	6.89	6.80	6.98	2104907	2001846	4.90

GC Column (2nd): RTX-CLP2

Data File: W0322.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.18	2.11	2.25	95505	95252	0.26
Dicamba	5.02	4.95	5.09	245273	247939	1.09
2,4-D	5.53	5.45	5.61	75141	80775	7.50
Silvex	5.99	5.89	6.07	388086	419419	8.07
2,4,5-T	6.22	6.13	6.31	361867	391826	8.28
2,4-DB	6.56	6.46	6.64	45922	49921	8.71
Dinoseb	6.79	6.70	6.88	244791	261550	6.85

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/30/2013 **Instrument ID:** GC-W

Data File: W0340.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	656262	4.25
Dicamba	4.82	4.75	4.89	1806253	1751402	3.04
2,4-D	5.28	5.20	5.36	701549	720174	2.65
Silvex	5.70	5.61	5.79	2766033	2873327	3.88
2,4,5-T	5.86	5.77	5.95	2790632	2942189	5.43
2,4-DB	6.16	6.07	6.25	506253	462414	8.66
Dinoseb	6.89	6.80	6.98	2104907	2407735	14.39

GC Column (2nd): RTX-CLP2

Data File: W0340.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.17	2.11	2.25	95505	89690	6.09
Dicamba	5.02	4.95	5.09	245273	230413	6.06
2,4-D	5.53	5.45	5.61	75141	76034	1.19
Silvex	5.98	5.89	6.07	388086	387473	0.16
2,4,5-T	6.22	6.13	6.31	361867	367731	1.62
2,4-DB	6.55	6.46	6.64	45922	48945	6.58
Dinoseb	6.79	6.70	6.88	244791	263943	7.82

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.93

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKS130926-05	09/30/2013	09:43	4.74		4.93	
Herb	LCSS130926-05	09/30/2013	09:57	4.73		4.92	
AOC-12-3/1	09198-003	09/30/2013	10:11	4.73		4.92	
Herb	09198-003MS	09/30/2013	10:25	4.73		4.92	
Herb	09198-003MSD	09/30/2013	10:39	4.73		4.92	
C-1_WAREHO	09196-001	09/30/2013	10:53	4.73		4.92	
C-2_LOAD_D	09196-002	09/30/2013	11:07	4.72		4.92	
C-3_BLD_2	09196-003	09/30/2013	11:21	4.73		4.92	
C-4_IMP._M	09196-004	09/30/2013	11:35	4.72		4.92	
AOC-7-2/11	09197-004	09/30/2013	12:31	4.73		4.92	
AOC-7-3/9.	09197-005	09/30/2013	12:45	4.73		4.92	
AOC-8/12.5	09197-007	09/30/2013	12:59	4.73		4.92	
AOC-12-2/3	09197-009	09/30/2013	13:14	4.73		4.92	
AOC-6/18.5	09197-010	09/30/2013	13:28	4.73		4.92	
C-5_SPHINX	09196-005	09/30/2013	13:42	0.00	D	0.00	D
C-5_SPHINX	09196-005DL	09/30/2013	13:58	0.00	D	0.00	D

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0328.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 10:53
Operator : JS
Sample : C-1_WAREHO,09196-001,Xs,15.46g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:22:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.73	4.92	193.8E6	14299934	97.660	54.009 #
	Spiked Amount 100.000			Recovery	=	97.66%	54.01%
	Target Compounds						
7) T	2,4-D	5.27	5.52	223.0E6	28492027	317.924	379.180
9) T	2,4,5-T	5.85	6.21	928.6E6	110.5E6	332.755	305.485

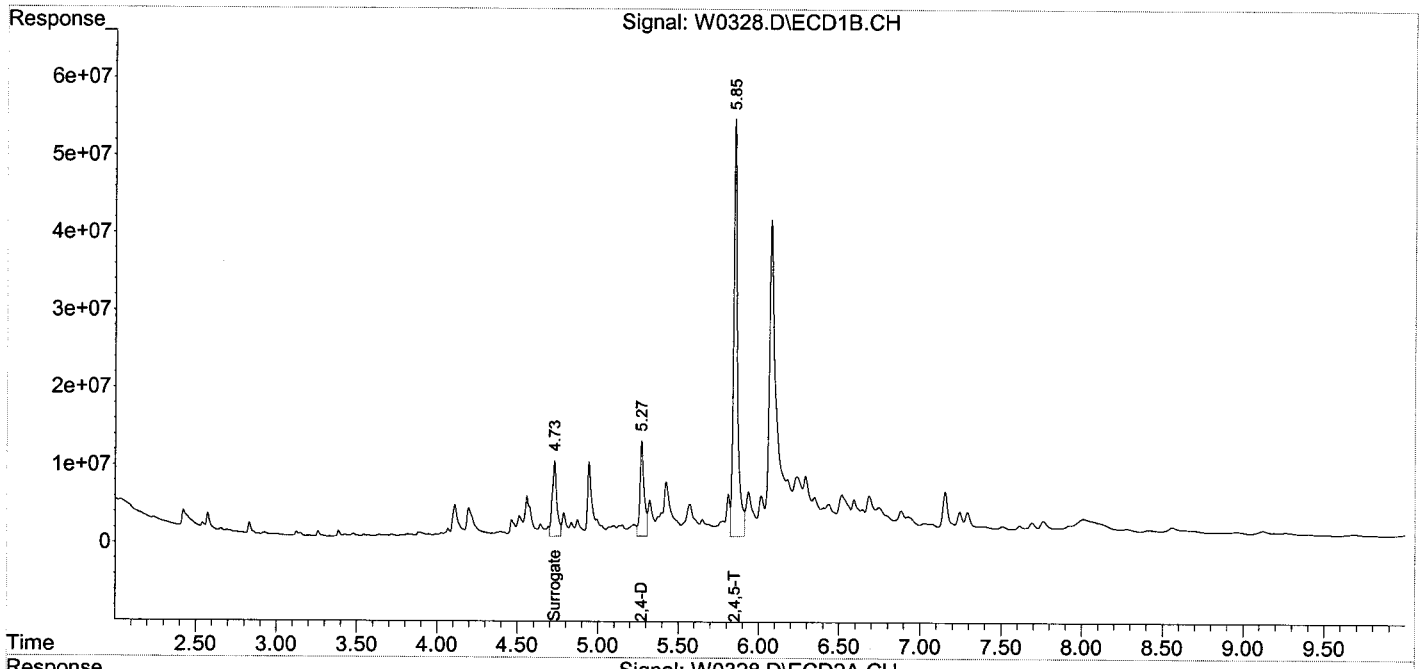
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

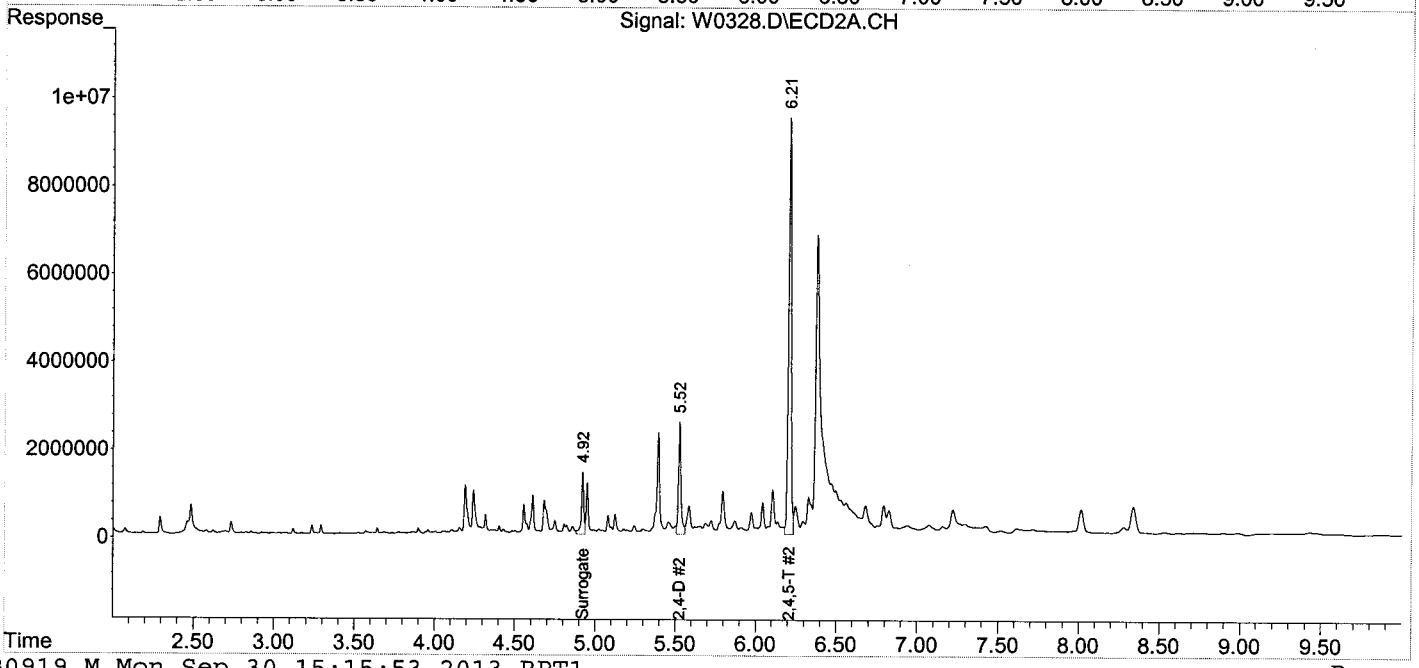
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0328.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 10:53
Operator : JS
Sample : C-1_WAREHO,09196-001,Xs,15.46g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:22:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0329.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 11:07
Operator : JS
Sample : C-2_LOAD_D,09196-002,Xs,15.49g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:27:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.72	4.92	532.1E6	14704850	268.185	55.538 #
	Spiked Amount 100.000			Recovery	=	268.19%	55.54%
	Target Compounds						
7) T	2,4-D	5.27	5.52	103.3E6	12362925	147.263m	164.529m
9) T	2,4,5-T	5.85	6.21	336.0E6	41549791	120.404m	114.821
11) T	Dinoseb	6.88	6.79	97595224	11700532	46.366m	47.798m

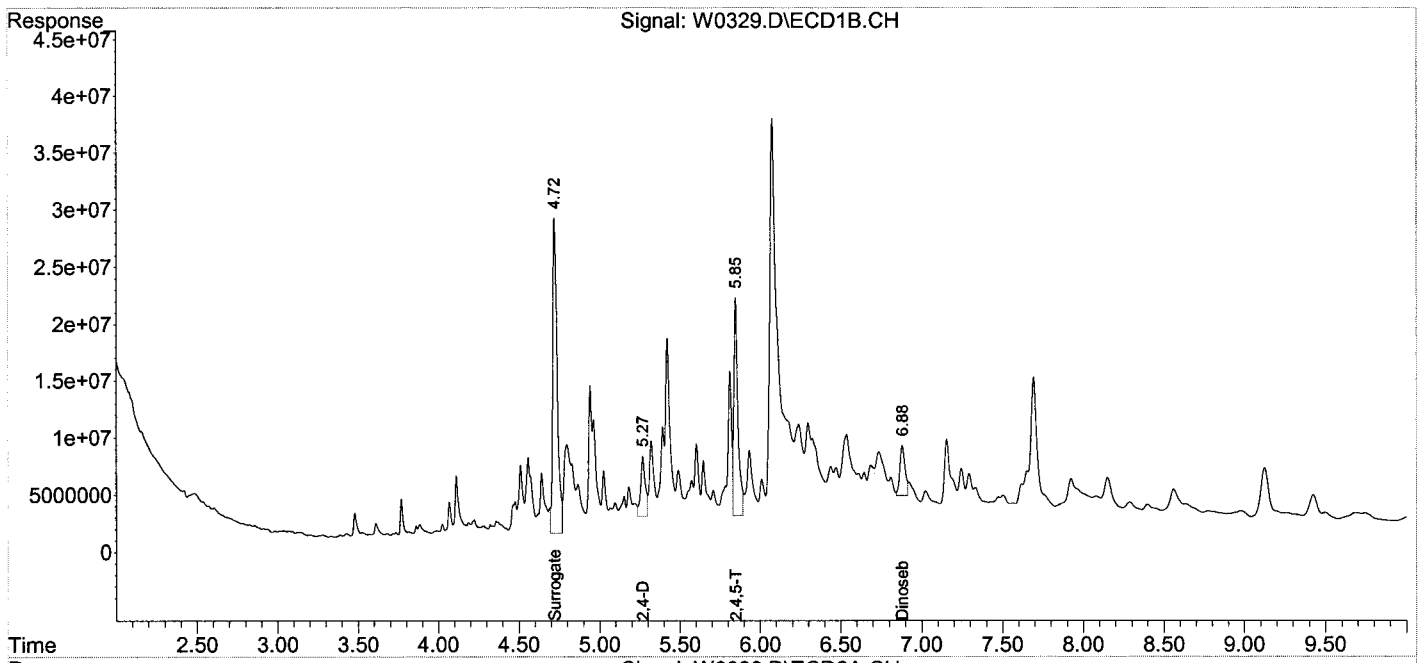
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

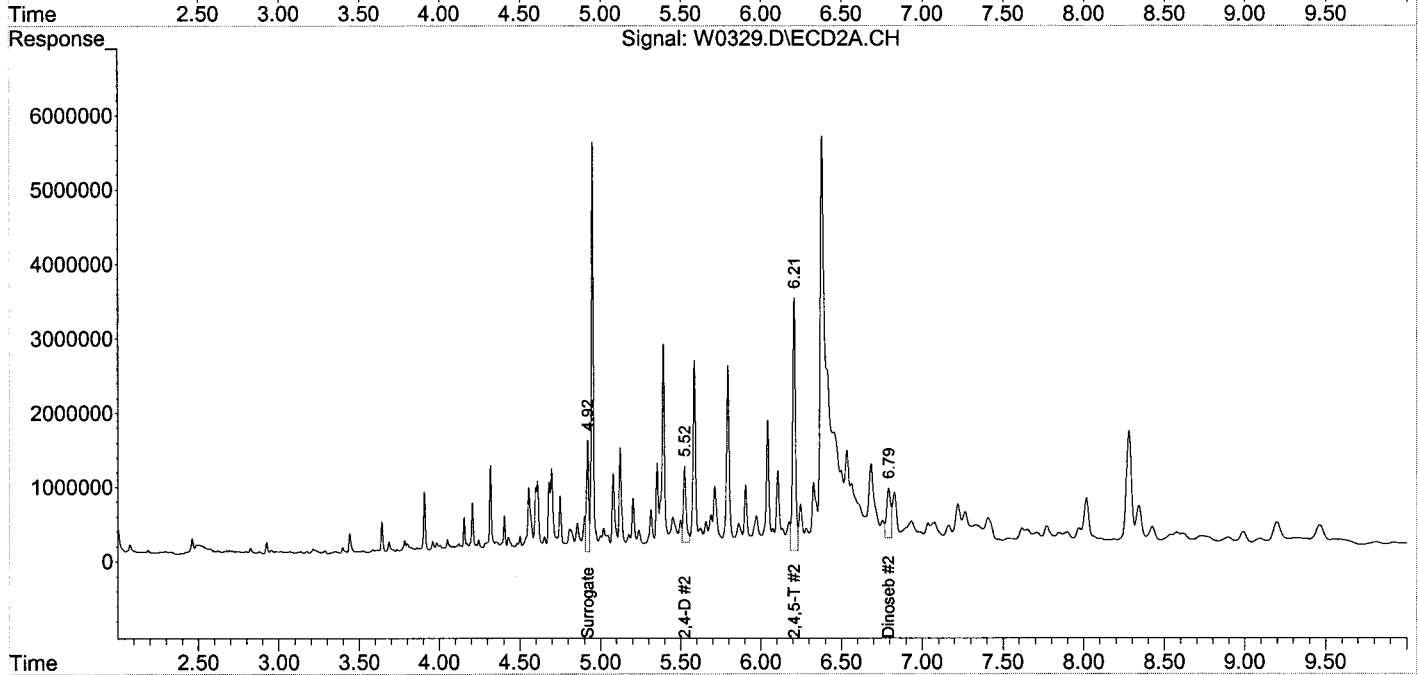
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0329.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 11:07
Operator : JS
Sample : C-2_LOAD_D,09196-002,Xs,15.49g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:27:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0330.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 11:21
Operator : JS
Sample : C-3_BLD_2,09196-003,Xs,15.31g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:29:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.73	4.92	246.3E6	14213147	124.141	53.681 #
	Spiked Amount 100.000			Recovery	=	124.14%	53.68%
	Target Compounds						
7) T	2,4-D	5.27	5.52	104.0E6	12202968	148.238m	162.400m

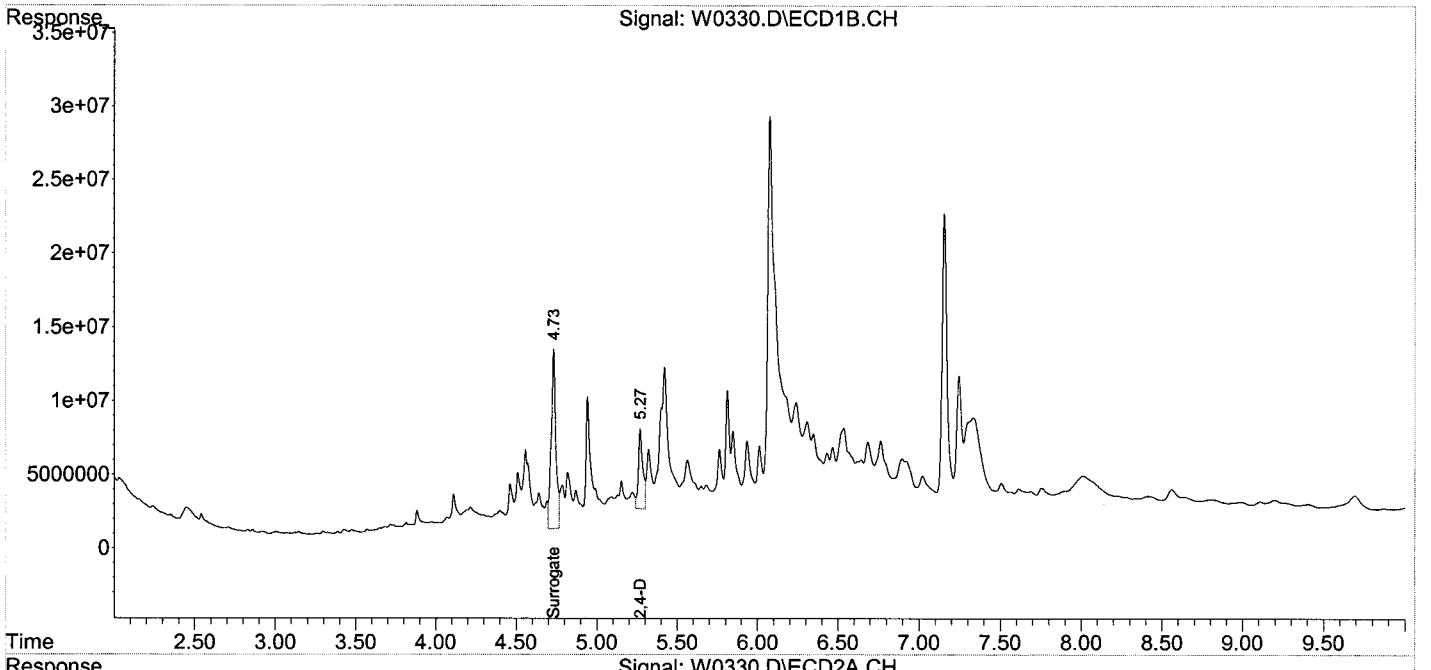
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

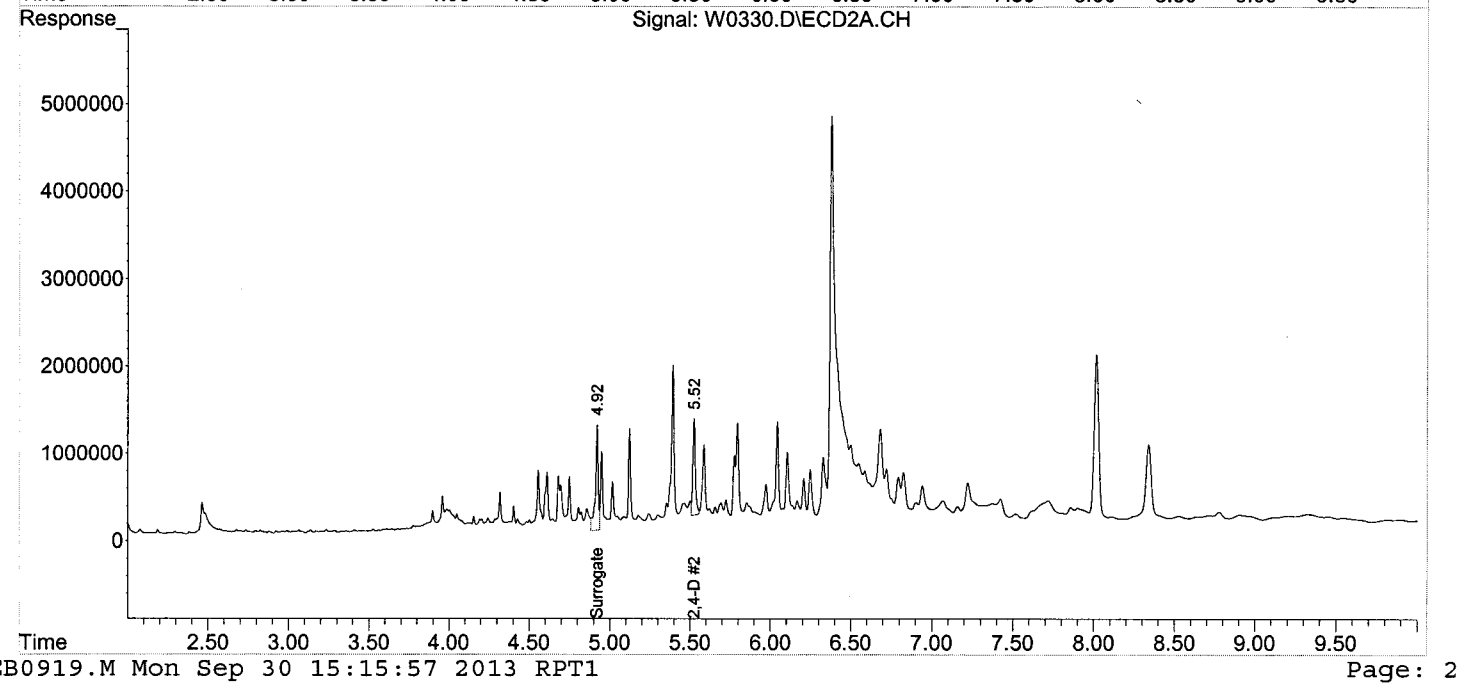
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0330.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 11:21
Operator : JS
Sample : C-3_BLD_2,09196-003,Xs,15.31g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:29:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0331.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 11:35
Operator : JS
Sample : C-4_IMP._M,09196-004,Xs,15.69g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:30:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.72	4.92	360.4E6	12683015	181.632m	47.902 #
Spiked Amount 100.000			Recovery	=	181.63%	47.90%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

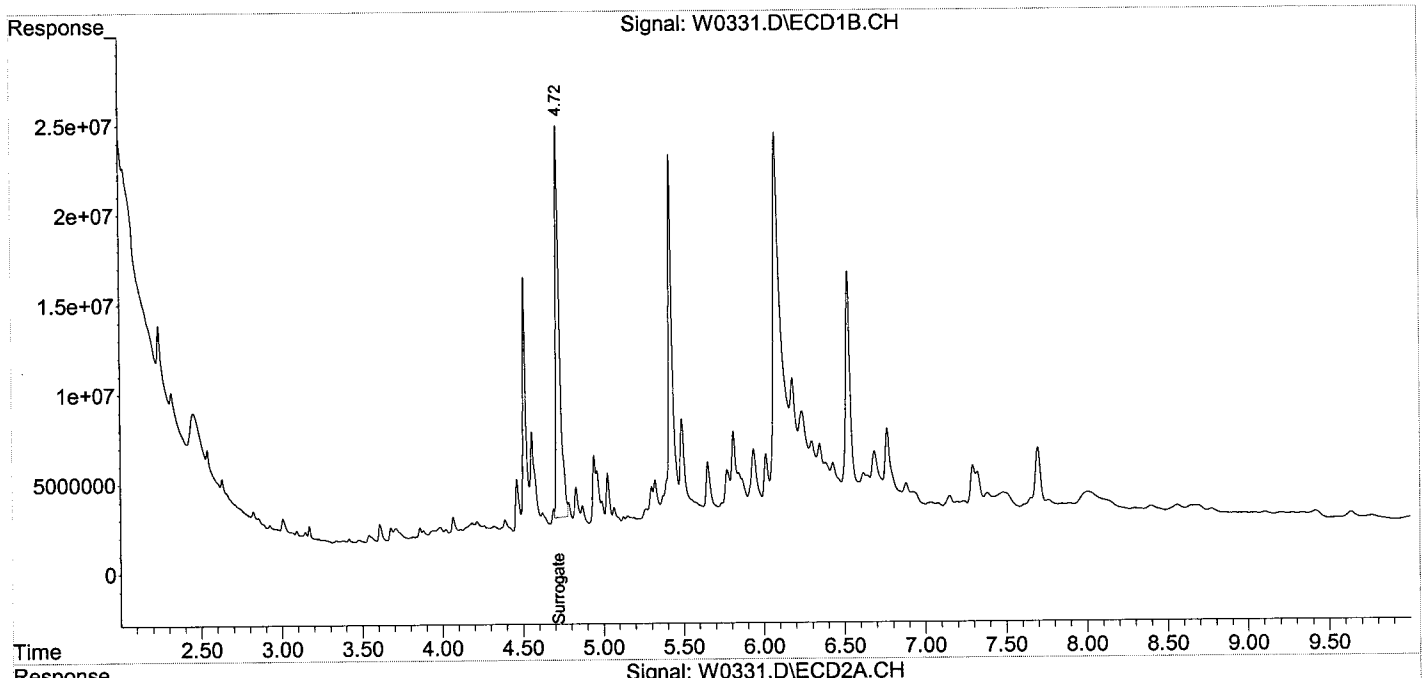
E13-09196 0293

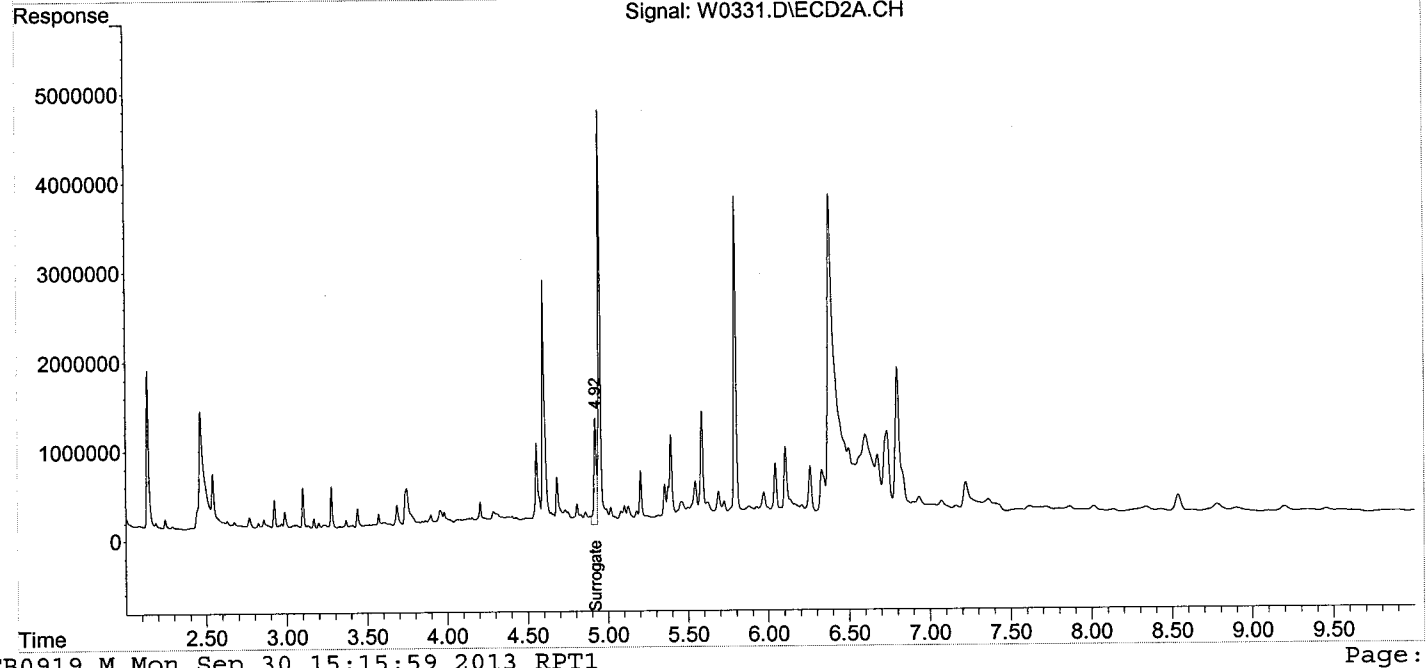
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0331.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 11:35
Operator : JS
Sample : C-4_IMP._M,09196-004,Xs,15.69g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:30:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0338.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 13:42
Operator : JS
Sample : C-5_SPHINX,09196-005,Xs,15.73g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,100
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:56:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
	Target Compounds						
11)	T Dinoseb	6.89	6.79	1197.4E6	121.7E6	568.872	497.140

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

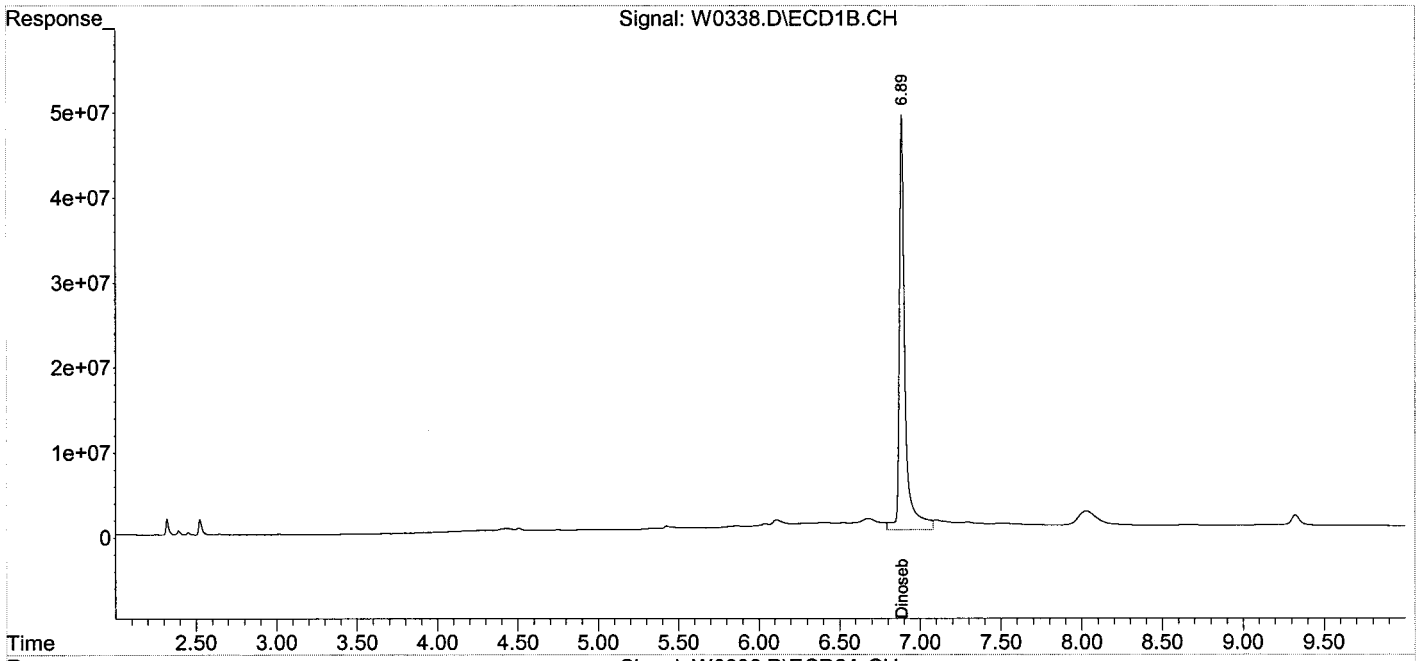
E13-09196 0295

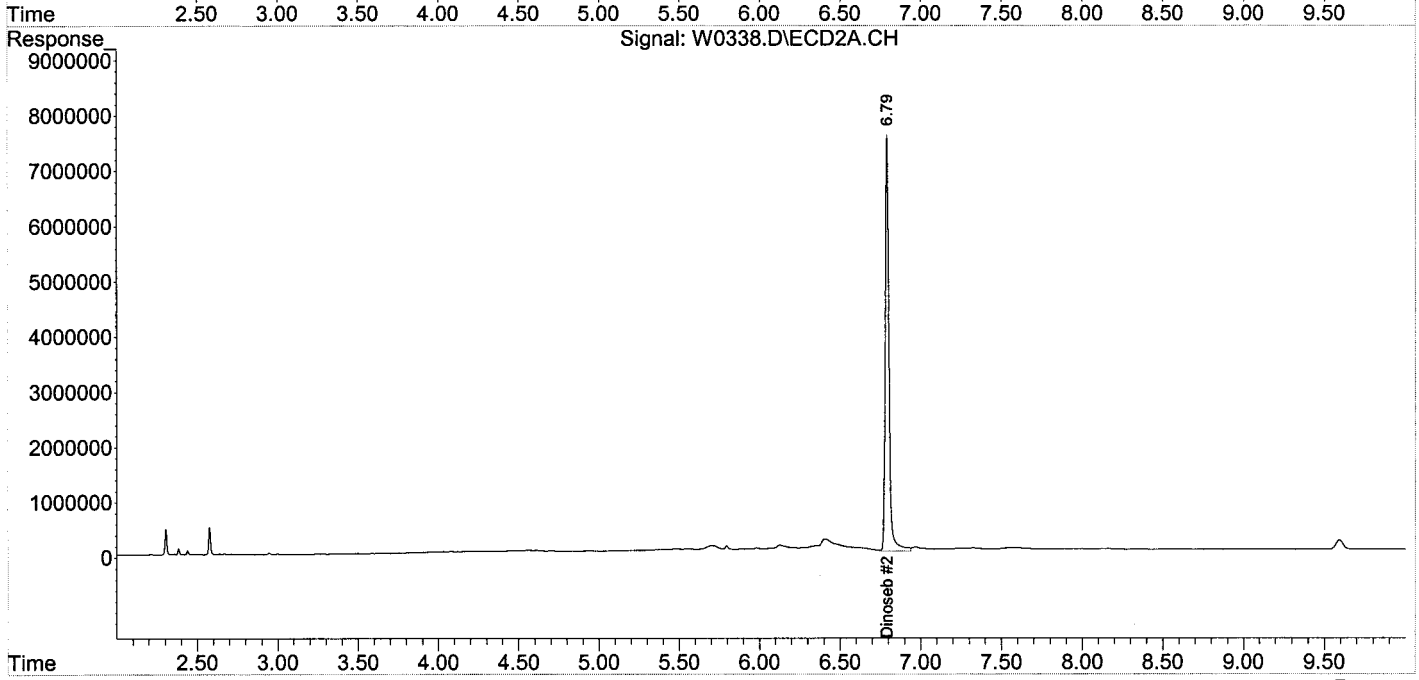
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0338.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 13:42
Operator : JS
Sample : C-5_SPHINX,09196-005,Xs,15.73g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,100
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:56:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0339.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 13:58
Operator : JS
Sample : C-5_SPHINX,09196-005DL,Xs,15.73g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,200
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 14:15:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
	Target Compounds						
11)	T Dinoseb	6.89	6.79	656.6E6	80147048	311.918	327.410

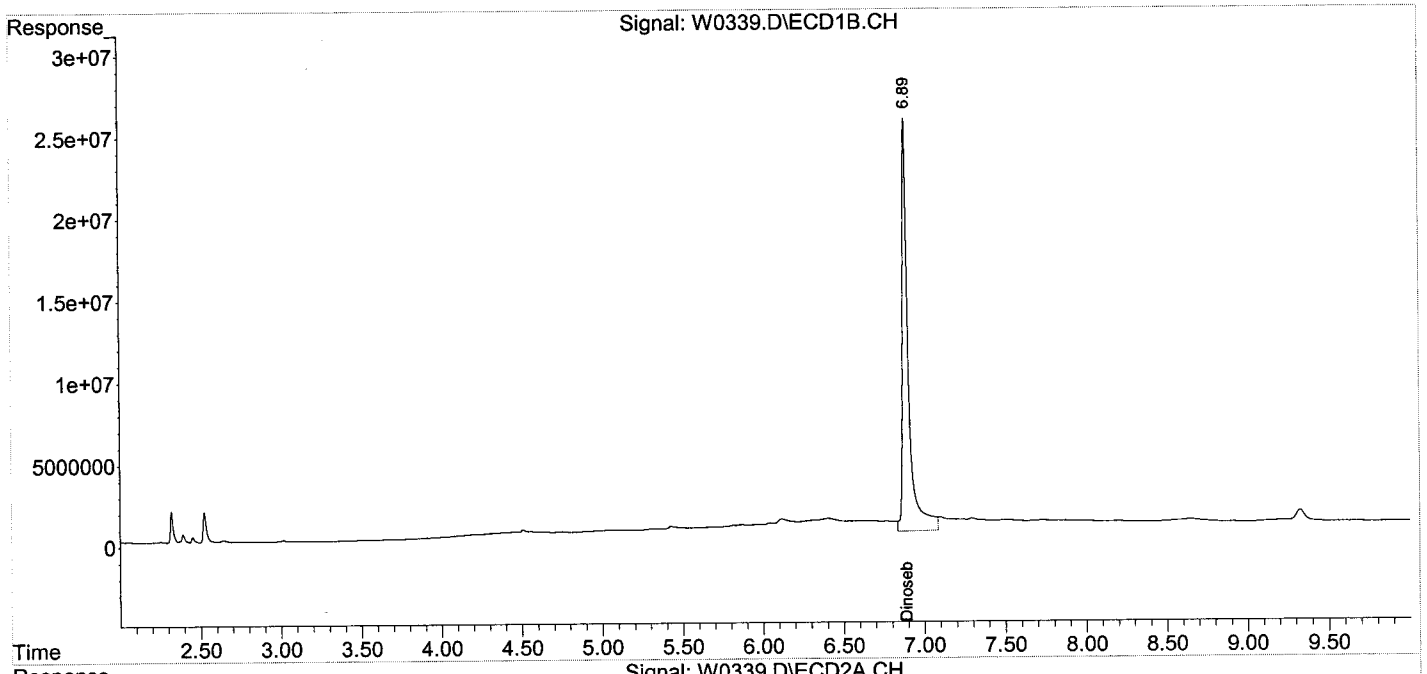
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

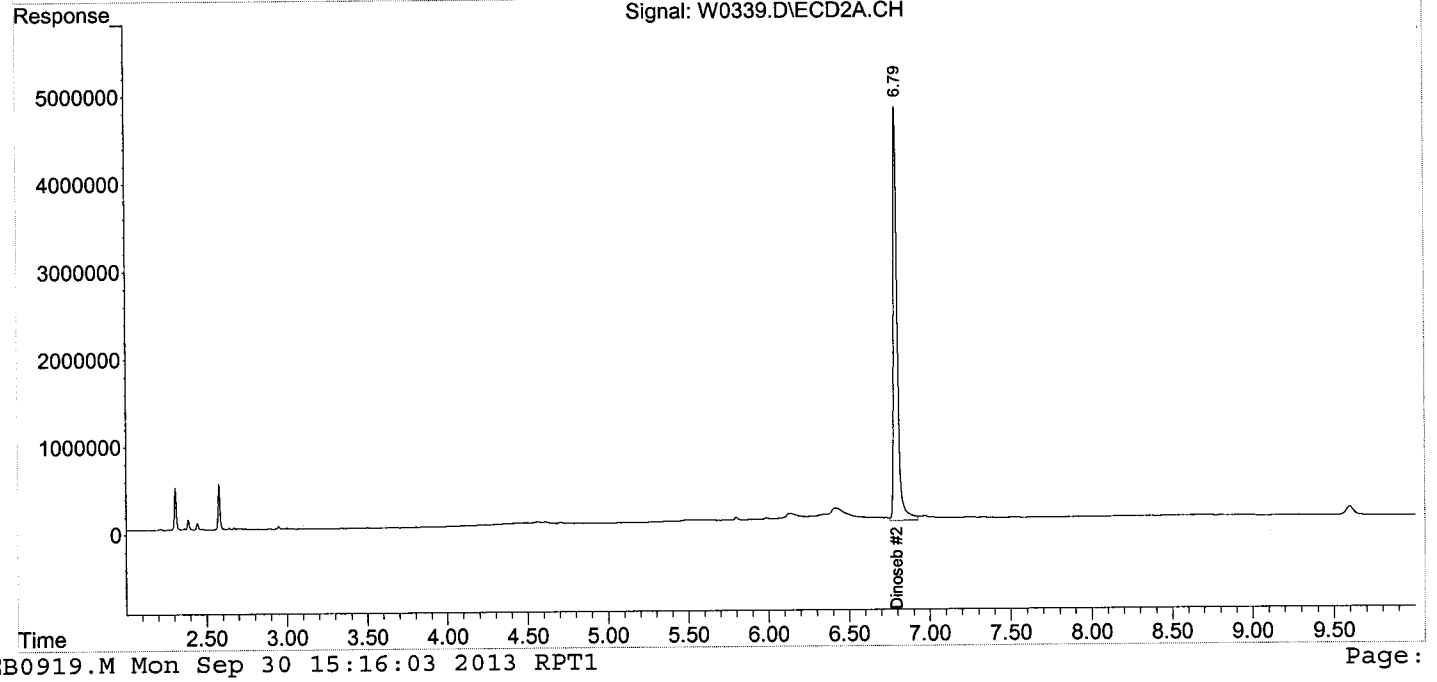
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0339.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 13:58
Operator : JS
Sample : C-5_SPHINX,09196-005DL,Xs,15.73g,0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,200
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 14:15:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKS130926-05
Client ID: Herb
Date Received: NA
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0323.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.00835	0.00334
Dicamba	ND		0.00835	0.00334
2,4-D	ND		0.00835	0.00334
2,4,5-TP (Silvex)	ND		0.00835	0.00334
2,4,5-T	ND		0.00835	0.00334
2,4-DB	ND		0.00835	0.00334
Dinoseb	ND		0.00835	0.00334

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0323.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 9:43
Operator : JS
Sample : Herb,BLKS130926-05,S,30.00g,0,09/26/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 11:00:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.93	169.9E6	22571957	85.623	85.251
Spiked Amount 100.000			Recovery =		85.62%	85.25%
Target Compounds						

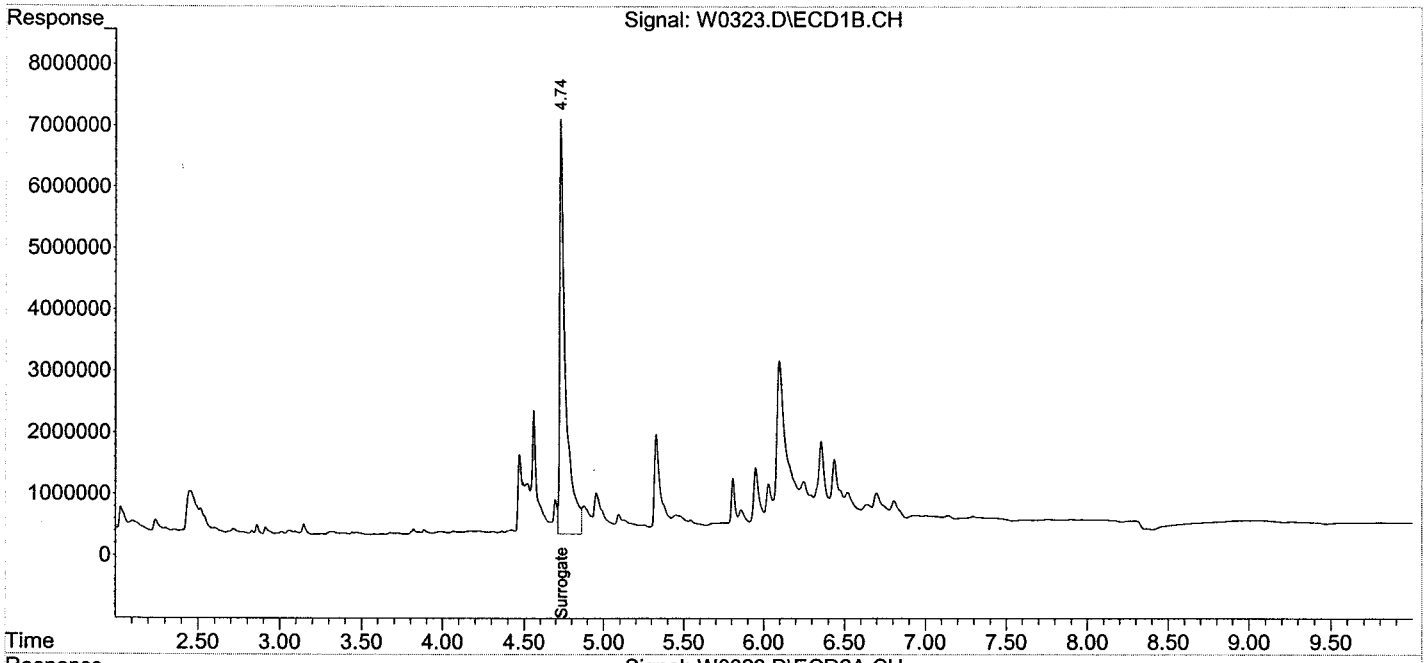
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

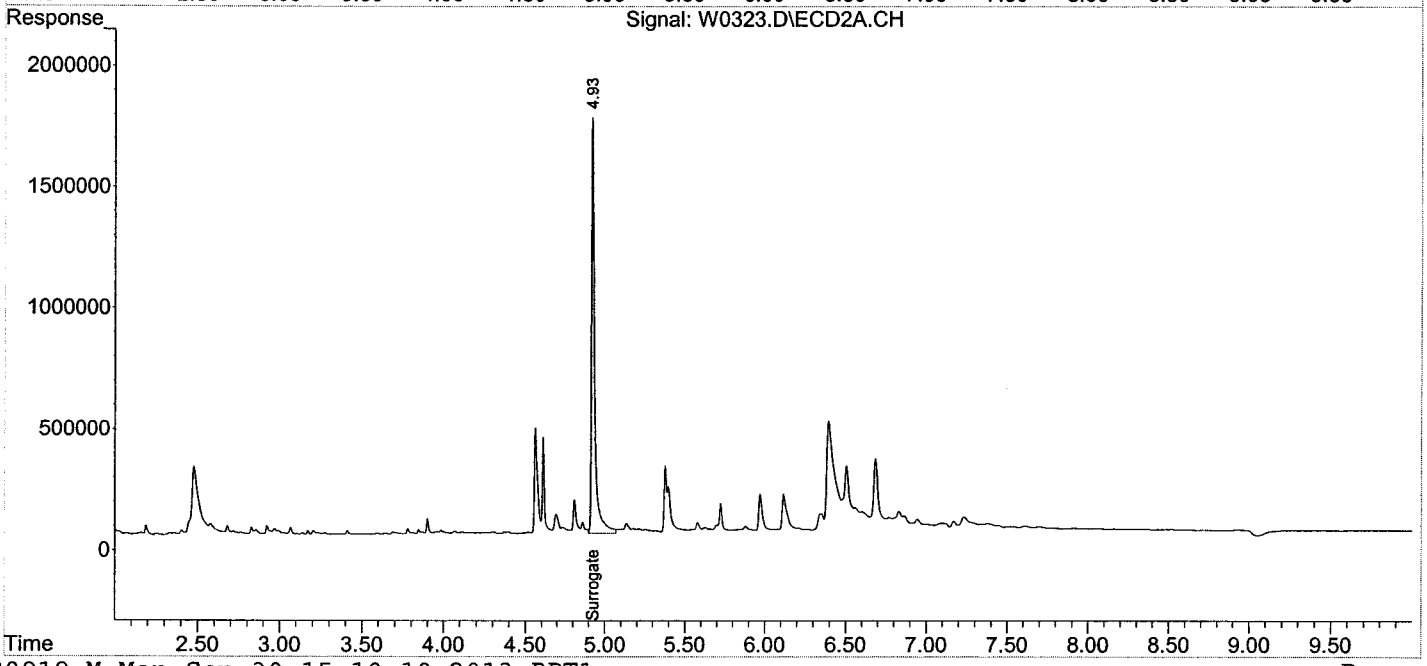
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0323.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 9:43
Operator : JS
Sample : Herb,BLKS130926-05,S,30.00g,0,09/26/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 11:00:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





E13-09196 0301

EXTRACTABLE PETROLEUM HYDROCARBON

EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH-C40 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Client ID	Lab Sample ID	Matrix	COD % rec	#	OTP % rec	#
NJ-EPH-C	BLKS130919-06	SOIL	74		75	
NJ-EPH-C	LCSS130919-06	SOIL	90		93	
NJ-EPH-C	LCSDS130919-06	SOIL	89		91	
AOC-2-1/	09135-001	SOIL	68		74	
AOC-2-2/	09135-002	SOIL	56		56	
AOC-2-3/	09135-003	SOIL	69		87	
C-1_WARE	09196-001	SOLID	66		76	
AOC-8/12	09197-007	SOIL	65		69	
AOC-12-1	09197-008	SOIL	74		81	
AOC-12-2	09197-009	SOIL	53		61	
AOC-12-3	09198-003	SOIL	80		86	
AOC-12-4	09198-004	SOIL	80		86	
AOC-12-4	09198-4D	SOIL	81		88	
NJ-EPH-C	09198-004MS	SOIL	76		78	
AOC-4/7.	09135-005	SOIL	63		67	
AOC-7-1/	09197-003	SOIL	66		72	
AOC-6/18	09197-010	SOIL	54		57	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130919-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0809.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	100	0.00	36	36	35	35	3
n-Decane (C10)	100	0.00	55	55	55	55	0
n-Dodecane (C12)	100	0.00	72	72	71	71	1
n-Tetradecane (C14)	100	0.00	80	80	78	78	3
n-Hexadecane (C16)	100	0.00	88	88	87	87	1
n-Octadecane (C18)	100	0.00	117	117	117	117	0
n-Eicosane (C20)	100	0.00	92	92	91	91	1
n-Heneicosane (C21)	100	0.00	112	112	115	115	3
n-Docosane (C22)	100	0.00	98	98	96	96	2
n-Tetracosane (C24)	100	0.00	92	92	90	90	2
n-Hexacosane (C26)	100	0.00	94	94	93	93	1
n-Octacosane (C28)	100	0.00	96	96	88	88	9
n-Triacontane (C30)	100	0.00	92	92	91	91	1
n-Dotriacontane (C32)	100	0.00	87	87	86	86	1
n-Tetratriacontane (C34)	100	0.00	86	86	84	84	2
n-Hexatriacontane (C36)	100	0.00	70	70	68	68	3
n-Octatriacontane (C38)	100	0.00	61	61	59	59	3
n-Tetracontane (C40)	100	0.00	58	58	56	56	4
C9-C40*	3600	0.00	3202	89	3157	88	1

*Includes Aromatic Compounds

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09198-004MS
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0823.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.6

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS
n-Nonane (C9)	100	0.00	32	32
n-Decane (C10)	100	0.00	48	48
n-Dodecane (C12)	100	0.00	60	60
n-Tetradecane (C14)	100	0.00	66	66
n-Hexadecane (C16)	100	0.00	72	72
n-Octadecane (C18)	100	0.00	92	92
n-Eicosane (C20)	100	0.00	76	76
n-Heneicosane (C21)	100	0.00	94	94
n-Docosane (C22)	100	0.00	80	80
n-Tetracosane (C24)	100	0.00	74	74
n-Hexacosane (C26)	100	0.00	76	76
n-Octacosane (C28)	100	0.00	76	76
n-Triacontane (C30)	100	0.00	74	74
n-Dotriacontane (C32)	100	0.00	71	71
n-Tetratriacontane (C34)	100	0.00	72	72
n-Hexatriacontane (C36)	100	0.00	60	60
n-Octatriacontane (C38)	100	0.00	49	49
n-Tetracontane (C40)	100	0.00	46	46
C9-C40*	3600	264.26	2700	68

*Includes Aromatic Compounds

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: AOC-12-4
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Lab ID: 09198-004
Sample wt/vol: 10.0g
Date Analyzed: 09/24/2013
Aliphatics Sample Data file: Z0821.D
Dilution Factor: 1

GC Column: RTX-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 19.6
Lab ID: 09198-4D
Sample wt/vol: 10.0g
Date Analyzed: 09/24/2013
Aliphatics Sample Dup Data file: Z0822.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C40	32.9	33.6	2

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NC Not calculable

NJ-EPH-C40 METHOD BLANK SUMMARY

Lab File ID: Z0807.D

Instrument ID: GC-Z

Date Extracted: 09/19/2013

Matrix: SOIL

Date Analyzed: 09/23/2013

Time Analyzed: 23:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
NJ-EPH-C	LCSS130919-06	09/23/2013	23:43
NJ-EPH-C	LCSDS130919-06	09/24/2013	00:05
AOC-2-1/	09135-001	09/24/2013	00:28
AOC-2-2/	09135-002	09/24/2013	00:50
AOC-2-3/	09135-003	09/24/2013	01:12
C-1_WARE	09196-001	09/24/2013	01:57
AOC-8/12	09197-007	09/24/2013	02:41
AOC-12-1	09197-008	09/24/2013	03:03
AOC-12-2	09197-009	09/24/2013	03:25
AOC-12-3	09198-003	09/24/2013	04:09
AOC-12-4	09198-004	09/24/2013	04:31
AOC-12-4	09198-4D	09/24/2013	04:54
NJ-EPH-C	09198-004MS	09/24/2013	05:16
AOC-4/7.	09135-005	09/24/2013	10:37
AOC-7-1/	09197-003	09/24/2013	10:59
AOC-6/18	09197-010	09/24/2013	11:22

NJ-EPH-C40 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Z **Column:** RTX-5

Surrogate RT from initial calibration :

COD 8.10 **OTP** 6.40

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#	OTP RT	#
NJ-EPH-C	BLKS130919-06	09/23/2013	23:21	8.10		6.40	
NJ-EPH-C	LCSS130919-06	09/23/2013	23:43	8.09		6.39	
NJ-EPH-C	LCSDS130919-06	09/24/2013	00:05	8.09		6.39	
AOC-2-1/	09135-001	09/24/2013	00:28	8.10		6.40	
AOC-2-2/	09135-002	09/24/2013	00:50	8.11		6.40	
AOC-2-3/	09135-003	09/24/2013	01:12	8.09		6.39	
C-1_WARE	09196-001	09/24/2013	01:57	8.09		6.39	
AOC-8/12	09197-007	09/24/2013	02:41	8.10		6.40	
AOC-12-1	09197-008	09/24/2013	03:03	8.09		6.39	
AOC-12-2	09197-009	09/24/2013	03:25	8.09		6.39	
AOC-12-3	09198-003	09/24/2013	04:09	8.09		6.39	
AOC-12-4	09198-004	09/24/2013	04:31	8.09		6.39	
AOC-12-4	09198-4D	09/24/2013	04:54	8.09		6.39	
NJ-EPH-C	09198-004MS	09/24/2013	05:16	8.09		6.39	
AOC-4/7.	09135-005	09/24/2013	10:37	8.10		6.40	
AOC-7-1/	09197-003	09/24/2013	10:59	8.09		6.40	
AOC-6/18	09197-010	09/24/2013	11:22	8.10		6.40	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0814.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 1:57
Operator : WP
Sample : C-1_WARE,09196-001,Xs,10.53g,0,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:05:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	9835469	66.080 ng
Spiked Amount 100.000		Recovery =	66.08%
23) S o-Terphenyl	6.39	21314127	76.355 ng
Spiked Amount 100.000		Recovery =	76.36%
Target Compounds			
22) H C9-C40	6.84	3184291440	10472.532 ng

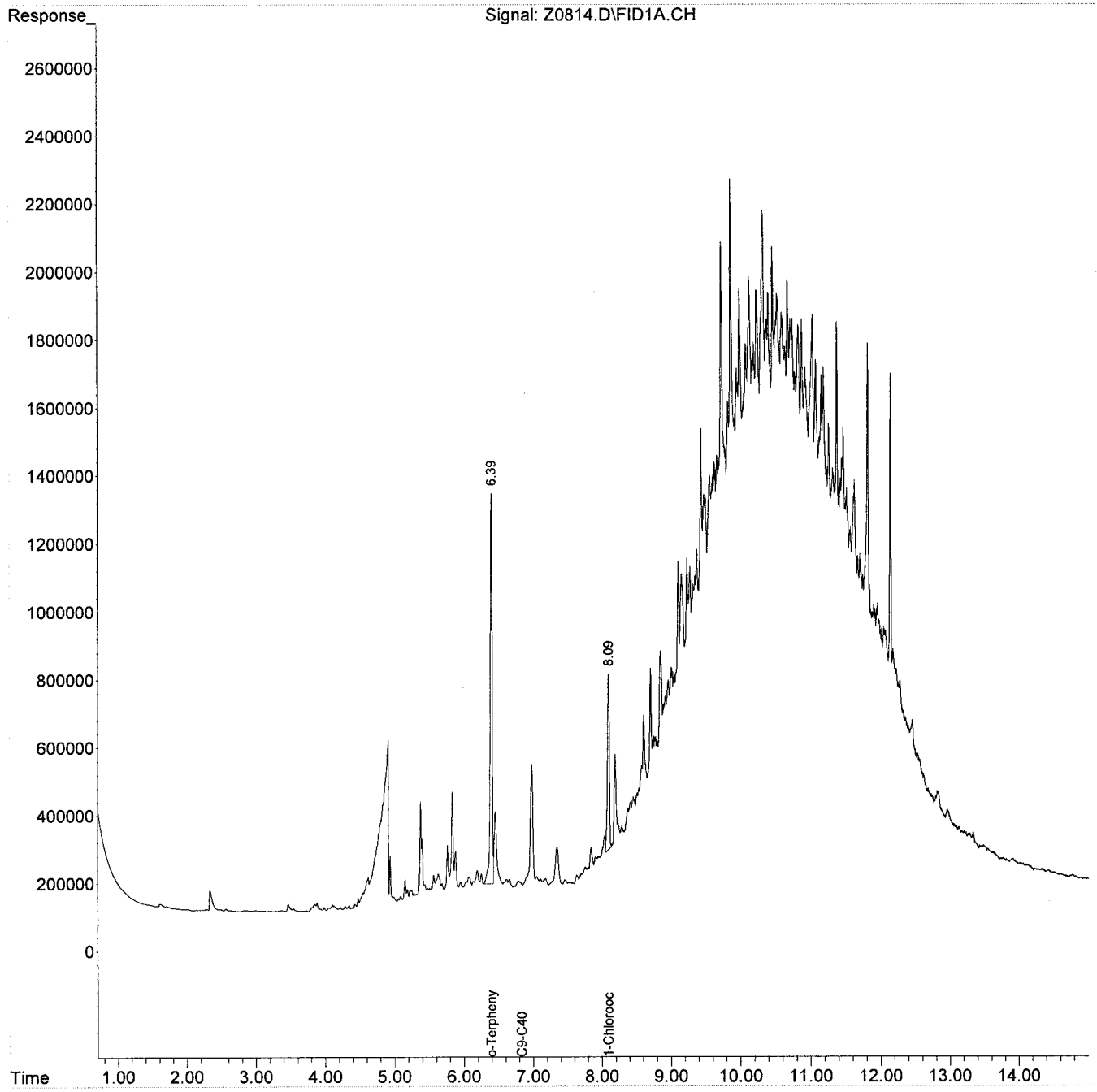
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0814.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 1:57
Operator : WP
Sample : C-1_WARE,09196-001,Xs,10.53g,0,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:05:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2013

Instrument ID: GC-Z

GC Column : RTX-5

Data File: Z0620.D Z0619.D Z0618.D Z0617.D Z0616.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	0.86	0.85	0.85	0.85	0.86	0.85	0.77	0.92
n-Decane (C10)	1.48	1.48	1.48	1.48	1.49	1.48	1.40	1.55
n-Dodecane (C12)	2.86	2.86	2.86	2.86	2.87	2.86	2.78	2.93
n-Tetradecane (C14)	3.99	3.98	3.98	3.99	4.00	3.99	3.91	4.06
n-Hexadecane (C16)	4.95	4.95	4.95	4.95	4.96	4.95	4.87	5.03
n-Octadecane (C18)	5.85	5.84	5.85	5.86	5.87	5.85	5.77	5.93
n-Eicosane (C20)	7.37	7.37	7.38	7.40	7.44	7.39	7.31	7.47
n-Heneicosane (C21)	8.20	8.21	8.21	8.23	8.25	8.22	8.14	8.30
n-Docosane (C22)	8.72	8.72	8.72	8.73	8.75	8.73	8.64	8.82
n-Tetracosane (C24)	9.44	9.44	9.44	9.45	9.46	9.44	9.35	9.53
n-Hexacosane (C26)	9.99	9.99	9.99	10.00	10.01	9.99	9.90	10.08
n_Octacosane (C28)	10.45	10.46	10.46	10.47	10.48	10.46	10.37	10.55
n-Triacontane (C30)	10.87	10.88	10.88	10.89	10.90	10.88	10.78	10.98
n-Dotriacontane (C32)	11.26	11.26	11.27	11.28	11.29	11.27	11.17	11.37
n-Tetratriacontane (C34)	11.62	11.62	11.63	11.64	11.65	11.63	11.53	11.73
n-Hexatriacontane (C36)	11.96	11.96	11.97	11.98	11.99	11.97	11.82	12.12
n-Octatriacontane (C38)	12.28	12.28	12.29	12.30	12.31	12.29	12.14	12.44
n-Tetracontane (C40)	12.63	12.63	12.64	12.65	12.66	12.64	12.49	12.79
C9-C28	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
C28-C40	11.88	11.88	11.88	11.88	11.88	11.88	11.78	11.98
C9-C40	6.84	6.84	6.84	6.84	6.84	6.84	6.73	6.95

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2013 **Instrument ID:** GC-Z
GC Column : RTX-5

Data File: Z0620.D Z0619.D Z0618.D Z0617.D Z0616.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	20	100	250	500	1000		
n-Nonane (C9)	283469	245781	222628	213600	217524	236600	12.27
n-Decane (C10)	284948	250794	228937	219888	228292	242572	10.84
n-Dodecane (C12)	283254	254479	235619	228350	239954	248331	8.75
n-Tetradecane (C14)	292958	262233	244940	238899	250465	257899	8.30
n-Hexadecane (C16)	302525	271076	253476	247523	258100	266540	8.22
n-Octadecane (C18)	312599	278729	259633	254502	262169	273526	8.65
n-Eicosane (C20)	317842	283764	259515	260050	257329	275700	9.40
n-Heneicosane (C21)	315116	271746	241001	233058	244199	261024	12.86
n-Docosane (C22)	329225	295970	273388	265763	268724	286614	9.29
n-Tetracosane (C24)	328859	295249	275407	261788	263997	285060	9.77
n-Hexacosane (C26)	328174	288501	273451	258892	259561	281716	10.17
n_Octacosane (C28)	330600	291048	275549	256309	257315	282164	10.86
n-Triacontane (C30)	338690	294816	279665	255849	257557	285316	11.90
n-Dotriacontane (C32)	333280	291183	274861	249976	253652	280590	12.06
n-Tetratriacontane (C34)	320479	277464	264881	240627	246381	269967	11.79
n-Hexatriacontane (C36)	314407	271459	260404	237421	245147	265768	11.38
n-Octatriacontane (C38)	297370	257792	248667	228759	237574	254032	10.47
n-Tetracontane (C40)	279614	244758	237511	219258	230211	242270	9.45
C9-C28	4559425	3682120	3250834	3069901	3094548	3531366	17.70
C28-C40	2259469	1761685	1623431	1464425	1493221	1720446	18.81
C9-C40	7417756	5722863	5001746	4603079	4620417	5473172	21.52

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0616.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:07
Operator : WP
Sample : ALI_L5_IAS_4645,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.13	140246830	942.252 ng
Spiked Amount	100.000		Recovery =	942.25%
23) S	o-Terphenyl	6.45	288610193	1033.913 ng
Spiked Amount	100.000		Recovery =	1033.91%
	Target Compounds			
2) T	n-Nonane (C9)	0.86	217524124	919.373 ng
3) T	n-Decane (C10)	1.49	228292064	941.132 ng
4) T	n-Dodecane (C12)	2.87	239953574	966.263 ng
5) T	n-Tetradecane (C14)	4.00	250464772	971.174 ng
6) T	n-Hexadecane (C16)	4.96	258099669	968.334 ng
7) T	n-Octadecane (C18)	5.87	262168727	958.477 ng
8) T	n-Eicosane (C20)	7.44	257328521	924.234 ng
9) T	n-Heneicosane (C21)	8.25	244199263	935.544 ng
10) T	n-Docosane (C22)	8.75	268723745	937.580 ng
11) T	n-Tetracosane (C24)	9.46	263997388	926.112 ng
12) T	n-Hexacosane (C26)	10.01	259560758	921.357 ng
13) T	n-Octacosane (C28)	10.48	257314862	911.933 ng
14) T	n-Triacontane (C30)	10.90	257557472	902.711 ng
15) T	n-Dotriacontane (C32)	11.29	253652207	903.995 ng
16) T	n-Tetratriacontane (C34)	11.65	246381122	912.636 ng
17) T	n-Hexatriacontane (C36)	11.99	245147189	922.412 ng
18) T	n-Octatriacontane (C38)	12.31	237574292	935.212 ng
19) T	n-Tetracontane (C40)	12.66	230210677	950.223 ng
20) H	C9-C28	5.03	3094547500	10515.845 ng
21) H	C28-C40	11.88	1493220787	5207.559 ng
22) H	C9-C40	6.84	4620416589	15195.676 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

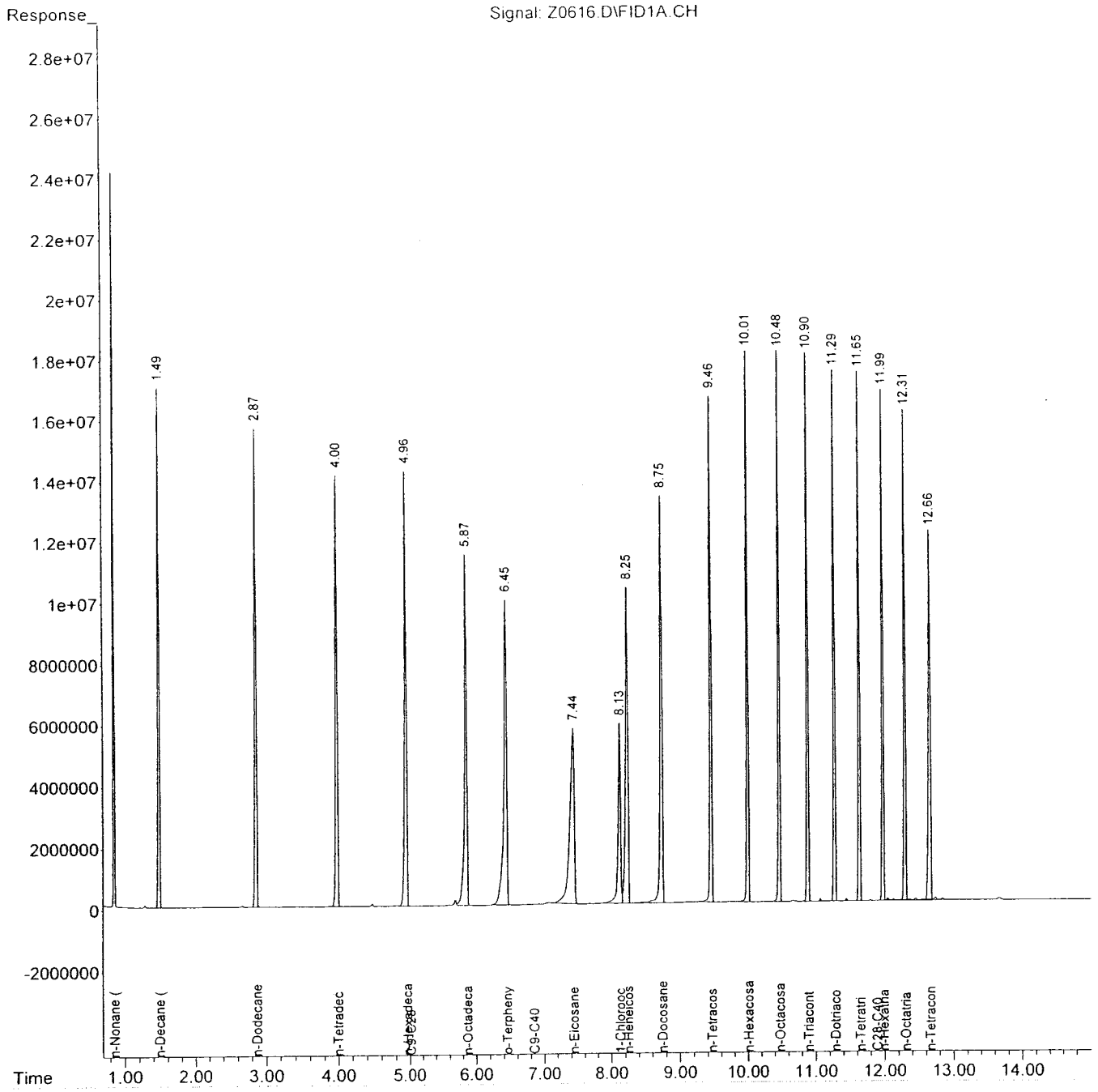
E13-09196

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0616.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:07
Operator : WP
Sample : ALI_L5_IAS_4645,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0617.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:30
Operator : WP
Sample : ALI_L4_IAS_4646,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	1-Chlorooctadecane	8.12	72120252	484.542	ng
Spiked Amount		100.000		Recovery	= 484.54%	
23)	S	o-Terphenyl	6.43	128882295	461.706	ng
Spiked Amount		100.000		Recovery	= 461.71%	
Target Compounds						
2)	T	n-Nonane (C9)	0.85	106799947	451.394	ng
3)	T	n-Decane (C10)	1.48	109943930	453.243	ng
4)	T	n-Dodecane (C12)	2.86	114175203	459.769	ng
5)	T	n-Tetradecane (C14)	3.99	119449442	463.164	ng
6)	T	n-Hexadecane (C16)	4.95	123761567	464.327	ng
7)	T	n-Octadecane (C18)	5.86	127251100	465.224	ng
8)	T	n-Eicosane (C20)	7.40	130024951	467.004	ng
9)	T	n-Heneicosane (C21)	8.23	116528751	446.429	ng
10)	T	n-Docosane (C22)	8.73	132881646	463.626	ng
11)	T	n-Tetracosane (C24)	9.45	130893980	459.180	ng
12)	T	n-Hexacosane (C26)	10.00	129446099	459.492	ng
13)	T	n-Octacosane (C28)	10.47	128154299	454.184	ng
14)	T	n-Triacontane (C30)	10.89	127924561	448.361	ng
15)	T	n-Dotriacontane (C32)	11.28	124988026	445.447	ng
16)	T	n-Tetratriacontane (C34)	11.64	120313584	445.661	ng
17)	T	n-Hexatriacontane (C36)	11.98	118710568	446.671	ng
18)	T	n-Octatriacontane (C38)	12.30	114379294	450.255	ng
19)	T	n-Tetracontane (C40)	12.65	109628760	452.506	ng
20)	H	C9-C28	5.03	1534950577	5216.046	ng
21)	H	C28-C40	11.88	732212543	2553.568	ng
22)	H	C9-C40	6.84	2301539361	7569.327	ng

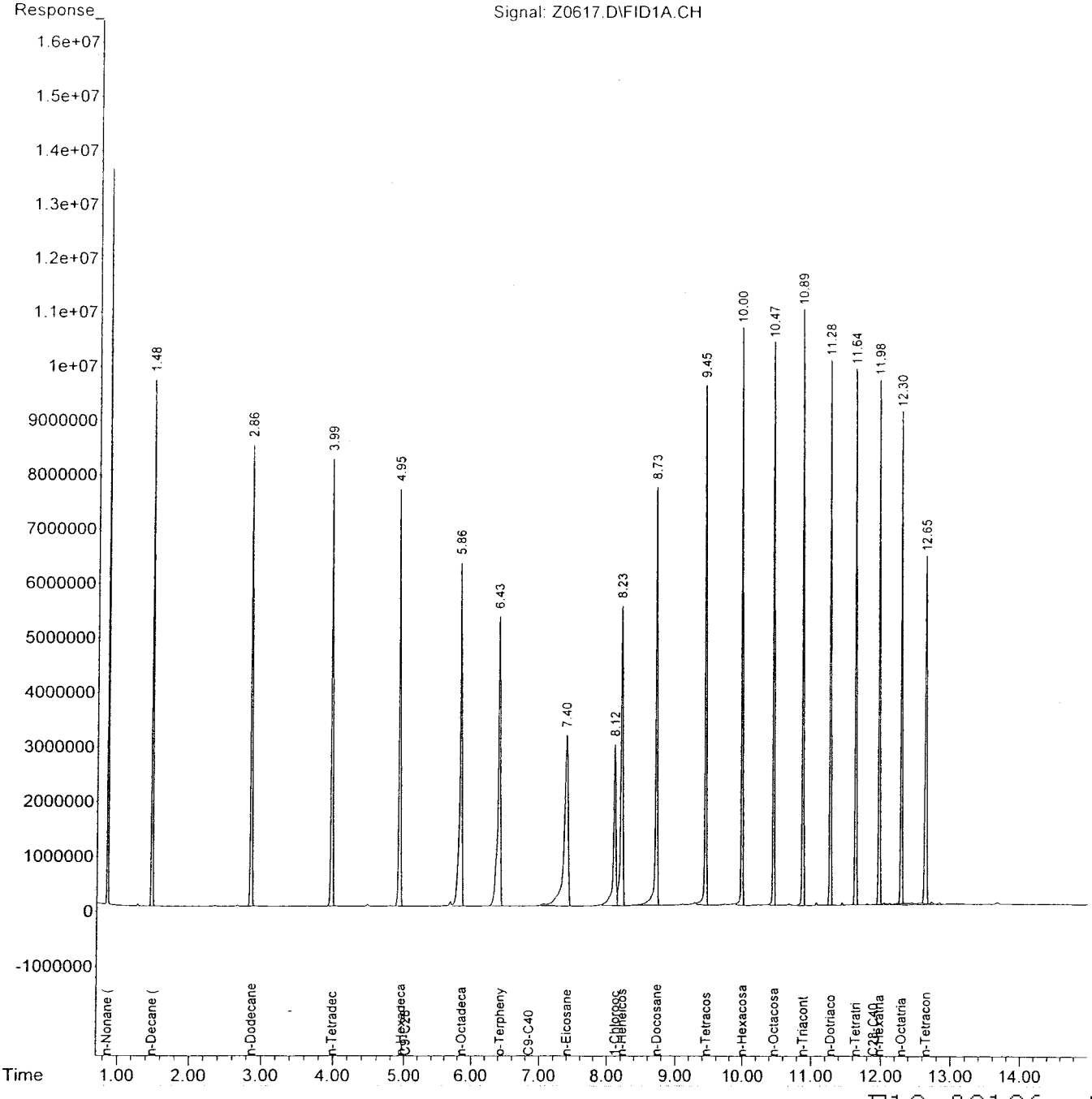
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0617.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:30
Operator : WP
Sample : ALI_L4_IAS_4646,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0618.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:52
Operator : WP
Sample : ALI_L3_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	8.11	37332331	250.818 ng
Spiked Amount	100.000		Recovery =	250.82%
23) S	o-Terphenyl	6.42	65723796	235.448 ng
Spiked Amount	100.000		Recovery =	235.45%
Target Compounds				
2) T	n-Nonane (C9)	0.85	55657073	235.237 ng
3) T	n-Decane (C10)	1.48	57234368	235.948 ng
4) T	n-Dodecane (C12)	2.86	58904859	237.203 ng
5) T	n-Tetradecane (C14)	3.98	61235033	237.438 ng
6) T	n-Hexadecane (C16)	4.95	63368933	237.747 ng
7) T	n-Octadecane (C18)	5.85	64908178	237.301 ng
8) T	n-Eicosane (C20)	7.38	64878839	233.022 ng
9) T	n-Heneicosane (C21)	8.21	60250132	230.822 ng
10) T	n-Docosane (C22)	8.72	68347013	238.464 ng
11) T	n-Tetracosane (C24)	9.44	68851793	241.534 ng
12) T	n-Hexacosane (C26)	9.99	68362768	242.666 ng
13) T	n-Octacosane (C28)	10.46	68887137	244.139 ng
14) T	n-Triacontane (C30)	10.88	69916366	245.049 ng
15) T	n-Dotriacontane (C32)	11.27	68715199	244.895 ng
16) T	n-Tetratriacontane (C34)	11.63	66220355	245.291 ng
17) T	n-Hexatriacontane (C36)	11.97	65100953	244.954 ng
18) T	n-Octatriacontane (C38)	12.29	62166859	244.720 ng
19) T	n-Tetracontane (C40)	12.64	59377647	245.089 ng
20) H	C9-C28	5.03	812708611	2761.734 ng
21) H	C28-C40	11.88	405857748	1415.416 ng
22) H	C9-C40	6.84	1250436473	4112.449 ng

(f)=RT Delta > 1/2 Window

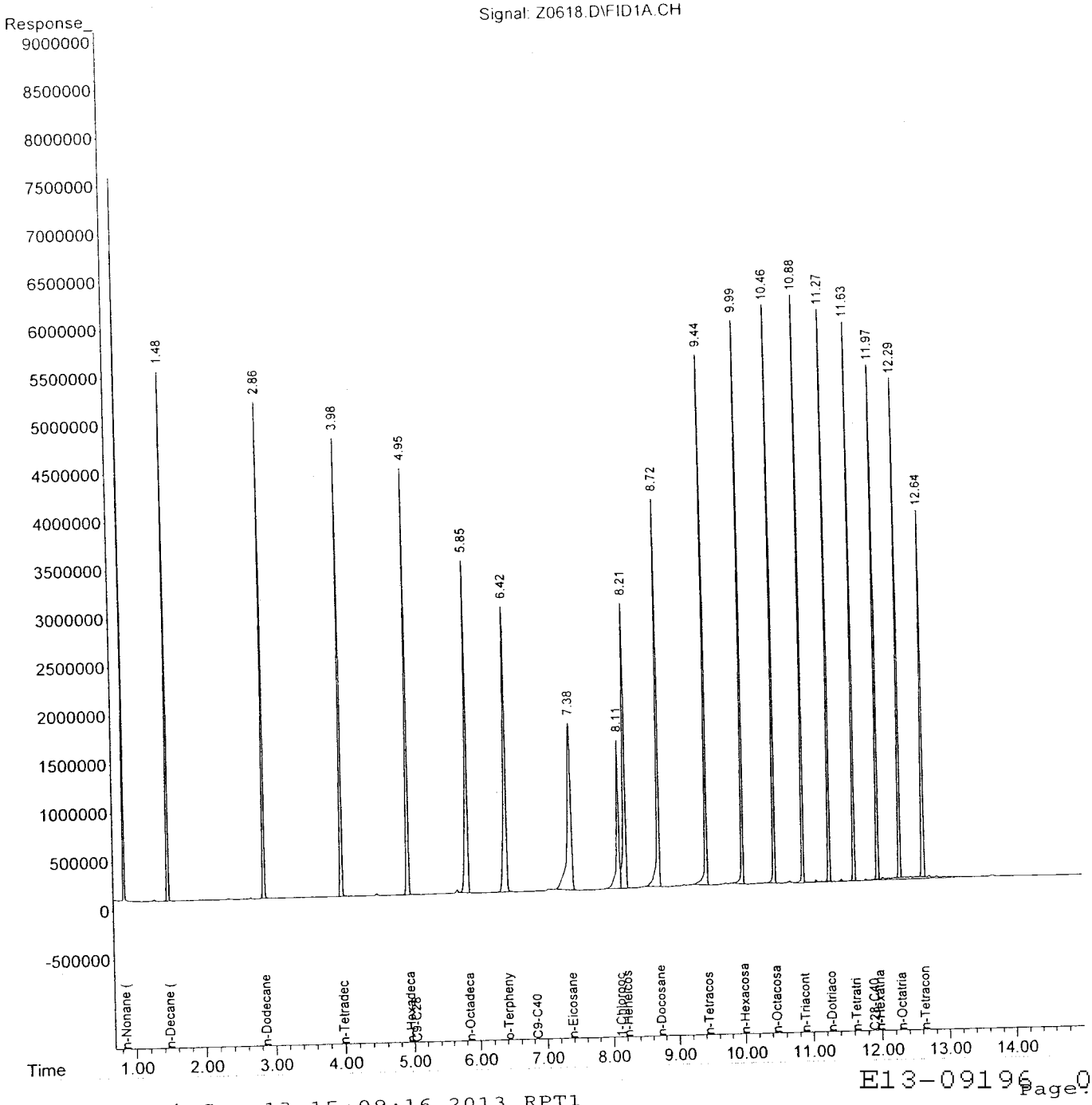
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0618.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:52
Operator : WP
Sample : ALI_L3_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0619.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 13:15
Operator : WP
Sample : ALI_L2_IAS_4648,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.11	15179352	101.983 ng
Spiked Amount	100.000		Recovery =	101.98%
23) S	o-Terphenyl	6.41	28154333	100.860 ng
Spiked Amount	100.000		Recovery =	100.86%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	24578125	103.880 ng
3) T	n-Decane (C10)	1.48	25079424	103.390 ng
4) T	n-Dodecane (C12)	2.86	25447939	102.476 ng
5) T	n-Tetradecane (C14)	3.98	26223292	101.680 ng
6) T	n-Hexadecane (C16)	4.95	27107634	101.702 ng
7) T	n-Octadecane (C18)	5.84	27872933	101.902 ng
8) T	n-Eicosane (C20)	7.37	28376356	101.918 ng
9) T	n-Heneicosane (C21)	8.21	27174616	104.108 ng
10) T	n-Docosane (C22)	8.72	29597040	103.264 ng
11) T	n-Tetracosane (C24)	9.44	29524871	103.574 ng
12) T	n-Hexacosane (C26)	9.99	28850055	102.408 ng
13) T	n-Octacosane (C28)	10.46	29104843	103.149 ng
14) T	n-Triacontane (C30)	10.88	29481620	103.330 ng
15) T	n-Dotriacontane (C32)	11.26	29118262	103.775 ng
16) T	n-Tetratriacontane (C34)	11.62	27746423	102.777 ng
17) T	n-Hexatriacontane (C36)	11.96	27145869	102.141 ng
18) T	n-Octatriacontane (C38)	12.28	25779166	101.480 ng
19) T	n-Tetracontane (C40)	12.63	24475792	101.027 ng
20) H	C9-C28	5.03	368211963	1251.252 ng
21) H	C28-C40	11.88	176168467	614.382 ng
22) H	C9-C40	6.84	572286286	1882.141 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

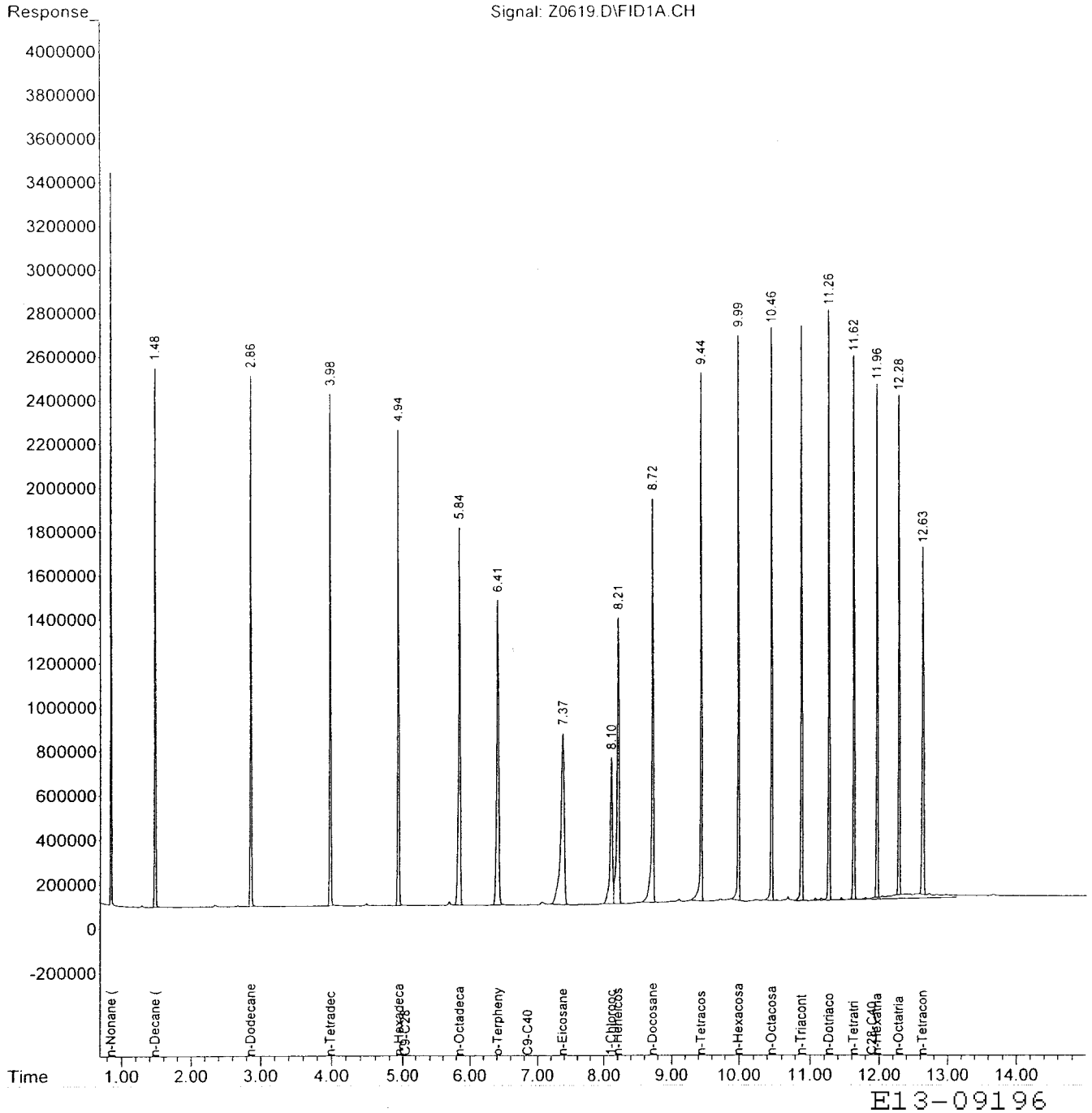
E13-09196

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0619.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 13:15
Operator : WP
Sample : ALI_L2_IAS_4648,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0620.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 21:18
Operator : WP
Sample : ALI_L1_IAS_4649,20_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.11	3165130	21.265 ng
Spiked Amount	100.000		Recovery =	21.27%
23) S	o-Terphenyl	6.42	6098099	21.846 ng
Spiked Amount	100.000		Recovery =	21.85%
	Target Compounds			
2) T	n-Nonane (C9)	0.86	5669379	23.962 ng
3) T	n-Decane (C10)	1.48	5698953	23.494 ng
4) T	n-Dodecane (C12)	2.86	5665085	22.813 ng
5) T	n-Tetradecane (C14)	3.99	5859159	22.719 ng
6) T	n-Hexadecane (C16)	4.95	6050492	22.700 ng
7) T	n-Octadecane (C18)	5.85	6251973	22.857 ng
8) T	n-Eicosane (C20)	7.37	6356836	22.832 ng
9) T	n-Heneicosane (C21)	8.20	6302320	24.145 ng
10) T	n-Docosane (C22)	8.72	6584503	22.973 ng
11) T	n-Tetracosane (C24)	9.44	6577176	23.073 ng
12) T	n-Hexacosane (C26)	9.99	6563484	23.298 ng
13) T	n-Octacosane (C28)	10.45	6612004	23.433 ng
14) T	n-Triacontane (C30)	10.87	6773802	23.741 ng
15) T	n-Dotriacontane (C32)	11.26	6665597	23.756 ng
16) T	n-Tetratriacontane (C34)	11.62	6409576	23.742 ng
17) T	n-Hexatriacontane (C36)	11.96	6288143	23.660 ng
18) T	n-Octatriacontane (C38)	12.28	5947409	23.412 ng
19) T	n-Tetracontane (C40)	12.63	5592270	23.083 ng
20) H	C9-C28	5.03	91188505	309.875 ng
21) H	C28-C40	11.88	45189372	157.596 ng
22) H	C9-C40	6.84	148355114	487.912 ng

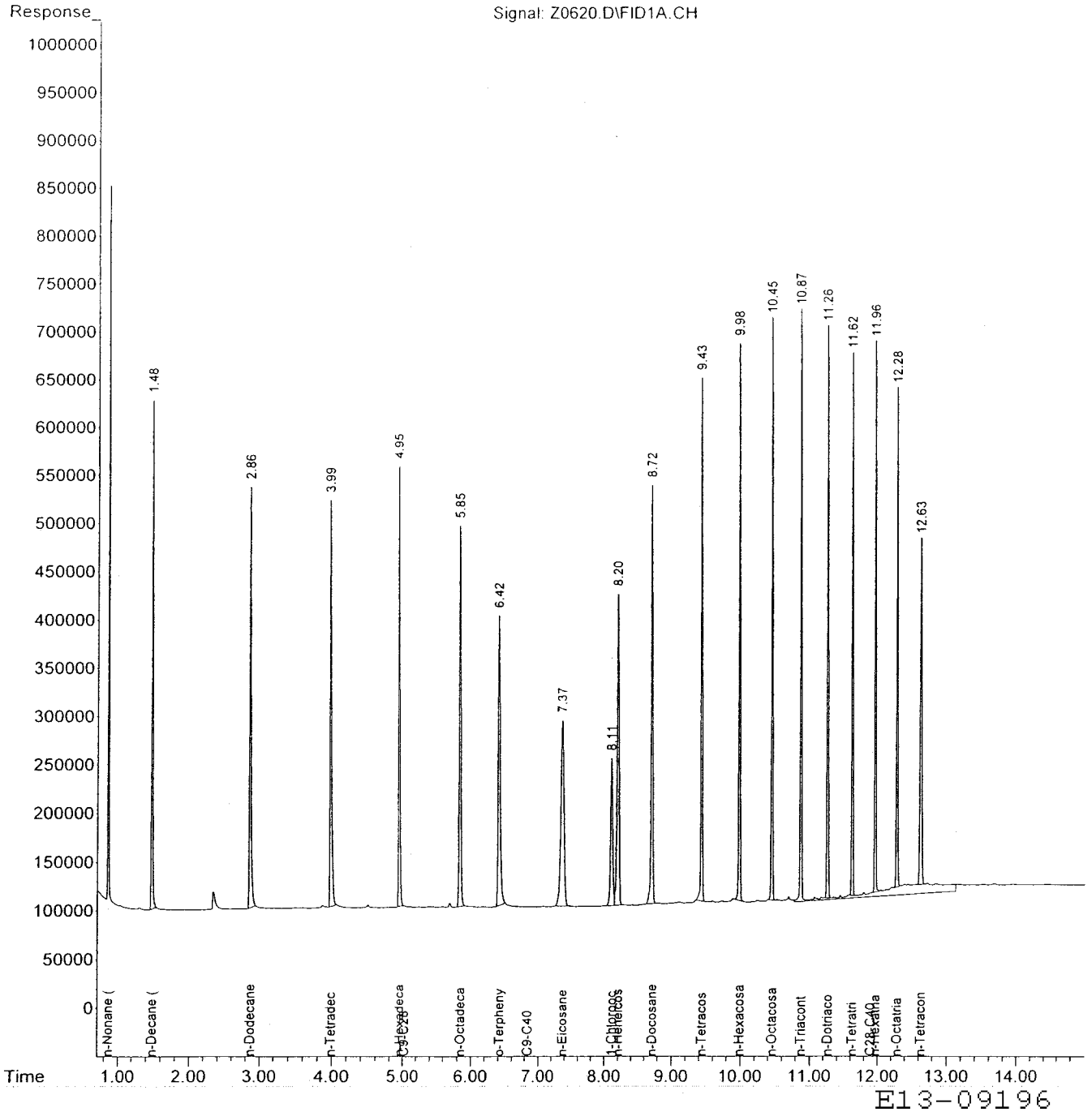
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0620.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 21:18
Operator : WP
Sample : ALI_L1_IAS_4649,20_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0621.D
Signal(s) : FID1A.CH
Acq On : 06 Sep 2013 7:23
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:40:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:09:47 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.12	42951239	288.703 ng
Spiked Amount	100.000		Recovery =	288.70%
23) S	o-Terphenyl	6.43	69689509	249.655 ng
Spiked Amount	100.000		Recovery =	249.66%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61404070	259.526 ng
3) T	n-Decane (C10)	1.48	63166886	260.405 ng
4) T	n-Dodecane (C12)	2.86	64522086	259.822 ng
5) T	n-Tetradecane (C14)	3.99	66336740	257.220 ng
6) T	n-Hexadecane (C16)	4.95	67913505	254.797 ng
7) T	n-Octadecane (C18)	5.86	69217362	253.056 ng
8) T	n-Eicosane (C20)	7.40	68290877	247.700 ng
9) T	n-Heneicosane (C21)	8.22	61348625	235.031 ng
10) T	n-Docosane (C22)	8.73	70991399	247.690 ng
11) T	n-Tetracosane (C24)	9.45	73053142	256.273 ng
12) T	n-Hexacosane (C26)	10.00	71930564	255.330 ng
13) T	n-Octacosane (C28)	10.47	70707730	250.591 ng
14) T	n-Triacontane (C30)	10.89	71843210	251.803 ng
15) T	n-Dotriacontane (C32)	11.27	69158426	246.475 ng
16) T	n-Tetratriacontane (C34)	11.64	66722781	247.152 ng
17) T	n-Hexatriacontane (C36)	11.98	66045651	248.509 ng
18) T	n-Octatriacontane (C38)	12.30	62634210	246.560 ng
19) T	n-Tetracontane (C40)	12.65	60211735	248.531 ng
20) H	C9-C28	5.03	905227511	3076.071 ng
21) H	C28-C40	11.88	411581511	1435.377 ng
22) H	C9-C40	6.84	1342962557	4416.694 ng

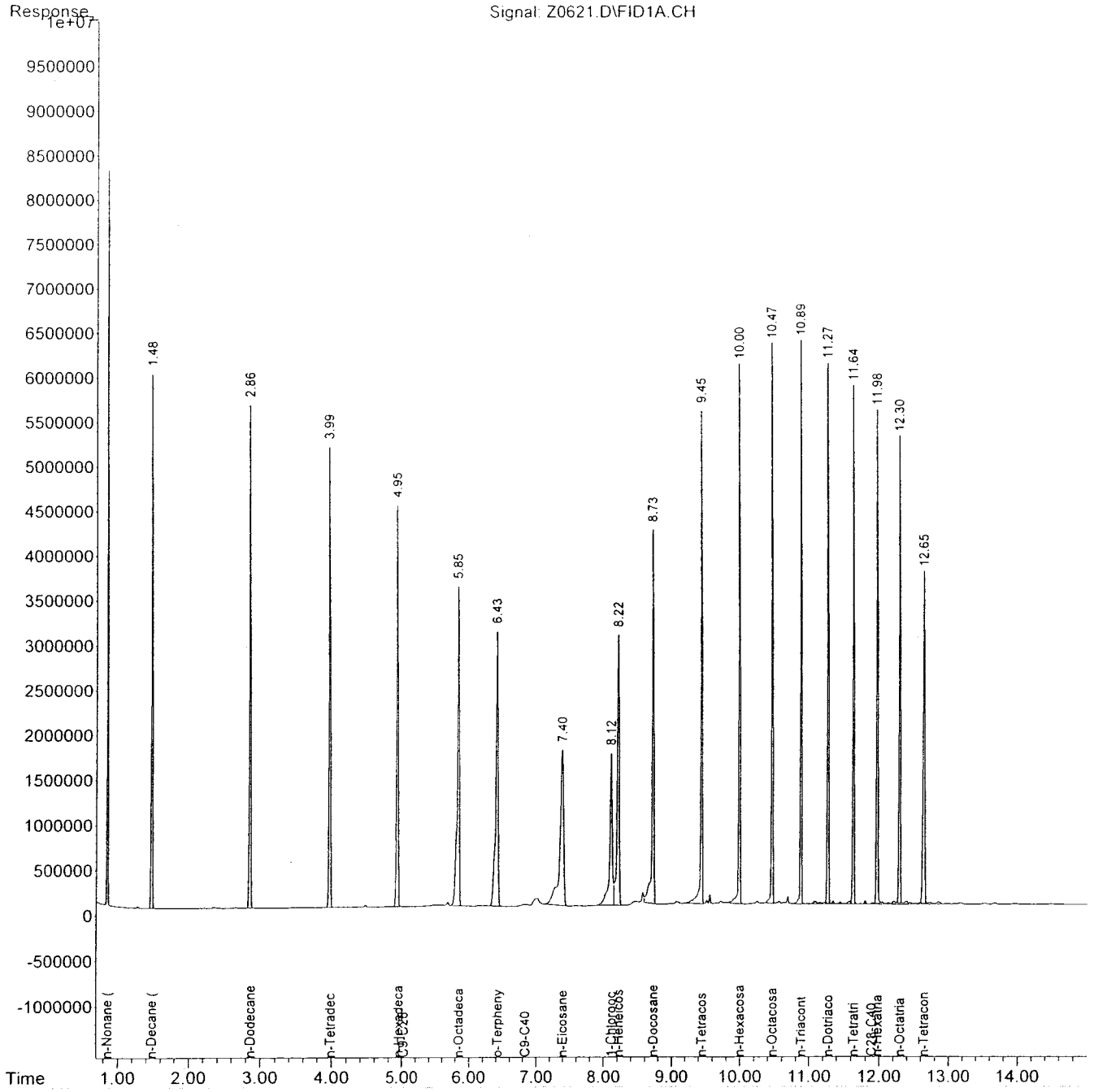
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0621.D
Signal(s) : FID1A.CH
Acq On : 06 Sep 2013 7:23
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:40:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:09:47 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09196_0327

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/23/2013 **Instrument ID:** GC-Z

Data File: Z0806.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	245837	3.90
n-Decane (C10)	1.47	1.40	1.55	242572	258993	6.77
n-Dodecane (C12)	2.85	2.78	2.93	248331	265293	6.83
n-Tetradecane (C14)	3.97	3.91	4.06	257899	275210	6.71
n-Hexadecane (C16)	4.94	4.87	5.03	266540	283168	6.24
n-Octadecane (C18)	5.84	5.77	5.93	273526	288967	5.65
n-Eicosane (C20)	7.36	7.31	7.47	275700	288924	4.80
n-Heneicosane (C21)	8.20	8.14	8.30	261024	262891	0.72
n-Docosane (C22)	8.71	8.64	8.82	286614	289669	1.07
n-Tetracosane (C24)	9.43	9.35	9.53	285060	281807	1.14
n-Hexacosane (C26)	9.98	9.90	10.08	281716	273274	3.00
n_Octacosane (C28)	10.45	10.37	10.55	282164	269570	4.46
n-Triacontane (C30)	10.87	10.78	10.98	285316	271633	4.80
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	267426	4.69
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	258968	4.07
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	256643	3.43
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	247000	2.77
n-Tetracontane (C40)	12.62	12.49	12.79	242270	237505	1.97
C9-C28	5.03	4.93	5.13	3531366	3388653	4.04
C28-C40	11.88	11.78	11.98	1720446	1575437	8.43
C9-C40	6.84	6.73	6.95	5473172	5006253	8.53

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0824.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	241627	2.12
n-Decane (C10)	1.47	1.40	1.55	242572	256540	5.76
n-Dodecane (C12)	2.84	2.78	2.93	248331	263197	5.99
n-Tetradecane (C14)	3.97	3.91	4.06	257899	273518	6.06
n-Hexadecane (C16)	4.94	4.87	5.03	266540	281610	5.65
n-Octadecane (C18)	5.84	5.77	5.93	273526	287926	5.26
n-Eicosane (C20)	7.36	7.31	7.47	275700	289863	5.14
n-Heneicosane (C21)	8.20	8.14	8.30	261024	263484	0.94
n-Docosane (C22)	8.71	8.64	8.82	286614	292669	2.11
n-Tetracosane (C24)	9.43	9.35	9.53	285060	288822	1.32
n-Hexacosane (C26)	9.98	9.90	10.08	281716	279142	0.91
n_Octacosane (C28)	10.45	10.37	10.55	282164	276823	1.89
n-Triacontane (C30)	10.87	10.78	10.98	285316	278842	2.27
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	274599	2.14
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	265960	1.48
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	263109	1.00
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	253783	0.10
n-Tetracontane (C40)	12.62	12.49	12.79	242270	246204	1.62
C9-C28	5.03	4.93	5.13	3531366	3500802	0.87
C28-C40	11.88	11.78	11.98	1720446	1641995	4.56
C9-C40	6.84	6.73	6.95	5473172	5200625	4.98

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0826.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	263986	11.57
n-Decane (C10)	1.47	1.40	1.55	242572	278221	14.70
n-Dodecane (C12)	2.84	2.78	2.93	248331	285503	14.97
n-Tetradecane (C14)	3.97	3.91	4.06	257899	296011	14.78
n-Hexadecane (C16)	4.94	4.87	5.03	266540	304300	14.17
n-Octadecane (C18)	5.84	5.77	5.93	273526	308799	12.90
n-Eicosane (C20)	7.36	7.31	7.47	275700	306442	11.15
n-Heneicosane (C21)	8.20	8.14	8.30	261024	275740	5.64
n-Docosane (C22)	8.71	8.64	8.82	286614	306873	7.07
n-Tetracosane (C24)	9.43	9.35	9.53	285060	299218	4.97
n-Hexacosane (C26)	9.98	9.90	10.08	281716	287147	1.93
n_Octacosane (C28)	10.45	10.37	10.55	282164	282118	0.02
n-Triacontane (C30)	10.87	10.78	10.98	285316	283387	0.68
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	279031	0.56
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	270880	0.34
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	268948	1.20
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	260483	2.54
n-Tetracontane (C40)	12.62	12.49	12.79	242270	252689	4.30
C9-C28	5.03	4.93	5.13	3531366	3594162	1.78
C28-C40	11.88	11.78	11.98	1720446	1665380	3.20
C9-C40	6.84	6.73	6.95	5473172	5312773	2.93

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0830.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	247694	4.69
n-Decane (C10)	1.47	1.40	1.55	242572	262075	8.04
n-Dodecane (C12)	2.84	2.78	2.93	248331	268761	8.23
n-Tetradecane (C14)	3.97	3.91	4.06	257899	278808	8.11
n-Hexadecane (C16)	4.94	4.87	5.03	266540	287440	7.84
n-Octadecane (C18)	5.84	5.77	5.93	273526	292619	6.98
n-Eicosane (C20)	7.36	7.31	7.47	275700	291488	5.73
n-Heneicosane (C21)	8.20	8.14	8.30	261024	261959	0.36
n-Docosane (C22)	8.71	8.64	8.82	286614	291973	1.87
n-Tetracosane (C24)	9.43	9.35	9.53	285060	284237	0.29
n-Hexacosane (C26)	9.98	9.90	10.08	281716	271952	3.47
n_Octacosane (C28)	10.45	10.37	10.55	282164	266681	5.49
n-Triacontane (C30)	10.87	10.78	10.98	285316	267168	6.36
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	262264	6.53
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	253462	6.11
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	252136	5.13
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	243934	3.98
n-Tetracontane (C40)	12.62	12.49	12.79	242270	236911	2.21
C9-C28	5.03	4.93	5.13	3531366	3404547	3.59
C28-C40	11.88	11.78	11.98	1720446	1563282	9.14
C9-C40	6.84	6.73	6.95	5473172	5019690	8.29

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0806.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 22:59
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	39468506	265.170 ng
Spiked Amount	100.000		Recovery =	265.17%
23) S	o-Terphenyl	6.40	72986512	261.466 ng
Spiked Amount	100.000		Recovery =	261.47%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61459143	259.759 ng
3) T	n-Decane (C10)	1.47	64748182	266.924 ng
4) T	n-Dodecane (C12)	2.85	66323285	267.076 ng
5) T	n-Tetradecane (C14)	3.97	68802429	266.781 ng
6) T	n-Hexadecane (C16)	4.94	70792086	265.597 ng
7) T	n-Octadecane (C18)	5.84	72241726	264.113 ng
8) T	n-Eicosane (C20)	7.36	72230894	259.428 ng
9) T	n-Heneicosane (C21)	8.20	65722699	251.788 ng
10) T	n-Docosane (C22)	8.71	72417365	252.665 ng
11) T	n-Tetracosane (C24)	9.43	70451679	247.147 ng
12) T	n-Hexacosane (C26)	9.98	68318515	242.509 ng
13) T	n-Octacosane (C28)	10.45	67392619	238.842 ng
14) T	n-Triacontane (C30)	10.87	67908365	238.011 ng
15) T	n-Dotriacontane (C32)	11.26	66856389	238.270 ng
16) T	n-Tetratriacontane (C34)	11.62	64741968	239.815 ng
17) T	n-Hexatriacontane (C36)	11.96	64160801	241.417 ng
18) T	n-Octatriacontane (C38)	12.28	61750077	243.079 ng
19) T	n-Tetracontane (C40)	12.62	59376269	245.083 ng
20) H	C9-C28	5.03	847163218	2878.817 ng
21) H	C28-C40	11.88	393859140	1373.571 ng
22) H	C9-C40	6.84	1251563174	4116.154 ng

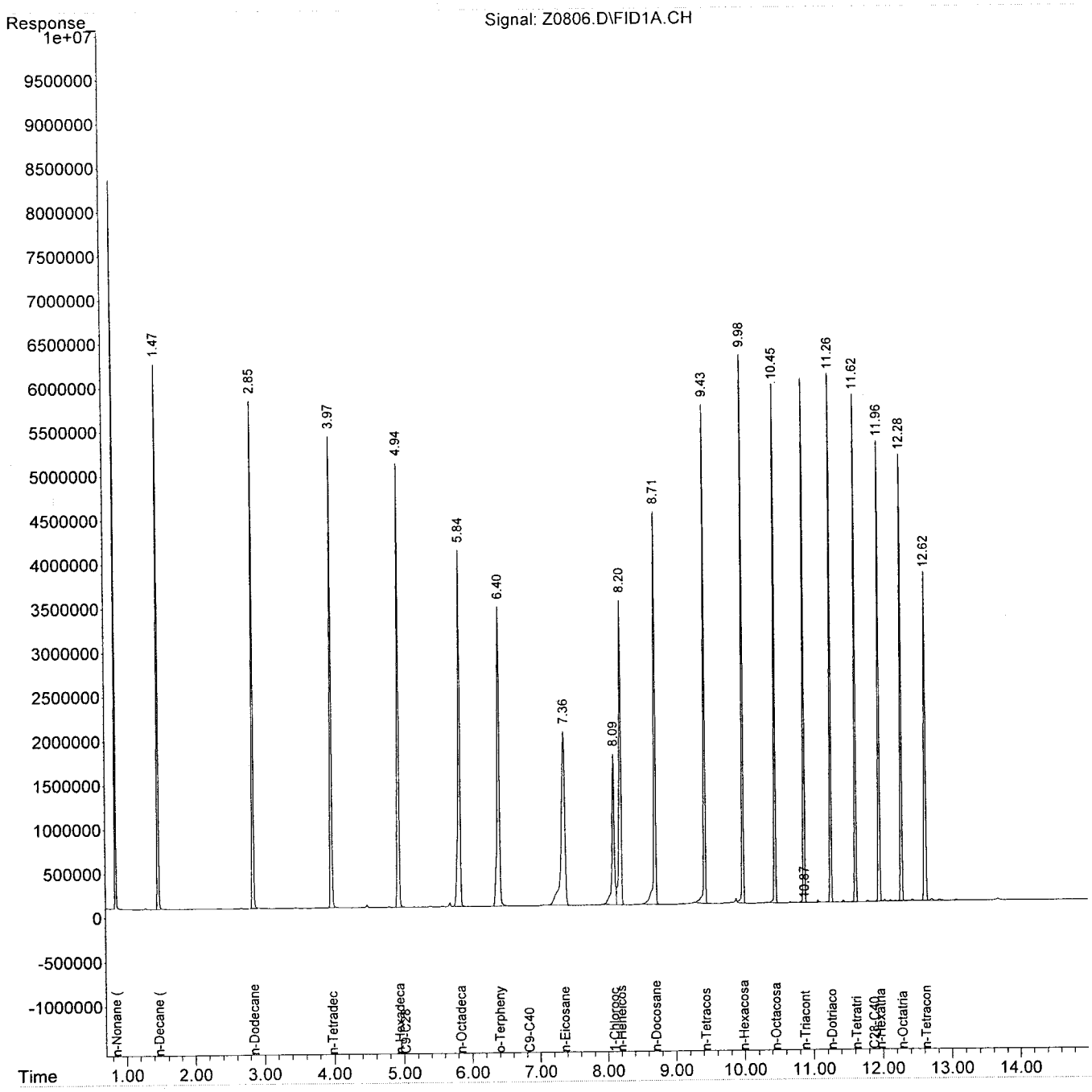
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0806.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 22:59
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09198 0333

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0824.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:38
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	40269064	270.549 ng
Spiked Amount	100.000		Recovery =	270.55%
23) S	o-Terphenyl	6.40	73357159	262.794 ng
Spiked Amount	100.000		Recovery =	262.79%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	60406859	255.312 ng
3) T	n-Decane (C10)	1.47	64134984	264.396 ng
4) T	n-Dodecane (C12)	2.84	65799275	264.966 ng
5) T	n-Tetradecane (C14)	3.97	68379499	265.141 ng
6) T	n-Hexadecane (C16)	4.94	70402422	264.135 ng
7) T	n-Octadecane (C18)	5.84	71981588	263.161 ng
8) T	n-Eicosane (C20)	7.36	72465823	260.272 ng
9) T	n-Heneicosane (C21)	8.20	65871049	252.356 ng
10) T	n-Docosane (C22)	8.71	73167350	255.282 ng
11) T	n-Tetracosane (C24)	9.43	72205574	253.300 ng
12) T	n-Hexacosane (C26)	9.98	69785502	247.716 ng
13) T	n-Octacosane (C28)	10.45	69205716	245.268 ng
14) T	n-Triacontane (C30)	10.87	69710536	244.328 ng
15) T	n-Dotriacontane (C32)	11.26	68649802	244.662 ng
16) T	n-Tetratriacontane (C34)	11.62	66490014	246.290 ng
17) T	n-Hexatriacontane (C36)	11.96	65777252	247.499 ng
18) T	n-Octatriacontane (C38)	12.28	63445745	249.754 ng
19) T	n-Tetracontane (C40)	12.62	61551081	254.060 ng
20) H	C9-C28	5.03	875200428	2974.093 ng
21) H	C28-C40	11.88	410498636	1431.601 ng
22) H	C9-C40	6.84	1300156248	4275.968 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

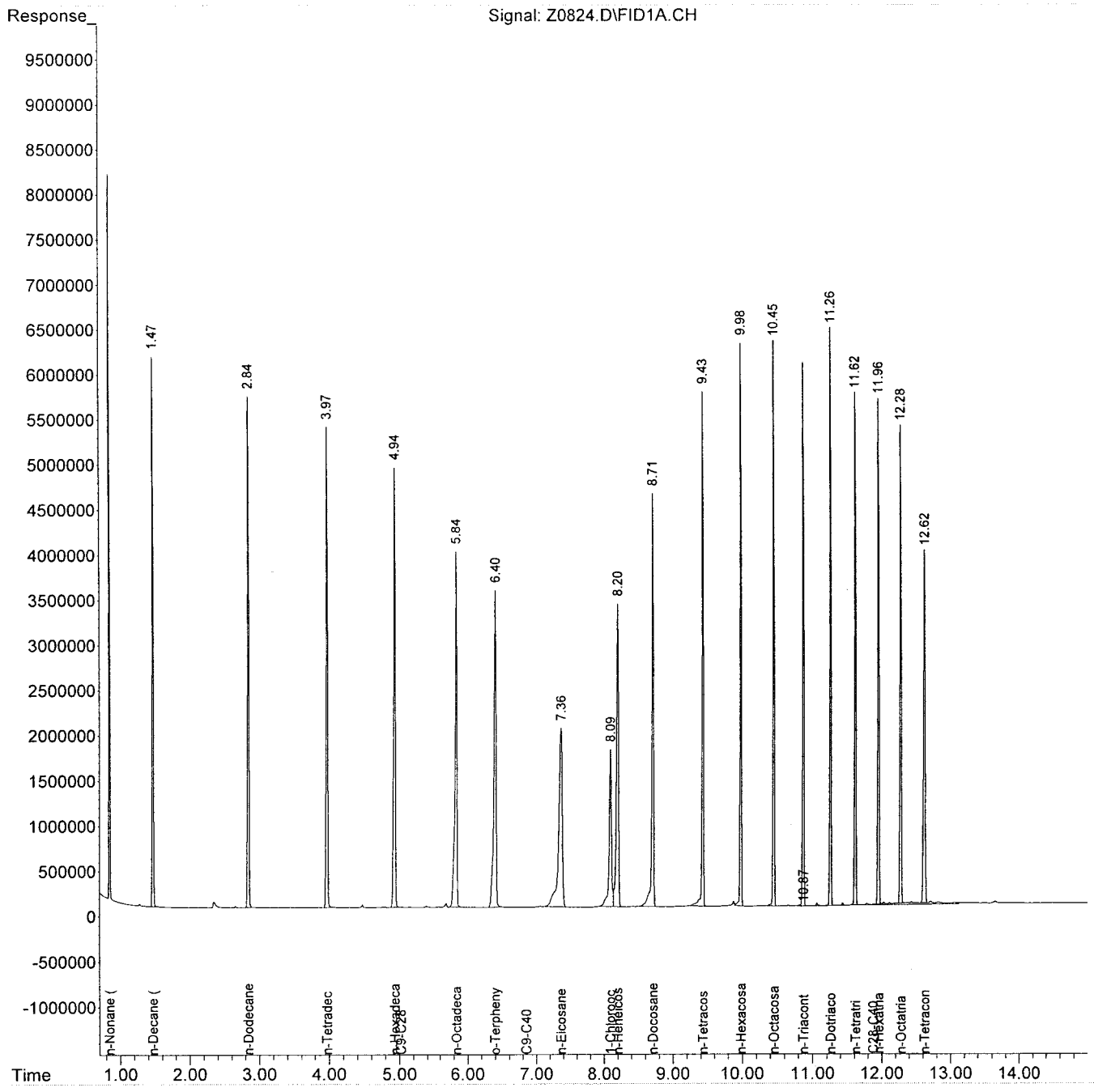
E13-09196 0334

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0824.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:38
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09196

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0826.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:08
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:35:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	43067511	289.350 ng
Spiked Amount	100.000		Recovery =	289.35%
23) S	o-Terphenyl	6.40	77912208	279.112 ng
Spiked Amount	100.000		Recovery =	279.11%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	65996489	278.936 ng
3) T	n-Decane (C10)	1.47	69555315	286.741 ng
4) T	n-Dodecane (C12)	2.84	71375659	287.421 ng
5) T	n-Tetradecane (C14)	3.97	74002698	286.945 ng
6) T	n-Hexadecane (C16)	4.94	76074905	285.417 ng
7) T	n-Octadecane (C18)	5.84	77199743	282.239 ng
8) T	n-Eicosane (C20)	7.36	76610434	275.158 ng
9) T	n-Heneicosane (C21)	8.20	68935120	264.095 ng
10) T	n-Docosane (C22)	8.71	76718363	267.671 ng
11) T	n-Tetracosane (C24)	9.43	74804468	262.417 ng
12) T	n-Hexacosane (C26)	9.98	71786860	254.820 ng
13) T	n-Octacosane (C28)	10.45	70529490	249.959 ng
14) T	n-Triacontane (C30)	10.87	70846849	248.310 ng
15) T	n-Dotriacontane (C32)	11.26	69757696	248.610 ng
16) T	n-Tetratriacontane (C34)	11.62	67720106	250.846 ng
17) T	n-Hexatriacontane (C36)	11.96	67237018	252.992 ng
18) T	n-Octatriacontane (C38)	12.28	65120755	256.348 ng
19) T	n-Tetracontane (C40)	12.62	63172172	260.751 ng
20) H	C9-C28	5.03	898540517	3053.407 ng
21) H	C28-C40	11.88	416345038	1451.990 ng
22) H	C9-C40	6.84	1328193139	4368.176 ng

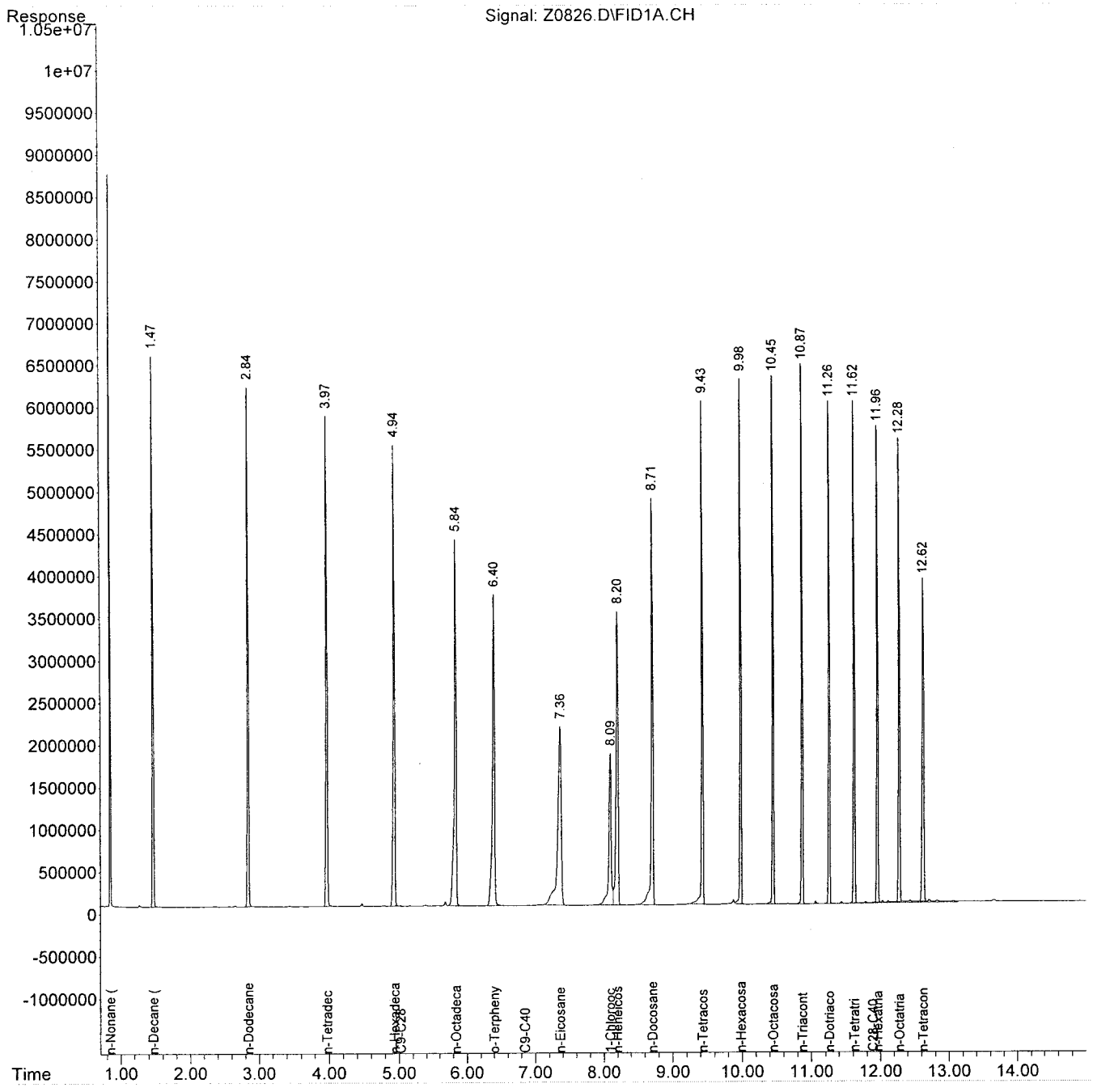
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0826.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:08
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:35:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09196

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0830.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:44
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 12:02:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	40809174	274.177 ng
Spiked Amount	100.000		Recovery =	274.18%
23) S	o-Terphenyl	6.40	73753071	264.212 ng
Spiked Amount	100.000		Recovery =	264.21%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61923491	261.722 ng
3) T	n-Decane (C10)	1.47	65518781	270.101 ng
4) T	n-Dodecane (C12)	2.84	67190374	270.567 ng
5) T	n-Tetradecane (C14)	3.97	69701996	270.269 ng
6) T	n-Hexadecane (C16)	4.94	71860086	269.603 ng
7) T	n-Octadecane (C18)	5.84	73154701	267.450 ng
8) T	n-Eicosane (C20)	7.36	72871997	261.731 ng
9) T	n-Heneicosane (C21)	8.20	65489857	250.896 ng
10) T	n-Docosane (C22)	8.71	72993234	254.674 ng
11) T	n-Tetracosane (C24)	9.43	71059291	249.278 ng
12) T	n-Hexacosane (C26)	9.98	67988040	241.336 ng
13) T	n-Octacosane (C28)	10.45	66670173	236.282 ng
14) T	n-Triacontane (C30)	10.87	66791885	234.098 ng
15) T	n-Dotriacontane (C32)	11.26	65565898	233.671 ng
16) T	n-Tetratriacontane (C34)	11.62	63365495	234.716 ng
17) T	n-Hexatriacontane (C36)	11.96	63034047	237.177 ng
18) T	n-Octatriacontane (C38)	12.28	60983384	240.061 ng
19) T	n-Tetracontane (C40)	12.62	59227866	244.470 ng
20) H	C9-C28	5.03	851136727	2892.320 ng
21) H	C28-C40	11.88	390820568	1362.974 ng
22) H	C9-C40	6.84	1254922506	4127.203 ng

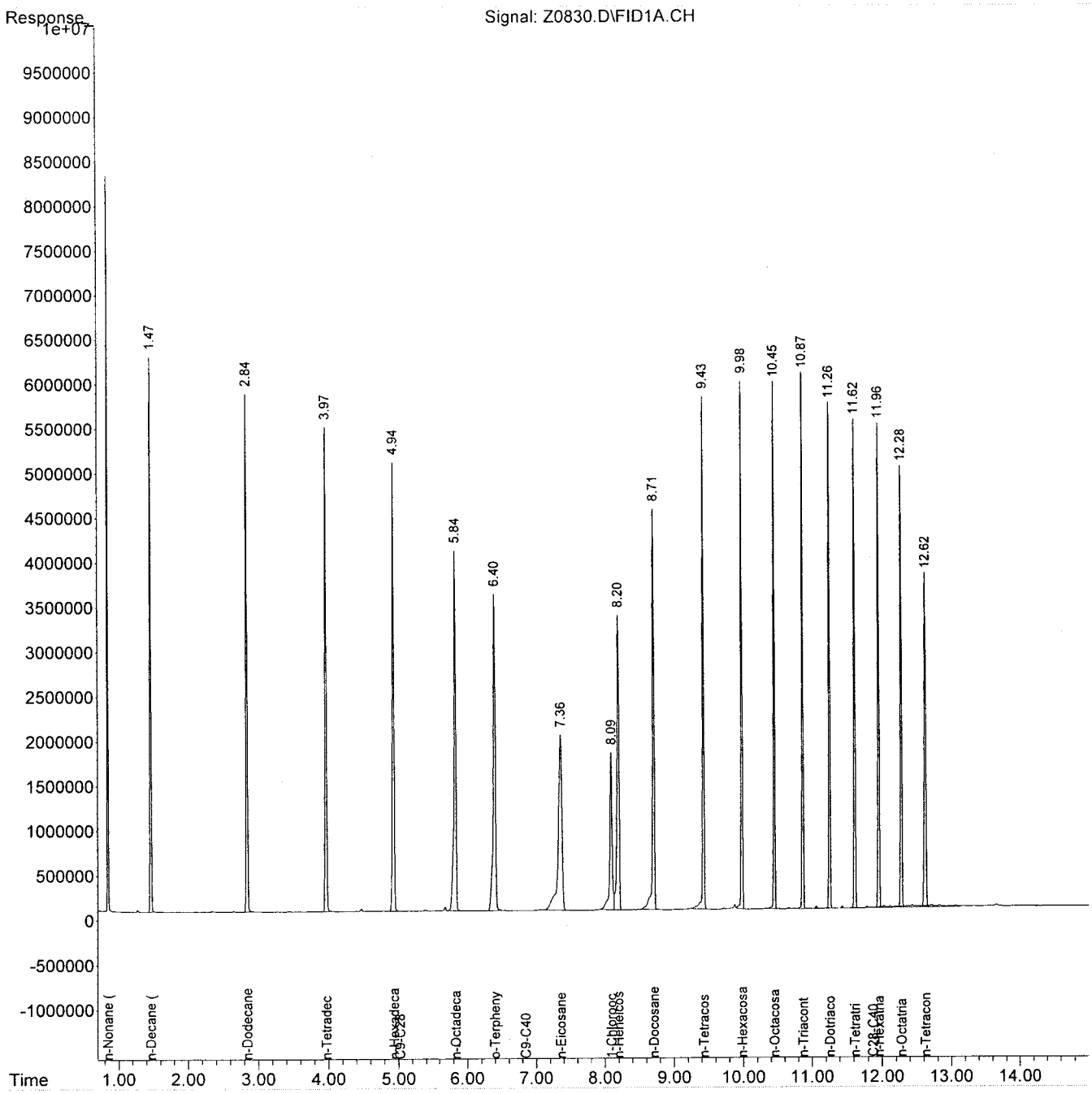
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0830.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:44
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 12:02:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0808.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:43
Operator : WP
Sample : NJ-EPH-C,LCSS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	13433471	90.253	ng	
Spiked Amount	100.000		Recovery =	90.25%		
23) S	o-Terphenyl	6.39	25819488	92.495	ng	
Spiked Amount	100.000		Recovery =	92.50%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	8452565	35.725	ng	
3) T	n-Decane (C10)	1.46	13383815	55.175	ng	
4) T	n-Dodecane (C12)	2.84	17823807	71.774	ng	
5) T	n-Tetradecane (C14)	3.97	20532517	79.615	ng	
6) T	n-Hexadecane (C16)	4.94	23365566	87.663	ng	
7) T	n-Octadecane (C18)	5.83	32125335	117.449	ng	
8) T	n-Eicosane (C20)	7.35	25719459	92.375	ng	
9) T	n-Heneicosane (C21)	8.19	29343713	112.418	ng	
10) T	n-Docosane (C22)	8.70	27976488	97.610	ng	
11) T	n-Tetracosane (C24)	9.43	26190566	91.877	ng	
12) T	n-Hexacosane (C26)	9.97	26415280	93.766	ng	
13) T	n-Octacosane (C28)	10.44	26979304	95.616	ng	m
14) T	n-Triacontane (C30)	10.87	26163625	91.701	ng	
15) T	n-Dotriacontane (C32)	11.25	24452231	87.146	ng	
16) T	n-Tetratriacontane (C34)	11.61	23159626	85.787	ng	
17) T	n-Hexatriacontane (C36)	11.95	18730258	70.476	ng	
18) T	n-Octatriacontane (C38)	12.27	15607542	61.439	ng	
19) T	n-Tetracontane (C40)	12.62	13989521	57.744	ng	
20) H	C9-C28	5.03	741277119	2518.997	ng	
21) H	C28-C40	11.88	225107995	785.057	ng	
22) H	C9-C40	6.84	973593480	3201.965	ng	

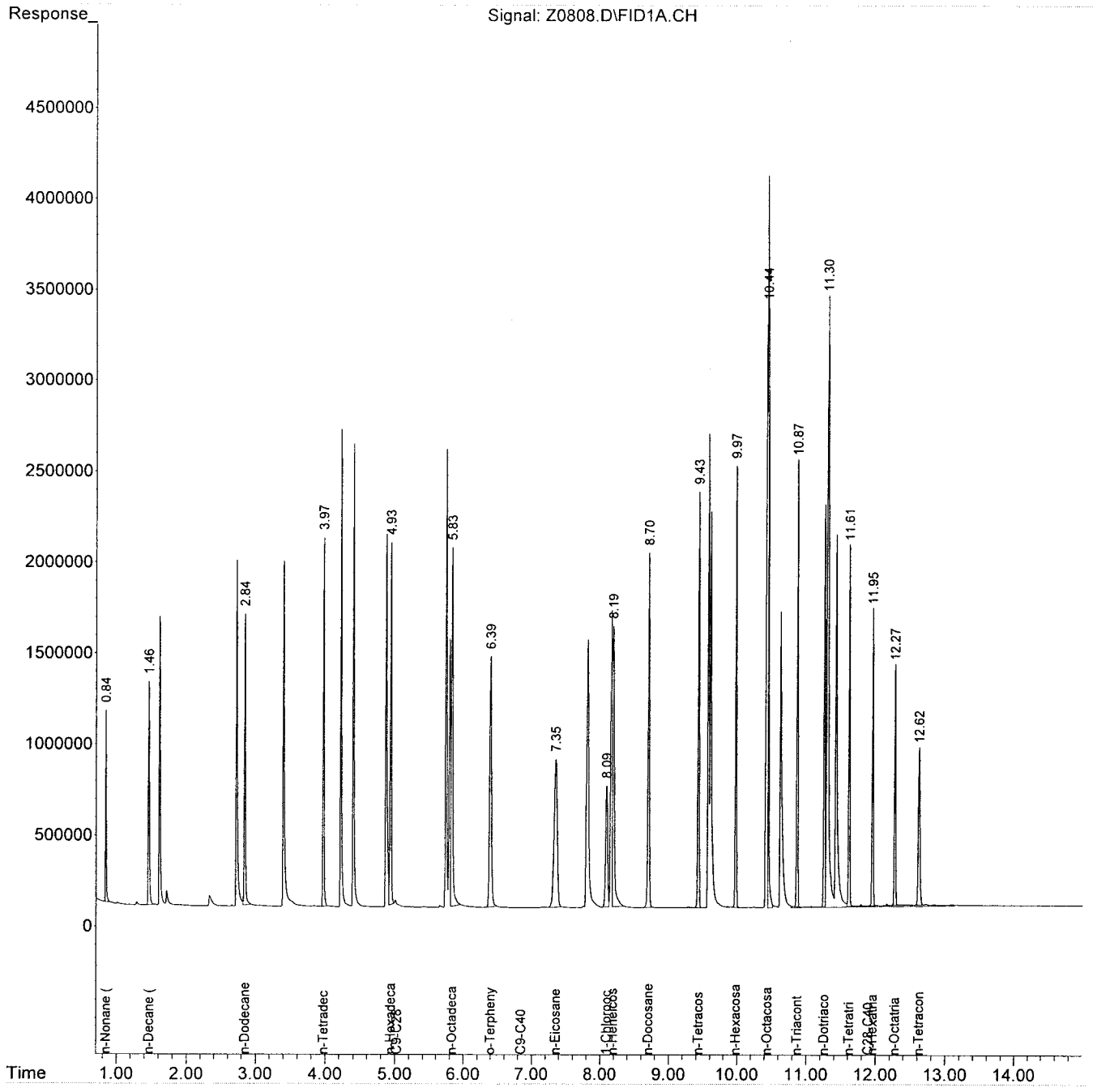
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0808.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:43
Operator : WP
Sample : NJ-EPH-C,LCSS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0809.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:05
Operator : WP
Sample : NJ-EPH-C,LCSDS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.09	13184532	88.581	ng	
Spiked Amount 100.000		Recovery =	88.58%		
23) S o-Terphenyl	6.39	25402548	91.002	ng	
Spiked Amount 100.000		Recovery =	91.00%		
Target Compounds					
2) T n-Nonane (C9)	0.84	8360697	35.337	ng	
3) T n-Decane (C10)	1.46	13270421	54.707	ng	
4) T n-Dodecane (C12)	2.84	17718666	71.351	ng	
5) T n-Tetradecane (C14)	3.97	20235938	78.465	ng	
6) T n-Hexadecane (C16)	4.94	23084850	86.609	ng	
7) T n-Octadecane (C18)	5.83	31888409	116.583	ng	
8) T n-Eicosane (C20)	7.35	25370928	91.124	ng	
9) T n-Heneicosane (C21)	8.19	29964512	114.796	ng	
10) T n-Docosane (C22)	8.70	27648943	96.467	ng	
11) T n-Tetracosane (C24)	9.43	25693935	90.135	ng	
12) T n-Hexacosane (C26)	9.98	26187105	92.956	ng	
13) T n-Octacosane (C28)	10.44	24924871	88.335	ng	m
14) T n-Triacontane (C30)	10.87	25894656	90.758	ng	
15) T n-Dotriacontane (C32)	11.25	24102356	85.899	ng	
16) T n-Tetratriacontane (C34)	11.61	22681800	84.017	ng	
17) T n-Hexatriacontane (C36)	11.95	18123474	68.193	ng	
18) T n-Octatriacontane (C38)	12.27	15031977	59.173	ng	
19) T n-Tetracontane (C40)	12.62	13547493	55.919	ng	
20) H C9-C28	5.03	729587394	2479.273	ng	
21) H C28-C40	11.88	221092863	771.054	ng	
22) H C9-C40	6.84	959779746	3156.534	ng	

(f)=RT Delta > 1/2 Window

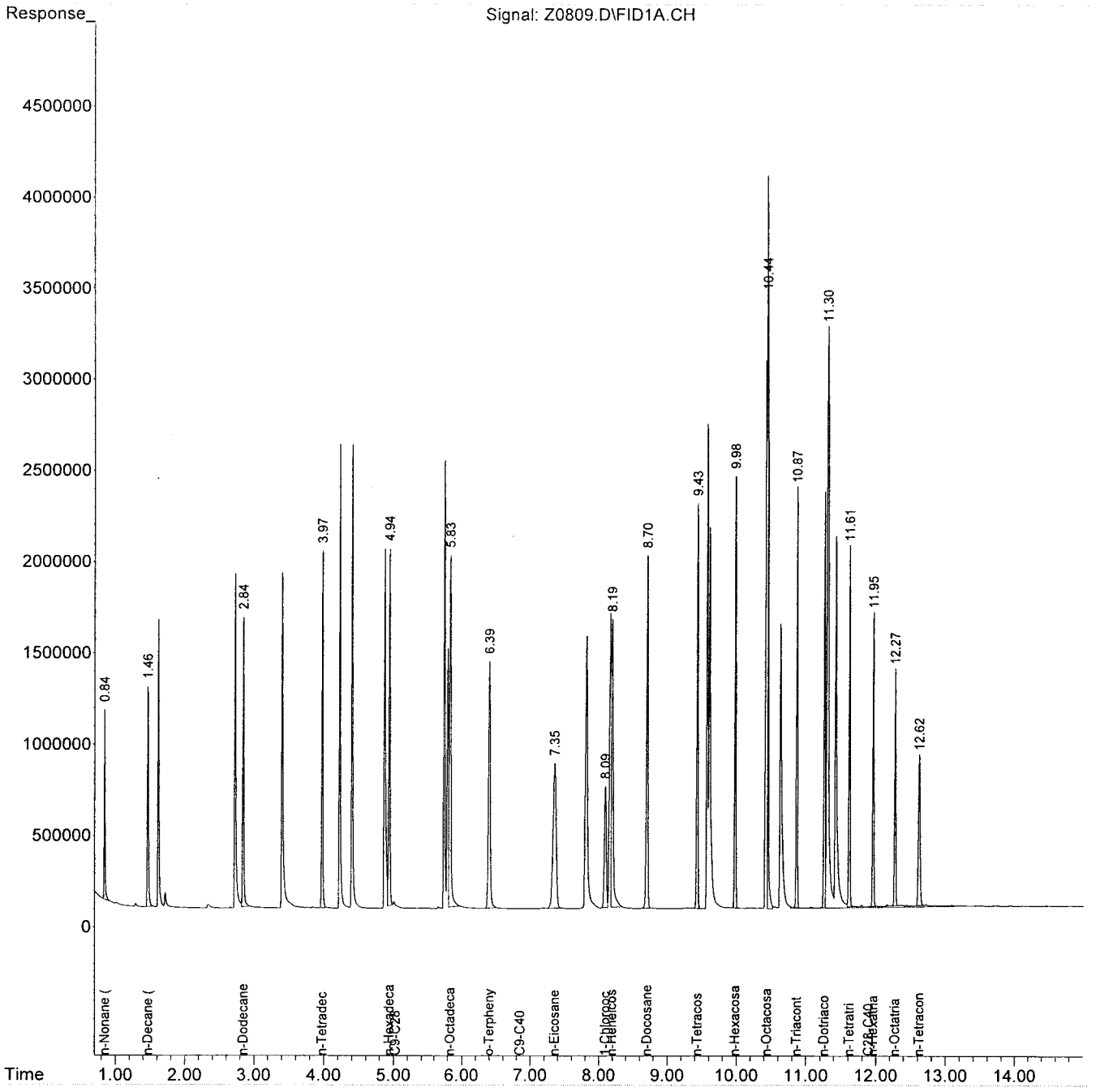
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0809.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:05
Operator : WP
Sample : NJ-EPH-C,LCSDS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0823.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:16
Operator : WP
Sample : NJ-EPH-C,09198-004MS,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:09:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	11235381	75.485	ng	
Spiked Amount	100.000		Recovery =	75.48%		
23) S	o-Terphenyl	6.39	21701384	77.743	ng	
Spiked Amount	100.000		Recovery =	77.74%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	7600081	32.122	ng	
3) T	n-Decane (C10)	1.46	11548542	47.609	ng	
4) T	n-Dodecane (C12)	2.84	14804169	59.615	ng	
5) T	n-Tetradecane (C14)	3.97	17086951	66.254	ng	
6) T	n-Hexadecane (C16)	4.93	19300175	72.410	ng	
7) T	n-Octadecane (C18)	5.83	25200688	92.133	ng	m
8) T	n-Eicosane (C20)	7.35	21249681	76.321	ng	
9) T	n-Heneicosane (C21)	8.18	24582609	94.178	ng	m
10) T	n-Docosane (C22)	8.70	22929923	80.003	ng	
11) T	n-Tetracosane (C24)	9.43	21155072	74.213	ng	
12) T	n-Hexacosane (C26)	9.97	21368098	75.850	ng	
13) T	n-Octacosane (C28)	10.44	21557233	76.400	ng	m
14) T	n-Triacontane (C30)	10.87	21110395	73.990	ng	
15) T	n-Dotriacontane (C32)	11.25	19898544	70.917	ng	
16) T	n-Tetratriacontane (C34)	11.61	19354511	71.692	ng	
17) T	n-Hexatriacontane (C36)	11.95	16029315	60.313	ng	
18) T	n-Octatriacontane (C38)	12.27	12488797	49.162	ng	
19) T	n-Tetracontane (C40)	12.62	11095834	45.799	ng	
20) H	C9-C28	5.03	605476510	2057.521	ng	
21) H	C28-C40	11.88	194717509	679.071	ng	
22) H	C9-C40	6.84	820855476	2699.638	ng	

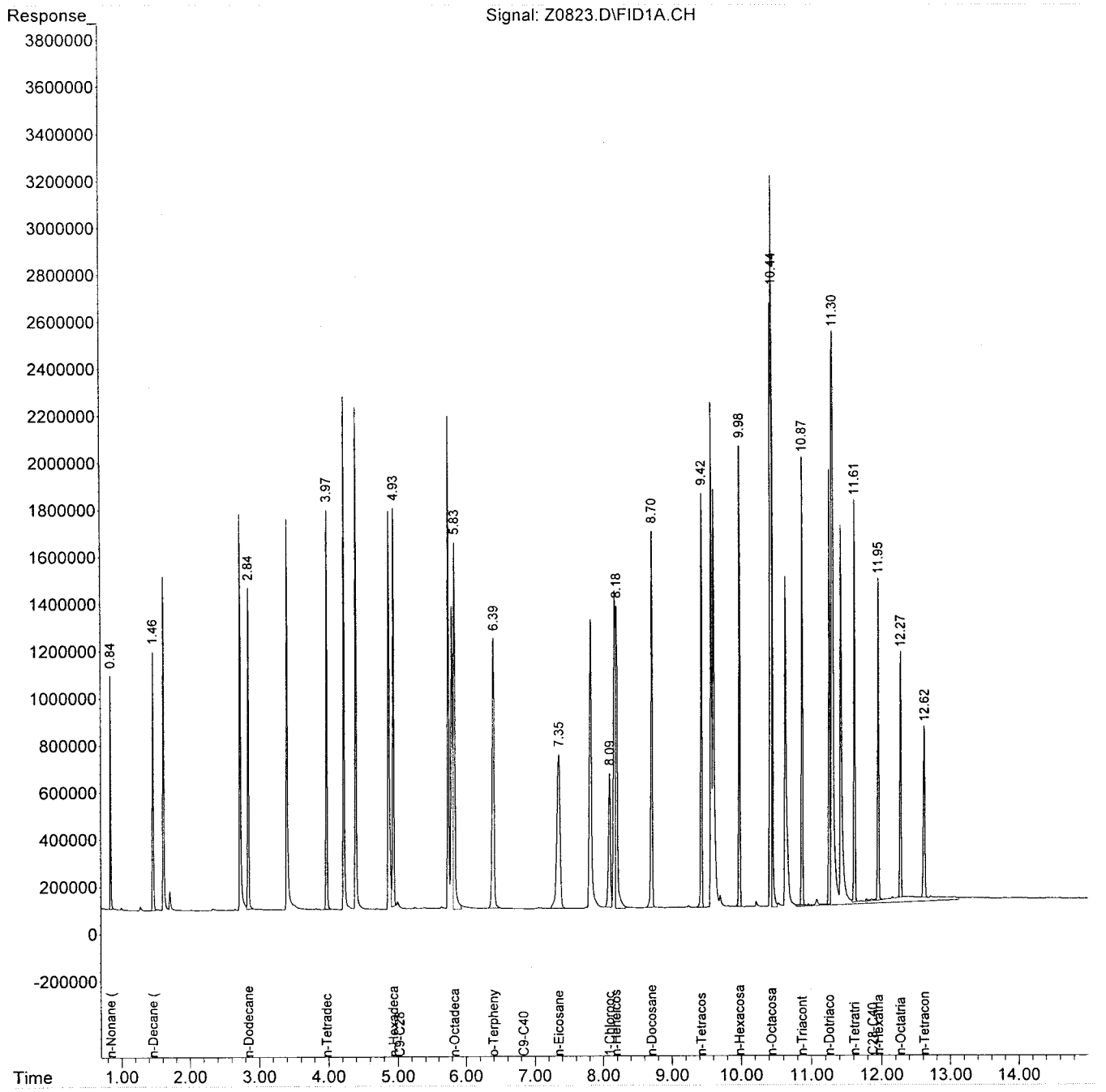
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0823.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:16
Operator : WP
Sample : NJ-EPH-C,09198-004MS,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:09:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	11875881	79.788 ng
Spiked Amount 100.000		Recovery =	79.79%
23) S o-Terphenyl	6.39	23982725	85.915 ng
Spiked Amount 100.000		Recovery =	85.92%
Target Compounds			
22) H C9-C40	6.84	80350863	264.259 ng

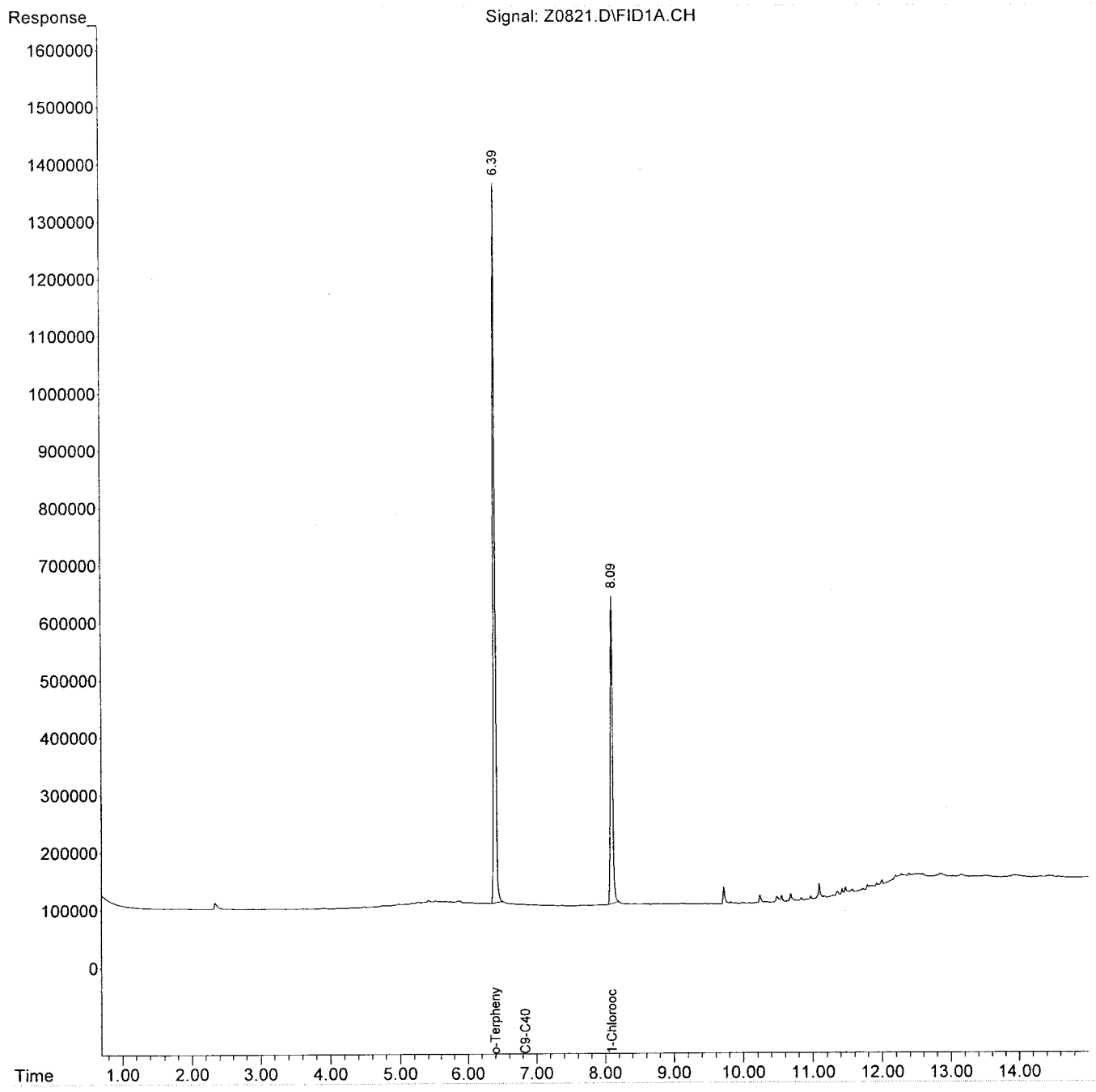
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09198

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0822.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:54
Operator : WP
Sample : AOC-12-4,09198-4D,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	12030287	80.826 ng
Spiked Amount 100.000		Recovery =	80.83%
23) S o-Terphenyl	6.39	24456093	87.611 ng
Spiked Amount 100.000		Recovery =	87.61%
Target Compounds			
22) H C9-C40	6.84	82029218	269.779 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

WP

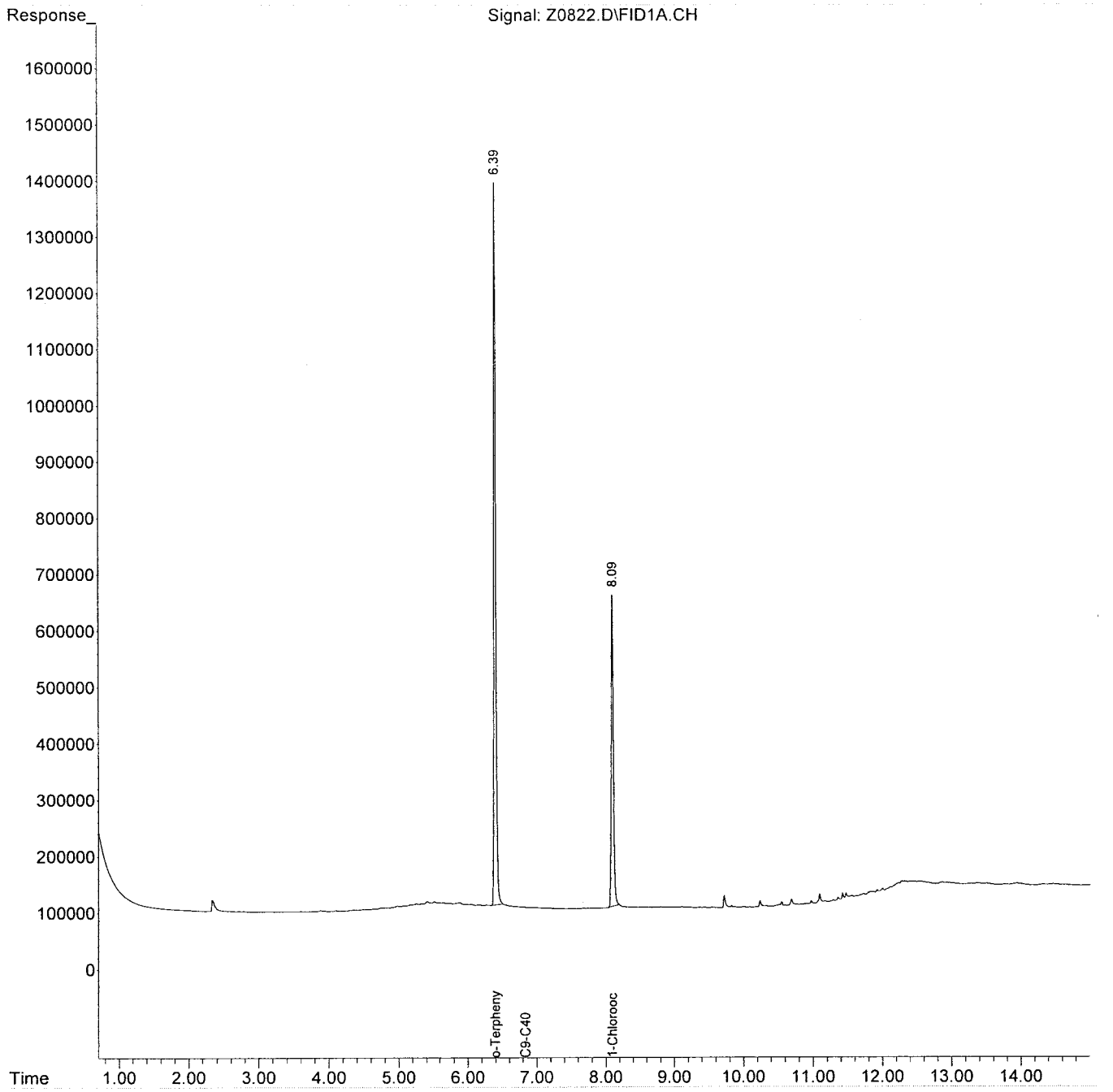
E13-09196 0349

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0822.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:54
Operator : WP
Sample : AOC-12-4,09198-4D,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: BLKS130919-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: Z0807.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
C9-C40	ND		36.0	9.00

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0807.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:21
Operator : WP
Sample : NJ-EPH-C,BLKS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.10	10983605	73.794	ng	m
Spiked Amount 100.000		Recovery =	73.79%		
23) S o-Terphenyl	6.40	20973388	75.135	ng	
Spiked Amount 100.000		Recovery =	75.14%		
Target Compounds					

(f)=RT Delta > 1/2 Window (m)=manual int.

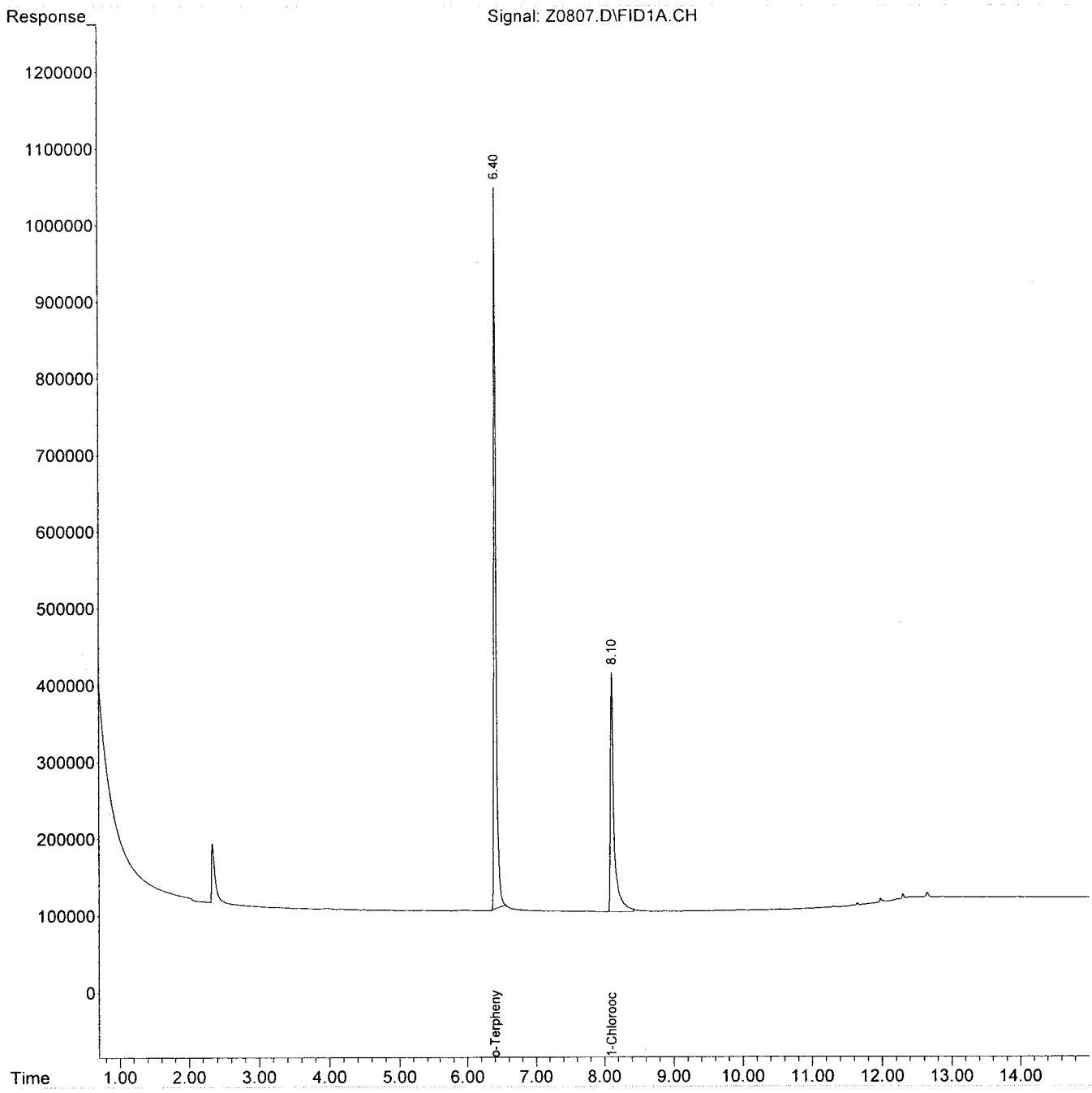
E13-09196 0352

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0807.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:21
Operator : WP
Sample : NJ-EPH-C,BLKS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON

FRACTIOANTED
EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS130923-15	SOIL	68	
ALI	LCSS130923-15	SOIL	74	
ALI	LCSDS130923-15	SOIL	78	
SW-207	09273-008	SOIL	116	
G-41/1.5	09263-002	SOIL	44	
AOC-2-4/	09135-004	SOIL	53	
C-2_LOAD	09196-002	SOLID	57	
C-3_BLD_	09196-003	SOLID	52	
C-4_IMP.	09196-004	SOLID	48	
C-5_SPHI	09196-005	SOLID	56	
AOC-7-2/	09197-004	SOIL	46	
AOC-7-3/	09197-005	SOIL	46	
AOC-7-4/	09197-006	SOIL	57	
SW-207	09273-8D	SOIL	113	
ALI	09273-008MS	SOIL	65	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS130923-15	SOIL	80		81		73	
ARO	LCSS130923-15	SOIL	73		52		67	
ARO	LCSDS130923-15	SOIL	70		49		64	
SW-207	09273-008	SOIL	70		88		94	
G-41/1.5	09263-002	SOIL	76		84		55	
AOC-2-4/	09135-004	SOIL	83		78		73	
C-2_LOAD	09196-002	SOLID	79		86		60	
C-3_BLD_	09196-003	SOLID	81		78		61	
C-4_IMP.	09196-004	SOLID	83		83		59	
C-5_SPHI	09196-005	SOLID	80		79		54	
AOC-7-2/	09197-004	SOIL	97		96		69	
AOC-7-3/	09197-005	SOIL	106		91		89	
AOC-7-4/	09197-006	SOIL	91		80		89	
SW-207	09273-8D	SOIL	81		89		76	
ARO	09273-008MS	SOIL	76		83		73	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130923-15
Client ID: ALI
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: U6385.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	50	0.00	26	52	27	54	4
n-Decane (C10)	50	0.00	36	72	38	76	5
n-Dodecane (C12)	50	0.00	41	82	43	86	5
n-Tetradecane (C14)	50	0.00	45	90	47	94	4
n-Hexadecane (C16)	50	0.00	47	94	50	100	6
n-Octadecane (C18)	50	0.00	47	94	51	102	8
n-Eicosane (C20)	50	0.00	46	92	49	98	6
n-Heneicosane (C21)	50	0.00	43	86	46	92	7
n-Docosane (C22)	50	0.00	48	96	51	102	6
n-Tetracosane (C24)	50	0.00	43	86	45	90	5
n-Hexacosane (C26)	50	0.00	45	90	46	92	2
n-Octacosane (C28)	50	0.00	46	92	47	94	2
n-Triacontane (C30)	50	0.00	47	94	48	96	2
n-Dotriacontane (C32)	50	0.00	46	92	46	92	0
n-Tetratriacontane (C34)	50	0.00	47	94	48	96	2
n-Hexatriacontane (C36)	50	0.00	44	88	45	90	2
n-Octatriacontane (C38)	50	0.00	43	86	44	88	2
n-Tetracontane (C40)	50	0.00	44	88	45	90	2
C9-C12	150	0.00	63	42	65	43	3
C12-C16	100	0.00	92	92	98	98	6
C16-C21	150	0.00	139	93	148	99	6
C21-C40	500	0.00	484	97	494	99	2

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130923-15
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: UB4460.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	29	58	27	54	7
Napthalene	50	0.00	37	74	35	70	6
2-Methylnaphthalene	50	0.00	39	78	37	74	5
Acenaphthylene	50	0.00	39	78	37	74	5
Acenaphthene	50	0.00	49	98	48	96	2
Fluorene	50	0.00	39	78	37	74	5
Phenanthrene	50	0.00	42	84	40	80	5
Anthracene	50	0.00	44	88	41	82	7
Fluoroanthene	50	0.00	43	86	41	82	5
Pyrene	50	0.00	44	88	42	84	5
Benzo[a]anthracene	50	0.00	41	82	39	78	5
Chrysene	50	0.00	49	98	47	94	4
Benzo[b]fluoranthene	50	0.00	45	90	42	84	7
Benzo[k]fluoranthene	50	0.00	45	90	42	84	7
Benzo[a]pyrene	50	0.00	40	80	37	74	8
Indeno[1,2,3-cd]pyrene	50	0.00	44	88	42	84	5
Dibenz[a,h]anthracene	50	0.00	44	88	42	84	5
Benzo[g,h,i]perylene	50	0.00	43	86	42	84	2
C10-C12	100	0.00	68	68	64	64	6
C12-C16	150	0.00	125	83	120	80	4
C16-C21	250	0.00	222	89	213	85	4
C21-C36	400	0.00	365	91	346	87	5

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09273-008MS
Client ID: ALI
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: U6397.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 11.9

Compound	Conc. Add	Sample	MS Conc.	%Rec.	
C9-C12	150	0	150	100	
C12-C16	100	8908	8933	25	*
C16-C21	150	27758	30613	1903	*
C21-C40	500	9609	11848	448	*

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 09273-008MS
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: UB4472.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 11.9

Compound	Conc. Add	Sample	MS Conc.	%Rec.	
C10-C12	100	0	69	69	
C12-C16	150	369	431	41	
C16-C21	250	5257	5333	30	*
C21-C36	400	1355	1370	4	*

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: SW-207
Date Received: 09/19/2013
Date Extracted: 09/23/2013
Lab ID: 09273-008
Sample wt/vol: 5.00g
Date Analyzed: 09/24/2013
Aliphatics Sample Data file: U6386.D
Dilution Factor: 5
Date Analyzed: 09/24/2013
Aromatics Sample Data file: UB4461.D
Dilution Factor: 1

GC Column: HP-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.9
Lab ID: 09273-8D
Sample wt/vol: 5.00g
Date Analyzed: 09/25/2013
Aliphatics Sample Dup Data file: U6396.D
Dilution Factor: 5
Date Analyzed: 09/25/2013
Aromatics Sample Dup Data file: UB4471.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NC
C12-C16 Aliphatics	2020	1900	6
C16-C21 Aliphatics	6300	5750	9
C21-C40 Aliphatics	2180	2100	4
Total Aliphatics	10500	9750	7
C10-C12 Aromatics	ND	ND	NC
C12-C16 Aromatics	83.8	71.9	15
C16-C21 Aromatics	1190	1100	8
C21-C36 Aromatics	308	265	15
Total Aromatics	1580	1440	9
Total NJ-EPH	12100	11200	8

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NC Not calculable

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	U6383.D	Instrument ID:	GC-U
Date Extracted:	09/23/2013	Matrix:	SOIL
Date Analyzed:	09/24/2013	Time Analyzed:	16:31

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS130923-15	09/24/2013	17:05
ALI	LCSDS130923-15	09/24/2013	17:38
SW-207	09273-008	09/24/2013	18:11
G-41/1.5	09263-002	09/24/2013	18:45
AOC-2-4/	09135-004	09/24/2013	19:51
C-2_LOAD	09196-002	09/24/2013	20:25
C-3_BLD_	09196-003	09/24/2013	21:31
C-4_IMP.	09196-004	09/24/2013	22:05
C-5_SPHI	09196-005	09/24/2013	23:11
AOC-7-2/	09197-004	09/24/2013	23:45
AOC-7-3/	09197-005	09/25/2013	00:51
AOC-7-4/	09197-006	09/25/2013	01:58
SW-207	09273-8D	09/25/2013	03:04
ALI	09273-008MS	09/25/2013	03:37

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: UB4458.D

Instrument ID: GC-U

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 16:31

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS130923-15	09/24/2013	17:05
ARO	LCSDS130923-15	09/24/2013	17:38
SW-207	09273-008	09/24/2013	18:11
G-41/1.5	09263-002	09/24/2013	18:45
AOC-2-4/	09135-004	09/24/2013	19:18
C-2_LOAD	09196-002	09/24/2013	20:25
C-3_BLD_	09196-003	09/24/2013	20:58
C-4_IMP.	09196-004	09/24/2013	22:05
C-5_SPHI	09196-005	09/24/2013	22:38
AOC-7-2/	09197-004	09/24/2013	23:45
AOC-7-3/	09197-005	09/25/2013	00:51
AOC-7-4/	09197-006	09/25/2013	01:58
SW-207	09273-8D	09/25/2013	03:04
ARO	09273-008MS	09/25/2013	03:37

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** HP-5

Surrogate RT from initial calibration :

COD 11.67

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS130923-15	09/24/2013	16:31	11.67	
ALI	LCSS130923-15	09/24/2013	17:05	11.67	
ALI	LCSDS130923-15	09/24/2013	17:38	11.67	
SW-207	09273-008	09/24/2013	18:11	11.69	
G-41/1.5	09263-002	09/24/2013	18:45	11.67	
AOC-2-4/	09135-004	09/24/2013	19:51	11.68	
C-2_LOAD	09196-002	09/24/2013	20:25	11.68	
C-3_BLD_	09196-003	09/24/2013	21:31	11.68	
C-4_IMP.	09196-004	09/24/2013	22:05	11.67	
C-5_SPHI	09196-005	09/24/2013	23:11	11.68	
AOC-7-2/	09197-004	09/24/2013	23:45	11.67	
AOC-7-3/	09197-005	09/25/2013	00:51	11.67	
AOC-7-4/	09197-006	09/25/2013	01:58	11.67	
SW-207	09273-8D	09/25/2013	03:04	11.69	
ALI	09273-008MS	09/25/2013	03:37	11.69	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** HP-5

Surrogate RT from initial calibration :

FBP 4.30 **BNP** 5.32 **OTP** 9.54

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS130923-15	09/24/2013	16:31	4.30		5.32		9.54	
ARO	LCSS130923-15	09/24/2013	17:05	4.30		5.30		9.54	
ARO	LCSDS130923-15	09/24/2013	17:38	4.30		5.30		9.54	
SW-207	09273-008	09/24/2013	18:11	4.30		5.31		9.56	
G-41/1.5	09263-002	09/24/2013	18:45	4.30		5.31		9.54	
AOC-2-4/	09135-004	09/24/2013	19:18	4.29		5.30		9.55	
C-2_LOAD	09196-002	09/24/2013	20:25	4.30		5.30		9.54	
C-3_BLD_	09196-003	09/24/2013	20:58	4.30		5.31		9.54	
C-4_IMP.	09196-004	09/24/2013	22:05	4.30		5.30		9.54	
C-5_SPHI	09196-005	09/24/2013	22:38	4.30		5.31		9.54	
AOC-7-2/	09197-004	09/24/2013	23:45	4.30		5.30		9.54	
AOC-7-3/	09197-005	09/25/2013	00:51	4.29		5.30		9.55	
AOC-7-4/	09197-006	09/25/2013	01:58	4.29		5.29		9.55	
SW-207	09273-8D	09/25/2013	03:04	4.29		5.30		9.55	
ARO	09273-008MS	09/25/2013	03:37	4.29		5.29		9.56	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

	Fraction Data file:	Fraction Data file:
Lab ID: LCSS130923-15	Aliphatic U6384.D	Aromatic UB4459.D
Lab ID: LCSDS130923-15	Aliphatic U6385.D	Aromatic UB4460.D

Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	36.8	0.0	0.0	34.8	0.0	0.0	Pass
2-Methylnaphthalene	38.5	0.0	0.0	36.7	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6389.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 20:25
Operator : PSL
Sample : C-2_LOAD,09196-002,Xs,5.21g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,5
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:01:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	11.68	2372485	5.669	ng	m
Spiked Amount 50.000		Recovery = 11.34%			
Target Compounds					
21) H C12-C16	5.20	42428220	69.866	ng	
22) H C16-C21	9.65	715997847	1282.960	ng	
23) H C21-C40	18.70	1283933514	2183.432	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

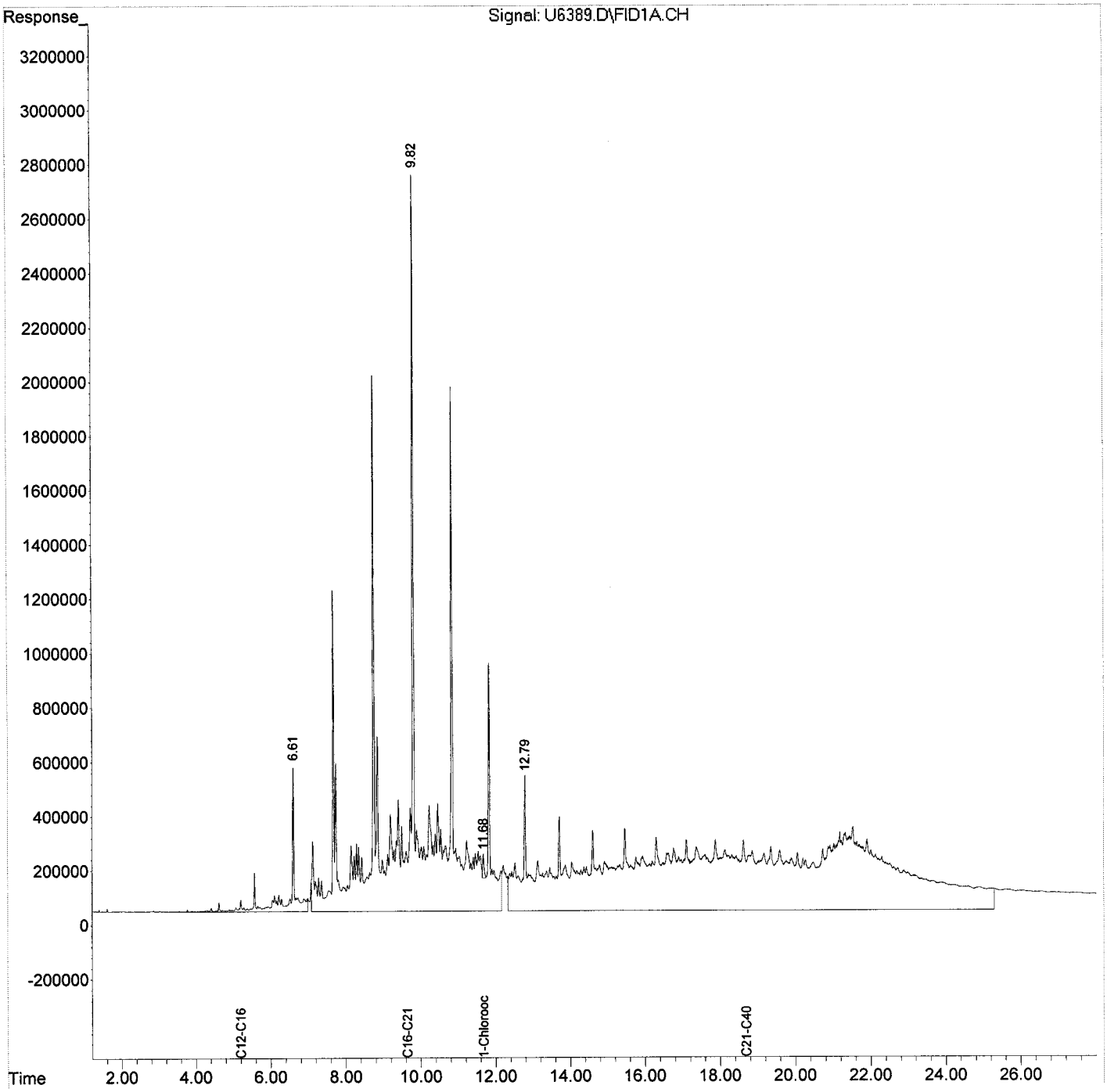
E13-09196 0369

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6389.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 20:25
Operator : PSL
Sample : C-2_LOAD,09196-002,Xs,5.21g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,5
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:01:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4464.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 20:25
Operator : PSL
Sample : C-2_LOAD,09196-002,Xs,5.21g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:44:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.30	34541691	39.558	ng	
Spiked Amount 50.000		Recovery =	79.12%		
2) S 2-Bromonaphthalene	5.30	23183320	42.868	ng	
Spiked Amount 50.000		Recovery =	85.74%		
3) S o-Terphenyl	9.54	21814312	30.098	ng	m
Spiked Amount 50.000		Recovery =	60.20%		
Target Compounds					
23) H C12-C16	4.95	18268421	22.327	ng	
24) H C16-C21	9.60	716875384	837.159	ng	
25) H C21-C36	17.20	1013329840	1142.280	ng	

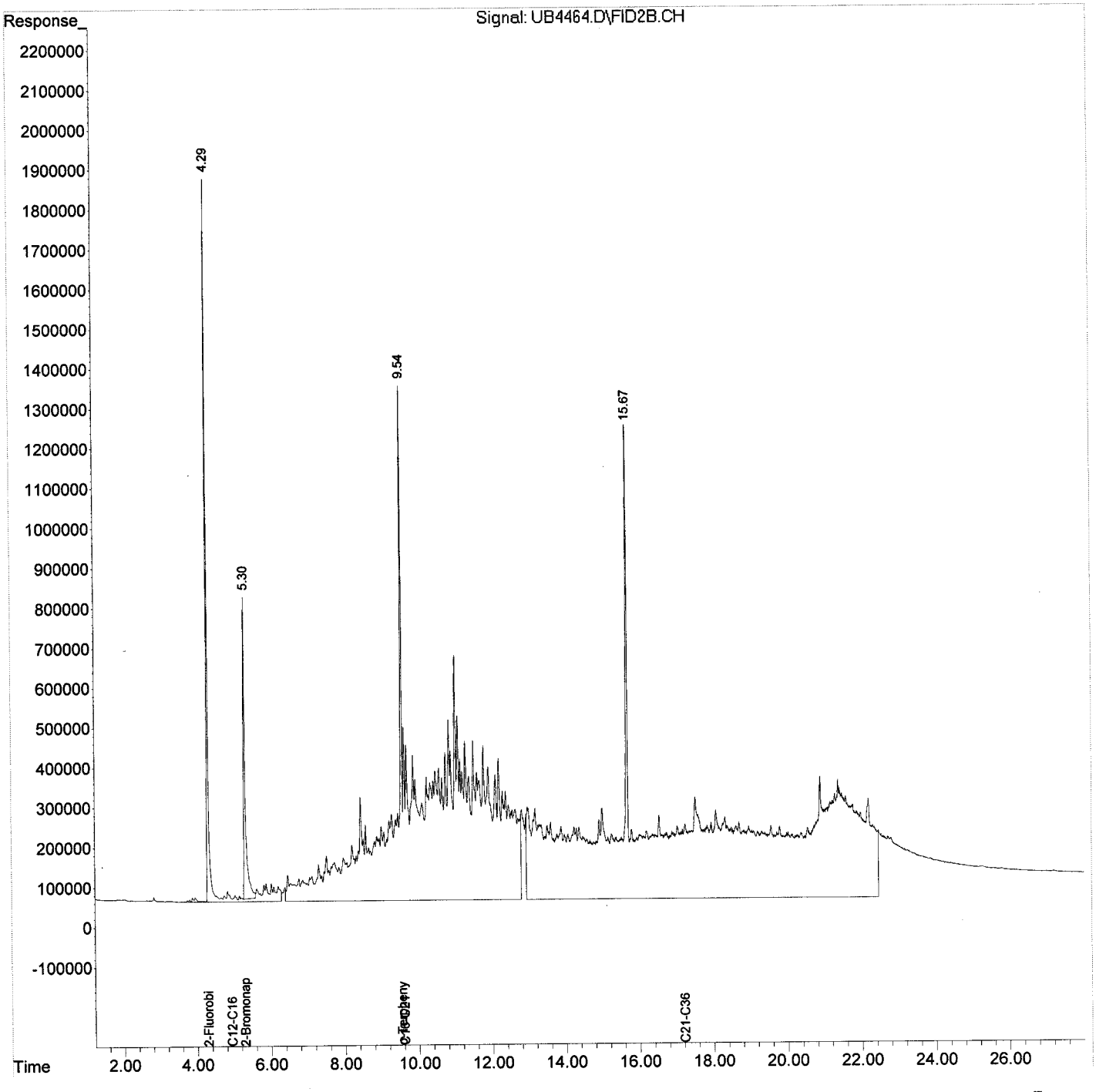
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4464.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 20:25
Operator : PSL
Sample : C-2_LOAD,09196-002,Xs,5.21g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:44:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6390.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 21:31
Operator : PSL
Sample : C-3_BLD_,09196-003,Xs,5.11g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 08:15:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	11.68	10888329	26.017 ng
Spiked Amount	50.000		Recovery =	52.03%
Target Compounds				
22) H	C16-C21	9.65	787816196	1411.647 ng
23) H	C21-C40	18.70	9342729637	15888.059 ng

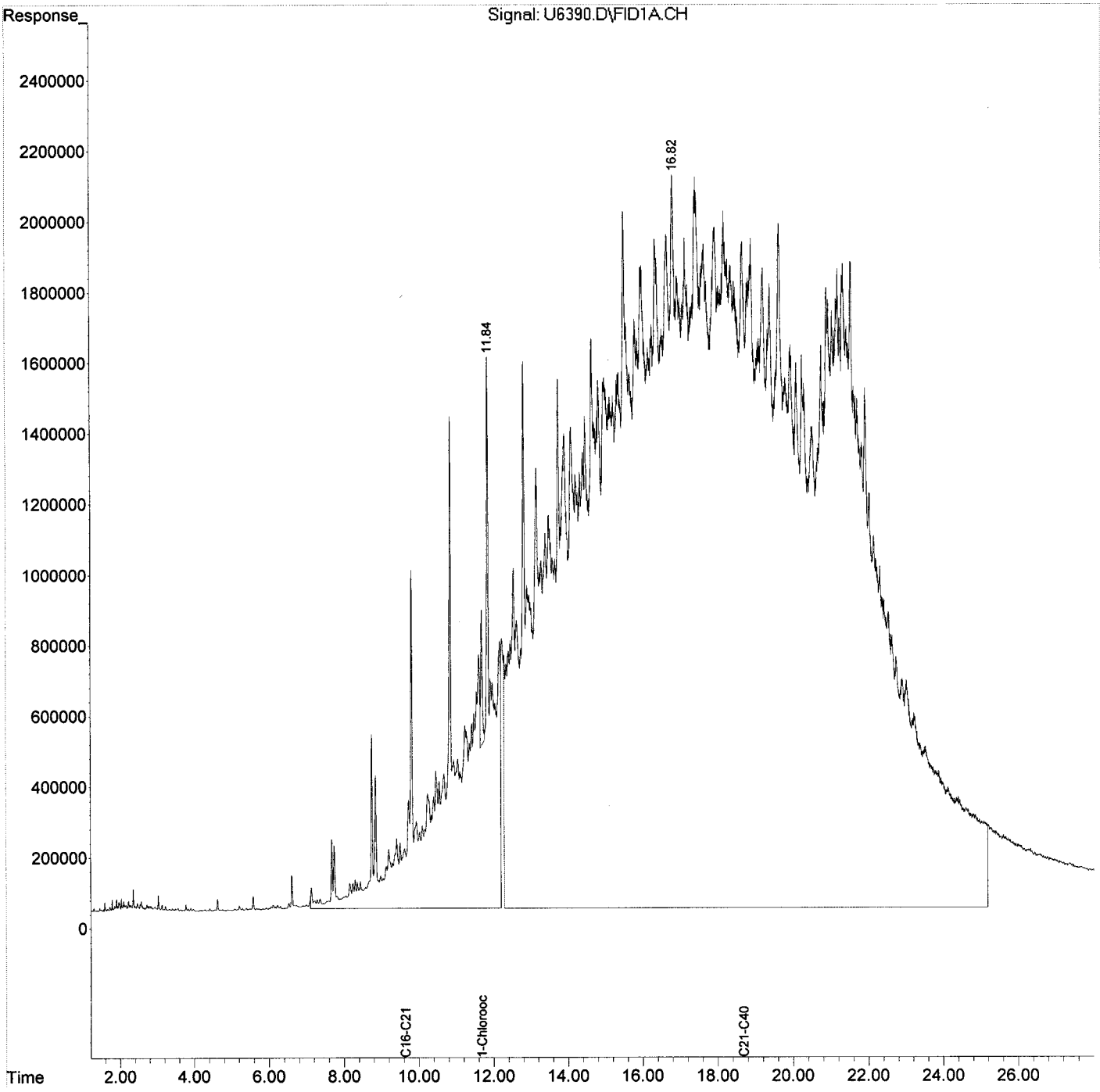
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6390.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 21:31
Operator : PSL
Sample : C-3_BLD_,09196-003,Xs,5.11g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 08:15:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4465.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 20:58
Operator : PSL
Sample : C-3_BLD_,09196-003,Xs,5.11g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:29:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.30	35233597	40.351 ng
Spiked Amount 50.000		Recovery =	80.70%
2) S 2-Bromonaphthalene	5.31	21186589	39.176 ng
Spiked Amount 50.000		Recovery =	78.35%
3) S o-Terphenyl	9.54	22210489	30.644 ng m
Spiked Amount 50.000		Recovery =	61.29%
Target Compounds			
24) H C16-C21	9.60	268408141	313.444 ng
25) H C21-C36	17.20	1228253562	1384.554 ng

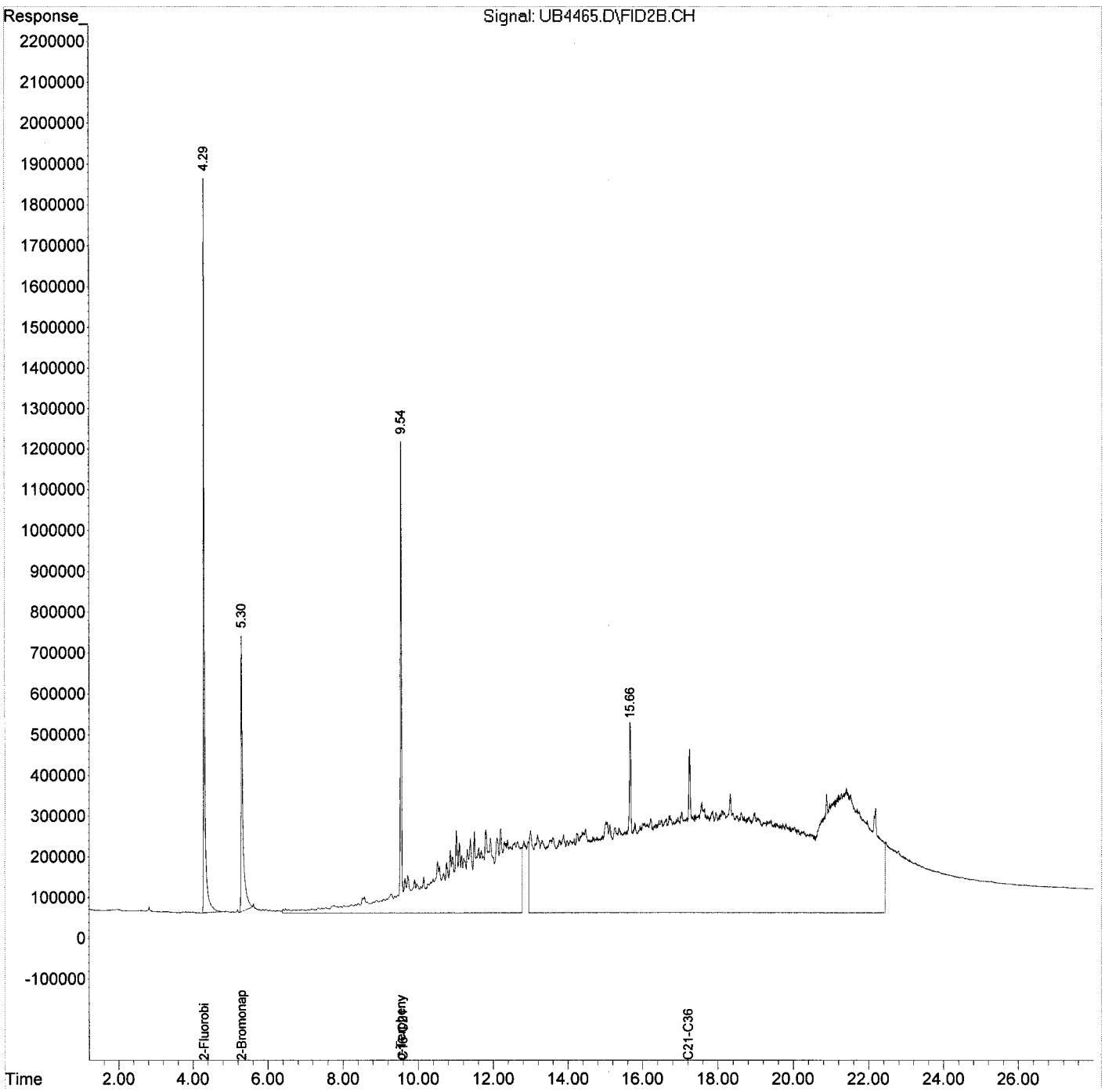
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4465.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 20:58
Operator : PSL
Sample : C-3_BLD_,09196-003,Xs,5.11g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:29:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6391.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 22:05
Operator : PSL
Sample : C-4_IMP.,09196-004,Xs,5.37g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,10
ALS Vial : 11 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:20:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	11.67	1009178	2.411	ng	m
Spiked Amount 50.000		Recovery =	4.82%		
Target Compounds					
22) H C16-C21	9.65	197621812	354.108	ng	
23) H C21-C40	18.70	3877555655	6594.094	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

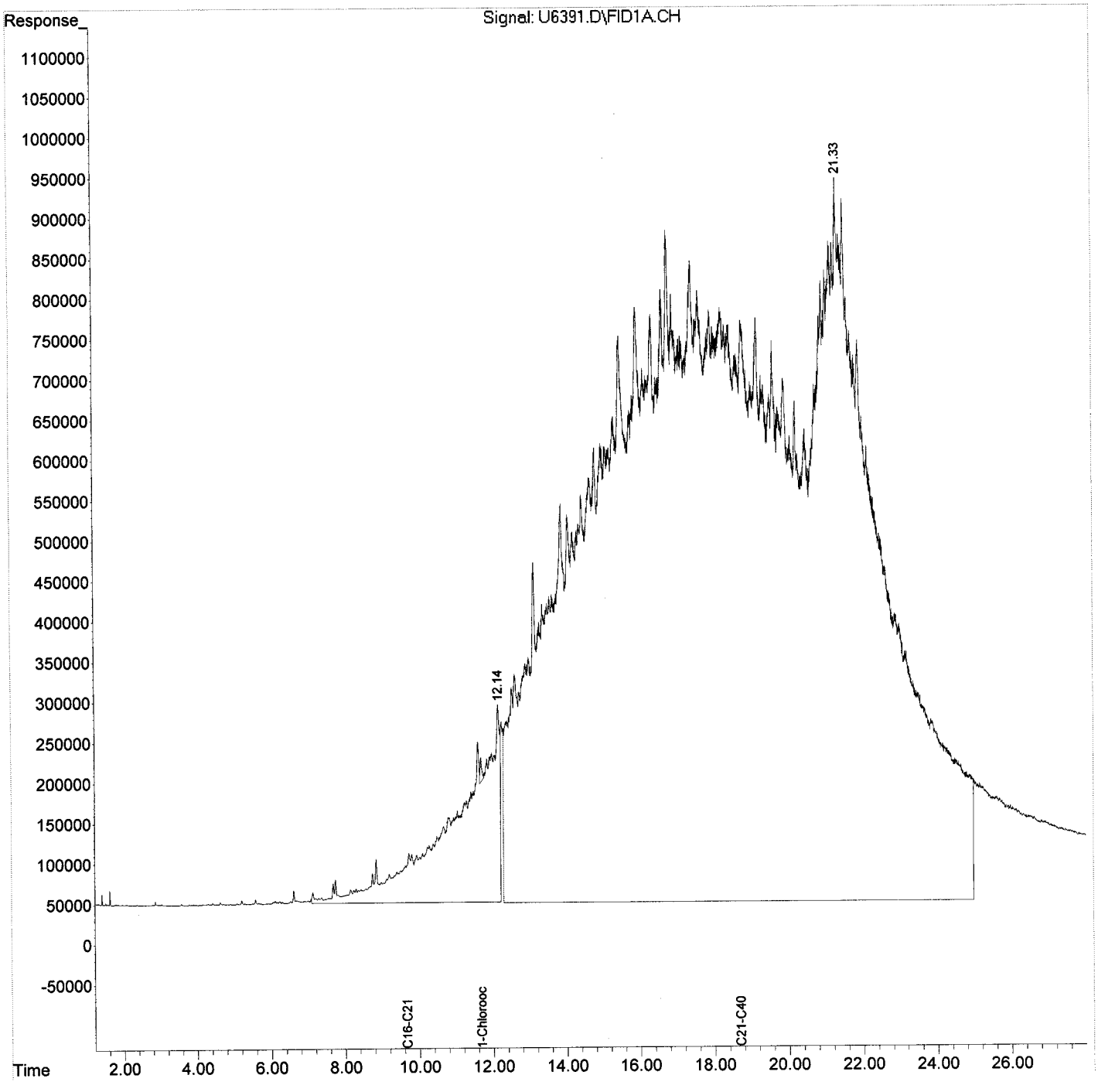
E13-09196 0377

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6391.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 22:05
Operator : PSL
Sample : C-4_IMP.,09196-004,Xs,5.37g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,10
ALS Vial : 11 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:20:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4466.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 22:05
Operator : PSL
Sample : C-4_IMP.,09196-004,Xs,5.37g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:30:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.30	36164892	41.417 ng	
Spiked Amount 50.000		Recovery =	82.83%	
2) S 2-Bromonaphthalene	5.30	22554461	41.705 ng	
Spiked Amount 50.000		Recovery =	83.41%	
3) S o-Terphenyl	9.54	21321836	29.418 ng	m
Spiked Amount 50.000		Recovery =	58.84%	
Target Compounds				
24) H C16-C21	9.60	473658248	553.133 ng	
25) H C21-C36	17.20	4420248309	4982.742 ng	

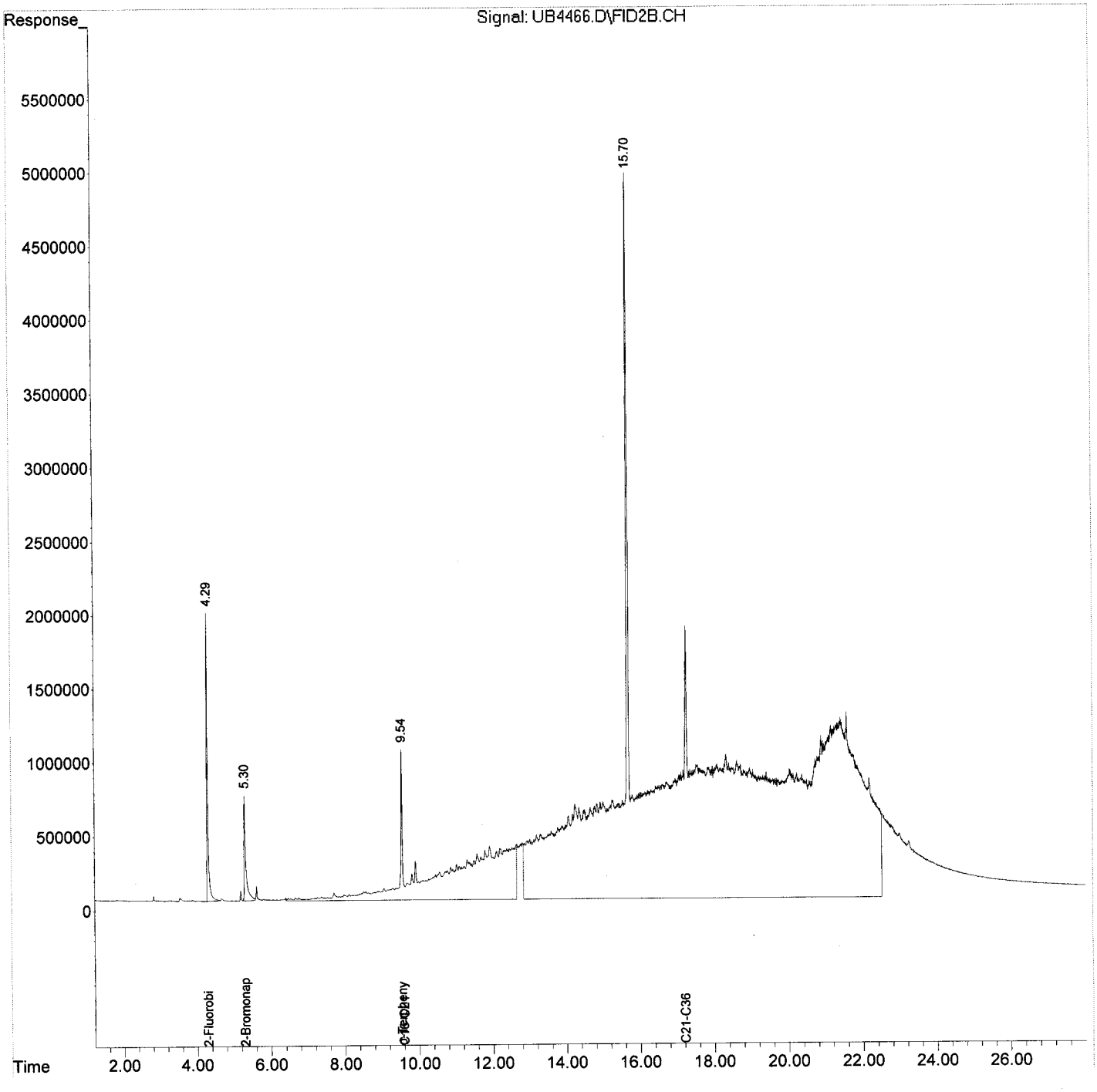
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4466.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 22:05
Operator : PSL
Sample : C-4_IMP.,09196-004,Xs,5.37g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:30:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6392.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 23:11
Operator : PSL
Sample : C-5_SPHI,09196-005,Xs,5.05g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 08:19:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	1-Chlorooctadecane	11.68	11731050	28.030 ng	m
Spiked Amount	50.000		Recovery =	56.06%	
Target Compounds					
22) H	C16-C21	9.65	367054733	657.706 ng	
23) H	C21-C40	18.70	6807496953	11576.693 ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

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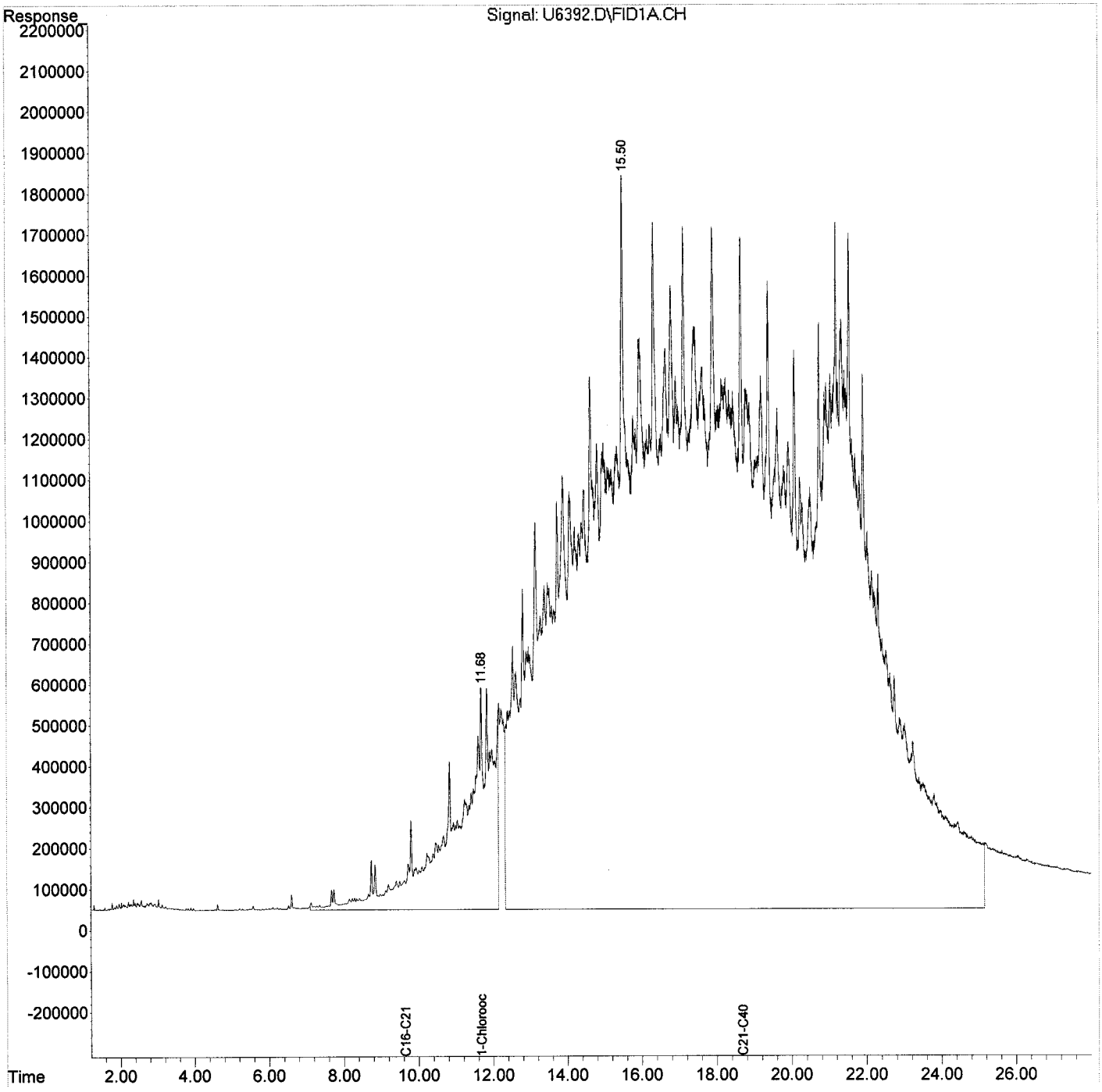
E13-09196 0381

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6392.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 23:11
Operator : PSL
Sample : C-5_SPHI,09196-005,Xs,5.05g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 08:19:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4467.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 22:38
Operator : PSL
Sample : C-5_SPHI,09196-005,Xs,5.05g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 62 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:31:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.30	34843485	39.904 ng
Spiked Amount 50.000		Recovery =	79.81%
2) S 2-Bromonaphthalene	5.31	21279570	39.348 ng
Spiked Amount 50.000		Recovery =	78.70%
3) S o-Terphenyl	9.54	19562302	26.990 ng
Spiked Amount 50.000		Recovery =	53.98%
Target Compounds			
24) H C16-C21	9.60	90029744	105.136 ng
25) H C21-C36	17.20	905089524	1020.266 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

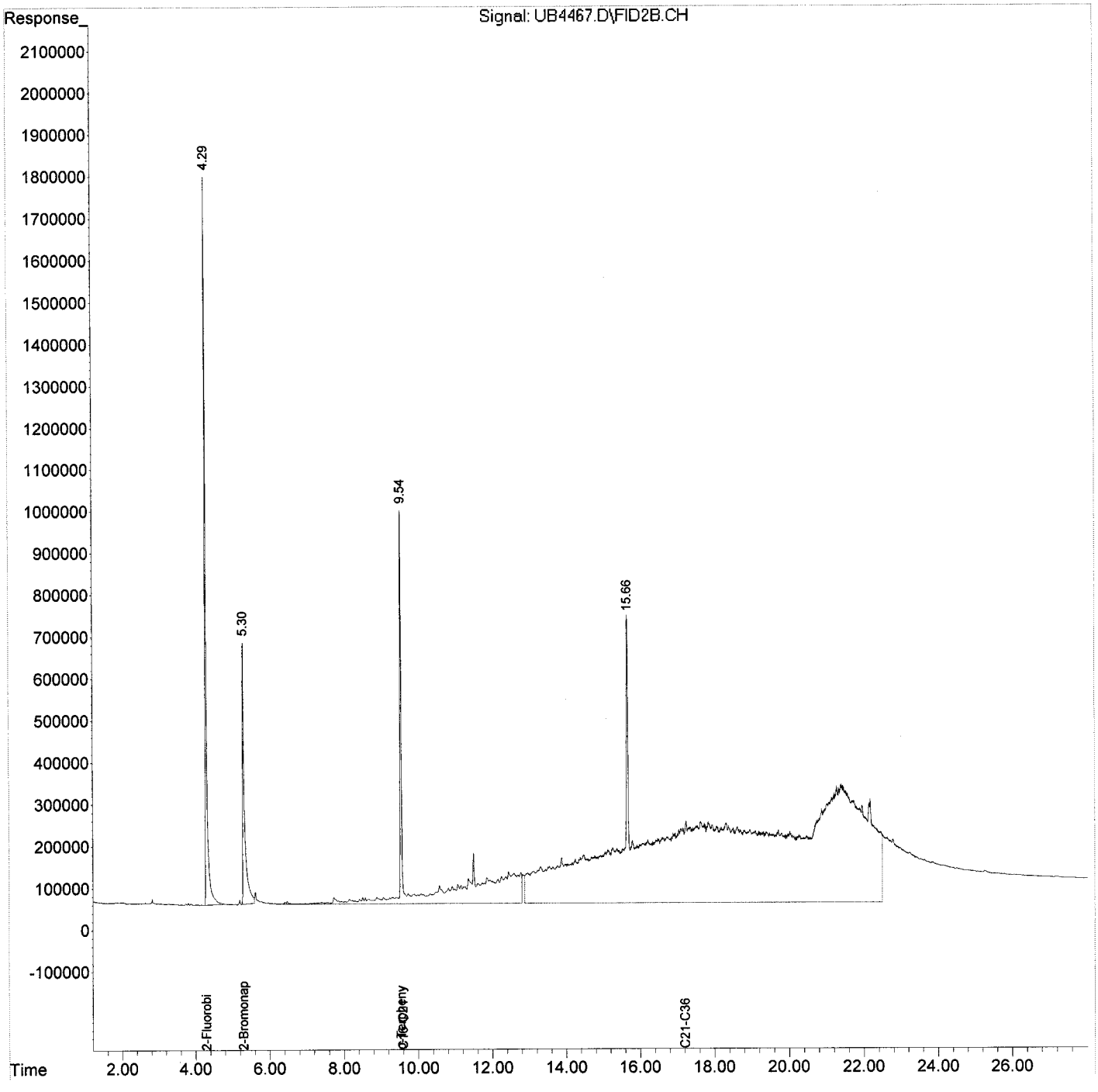
E13-09196 0383

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4467.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 22:38
Operator : PSL
Sample : C-5_SPHI,09196-005,Xs,5.05g,0,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 62 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:31:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013

Instrument ID: GC-U

GC Column : HP-5

Data File: U6157.D U6156.D U6155.D U6154.D U6153.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.29	1.29	1.29	1.29	1.30	1.29	1.22	1.36
n-Decane (C10)	1.78	1.78	1.79	1.79	1.80	1.79	1.72	1.86
n-Dodecane (C12)	3.05	3.04	3.05	3.06	3.07	3.06	2.98	3.14
n-Tetradecane (C14)	4.64	4.64	4.65	4.67	4.68	4.66	4.57	4.75
n-Hexadecane (C16)	6.62	6.63	6.64	6.66	6.68	6.65	6.54	6.76
n-Octadecane (C18)	8.76	8.77	8.78	8.80	8.83	8.79	8.67	8.91
n-Eicosane (C20)	10.85	10.85	10.87	10.89	10.92	10.88	10.76	11.00
n-Heneicosane (C21)	11.84	11.85	11.87	11.89	11.93	11.88	11.74	12.02
n-Docosane (C22)	12.80	12.81	12.83	12.85	12.89	12.84	12.70	12.98
n-Tetracosane (C24)	14.63	14.63	14.65	14.68	14.72	14.66	14.51	14.81
n-Hexacosane (C26)	16.32	16.33	16.35	16.37	16.41	16.35	16.20	16.50
n_Octacosane (C28)	17.90	17.91	17.93	17.95	17.99	17.94	17.79	18.09
n-Triacontane (C30)	19.37	19.38	19.41	19.43	19.48	19.41	19.26	19.56
n-Dotriacontane (C32)	20.74	20.75	20.77	20.79	20.83	20.78	20.66	20.90
n-Tetratriacontane (C34)	21.57	21.58	21.59	21.60	21.63	21.59	21.47	21.71
n-Hexatriacontane (C36)	22.33	22.34	22.36	22.38	22.41	22.36	22.21	22.51
n-Octatriacontane (C38)	23.26	23.28	23.30	23.33	23.36	23.31	23.16	23.46
n-Tetracontane (40)	24.47	24.49	24.52	24.56	24.61	24.53	24.38	24.68
C9-C12	2.25	2.25	2.25	2.25	2.25	2.25	2.15	2.35
C12-C16	5.20	5.20	5.20	5.20	5.20	5.20	5.10	5.30
C16-C21	9.65	9.65	9.65	9.65	9.65	9.65	9.54	9.76
C21-C40	18.70	18.70	18.70	18.70	18.70	18.70	18.59	18.81

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U
GC Column : HP-5

Data File: U6157.D U6156.D U6155.D U6154.D U6153.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	499988	575699	566240	552043	541608	547115	5.37
n-Decane (C10)	519216	588869	582177	567892	561432	563917	4.84
n-Dodecane (C12)	526461	606946	607601	586815	579223	581409	5.70
n-Tetradecane (C14)	527770	620823	622924	588463	579259	587848	6.59
n-Hexadecane (C16)	537015	610572	609980	567550	559629	576949	5.62
n-Octadecane (C18)	528277	582546	580707	538505	540212	554049	4.62
n-Eicosane (C20)	514145	558197	557428	522046	543011	538965	3.74
n-Heneicosane (C21)	510035	551150	550658	517928	543127	534580	3.61
n-Docosane (C22)	492566	535492	537903	515079	556339	527476	4.62
n-Tetracosane (C24)	465821	513434	522594	521753	566575	518035	6.92
n-Hexacosane (C26)	441227	493661	514427	534137	569092	510509	9.34
n_Octacosane (C28)	428208	491903	532060	546621	573163	514391	10.97
n-Triacontane (C30)	428882	507429	552810	559737	579714	525714	11.46
n-Dotriacontane (C32)	452383	540744	577377	577401	593912	548364	10.41
n-Tetratriacontane (C34)	474808	559182	584182	580427	594736	558667	8.70
n-Hexatriacontane (C36)	494772	575937	595512	589258	603087	571713	7.72
n-Octatriacontane (C38)	488578	568203	584919	577821	590713	562047	7.46
n-Tetracontane (40)	453938	552714	569823	562875	575810	543032	9.31
C9-C12	1703973	1809003	1770181	1716565	1689849	1737914	2.88
C12-C16	1223487	1265193	1255790	1173985	1154377	1214566	4.04
C16-C21	1667123	1738580	1719676	1599882	1645983	1674249	3.35
C21-C40	6381912	5722113	5751623	5677082	5869003	5880347	4.92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6153.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ALI_L5_IAS_4667,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:43:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.76	436473363	1042.916 ng
Spiked Amount	50.000		Recovery	= 2085.83%
24) S	o-Terphenyl	9.77	566805157	982.993 ng
Spiked Amount	50.000		Recovery	= 1965.99%
25) S	Naphthalene	3.00	619259304	1011.777 ng
Spiked Amount	50.000		Recovery	= 2023.55%
26) S	2-Methylnaphthalene	3.84	639240274	1014.195 ng
Spiked Amount	50.000		Recovery	= 2028.39%
	Target Compounds			
2) T	n-Nonane (C9)	1.30	541607514	989.933 ng
3) T	n-Decane (C10)	1.80	561431891	995.593 ng
4) T	n-Dodecane (C12)	3.07	579223329	996.241 ng
5) T	n-Tetradecane (C14)	4.68	579259255	985.390 ng
6) T	n-Hexadecane (C16)	6.68	559628945	969.980 ng
7) T	n-Octadecane (C18)	8.83	540211847	975.025 ng
8) T	n-Eicosane (C20)	10.92	543011484	1007.507 ng
9) T	n-Heneicosane (C21)	11.93	543126835	1015.988 ng
10) T	n-Docosane (C22)	12.89	556338936	1054.719 ng
11) T	n-Tetracosane (C24)	14.72	566575242	1093.700 ng
12) T	n-Hexacosane (C26)	16.41	569092121	1114.755 ng
13) T	n-Octacosane (C28)	17.99	573163019	1114.256 ng
14) T	n-Triacontane (C30)	19.48	579714493	1102.718 ng
15) T	n-Dotriacontane (C32)	20.83	593912209	1083.063 ng
16) T	n-Tetratriacontane (C34)	21.63	594735698	1064.562 ng
17) T	n-Hexatriacontane (C36)	22.41	603087162	1054.877 ng
18) T	n-Octatriacontane (C38)	23.36	590713318	1051.004 ng
19) T	n-Tetracontane (C40)	24.61	575810093	1060.361 ng
20) H	C9-C12	2.25	1689849312	2917.030 ng
21) H	C12-C16	5.20	1154377036	1900.888 ng
22) H	C16-C21	9.65	1645982501	2949.351 ng
23) H	C21-C40	18.70	5869003357	9980.710 ng

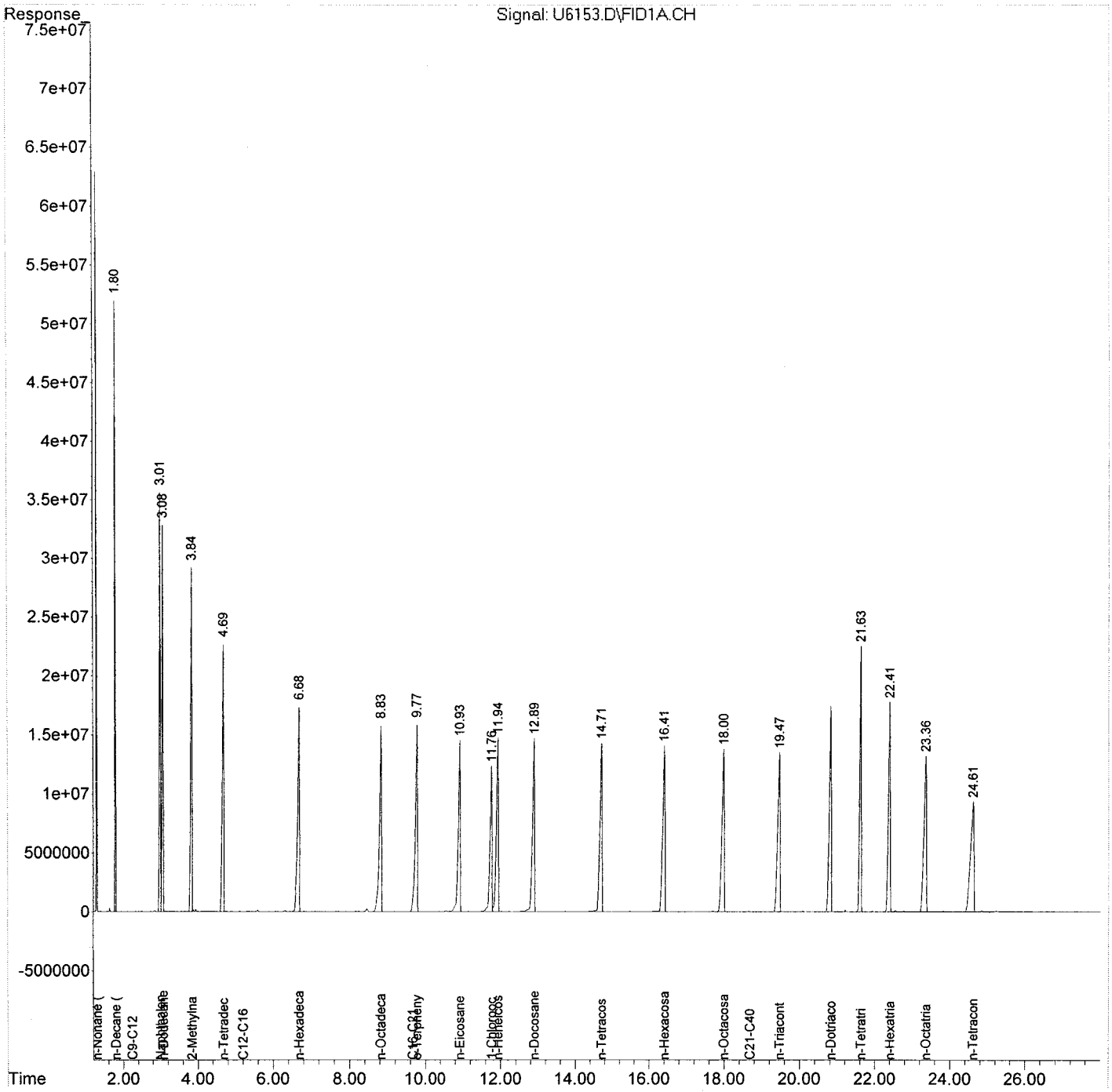
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6153.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ALI_L5_IAS_4667,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:43:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6154.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ALI_L4_IAS_4668,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.73	204816765	489.392 ng
Spiked Amount	50.000		Recovery	= 978.78%
24) S	o-Terphenyl	9.73	281366507	487.965 ng
Spiked Amount	50.000		Recovery	= 975.93%
25) S	Naphthalene	2.99	311116567	508.318 ng
Spiked Amount	50.000		Recovery	= 1016.64%
26) S	2-Methylnaphthalene	3.82	321898520	510.712 ng
Spiked Amount	50.000		Recovery	= 1021.42%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	276021271	504.503 ng
3) T	n-Decane (C10)	1.79	283946143	503.524 ng
4) T	n-Dodecane (C12)	3.06	293407404	504.649 ng
5) T	n-Tetradecane (C14)	4.67	294231496	500.523 ng
6) T	n-Hexadecane (C16)	6.66	283775097	491.855 ng
7) T	n-Octadecane (C18)	8.80	269252447	485.972 ng
8) T	n-Eicosane (C20)	10.89	261023162	484.304 ng
9) T	n-Heneicosane (C21)	11.89	258964214	484.426 ng
10) T	n-Docosane (C22)	12.85	257539496	488.249 ng
11) T	n-Tetracosane (C24)	14.68	260876282	503.588 ng
12) T	n-Hexacosane (C26)	16.37	267068325	523.142 ng
13) T	n-Octacosane (C28)	17.95	273310488	531.328 ng
14) T	n-Triacontane (C30)	19.43	279868367	532.358 ng
15) T	n-Dotriacontane (C32)	20.79	288700273	526.476 ng
16) T	n-Tetratriacontane (C34)	21.60	290213720	519.475 ng
17) T	n-Hexatriacontane (C36)	22.38	294629066	515.344 ng
18) T	n-Octatriacontane (C38)	23.33	288910277	514.032 ng
19) T	n-Tetracontane (C40)	24.56	281437670	518.271 ng
20) H	C9-C12	2.25	858282585	1481.574 ng
21) H	C12-C16	5.20	586992589	966.588 ng
22) H	C16-C21	9.65	799941052	1433.373 ng
23) H	C21-C40	18.70	2838541245	4827.166 ng

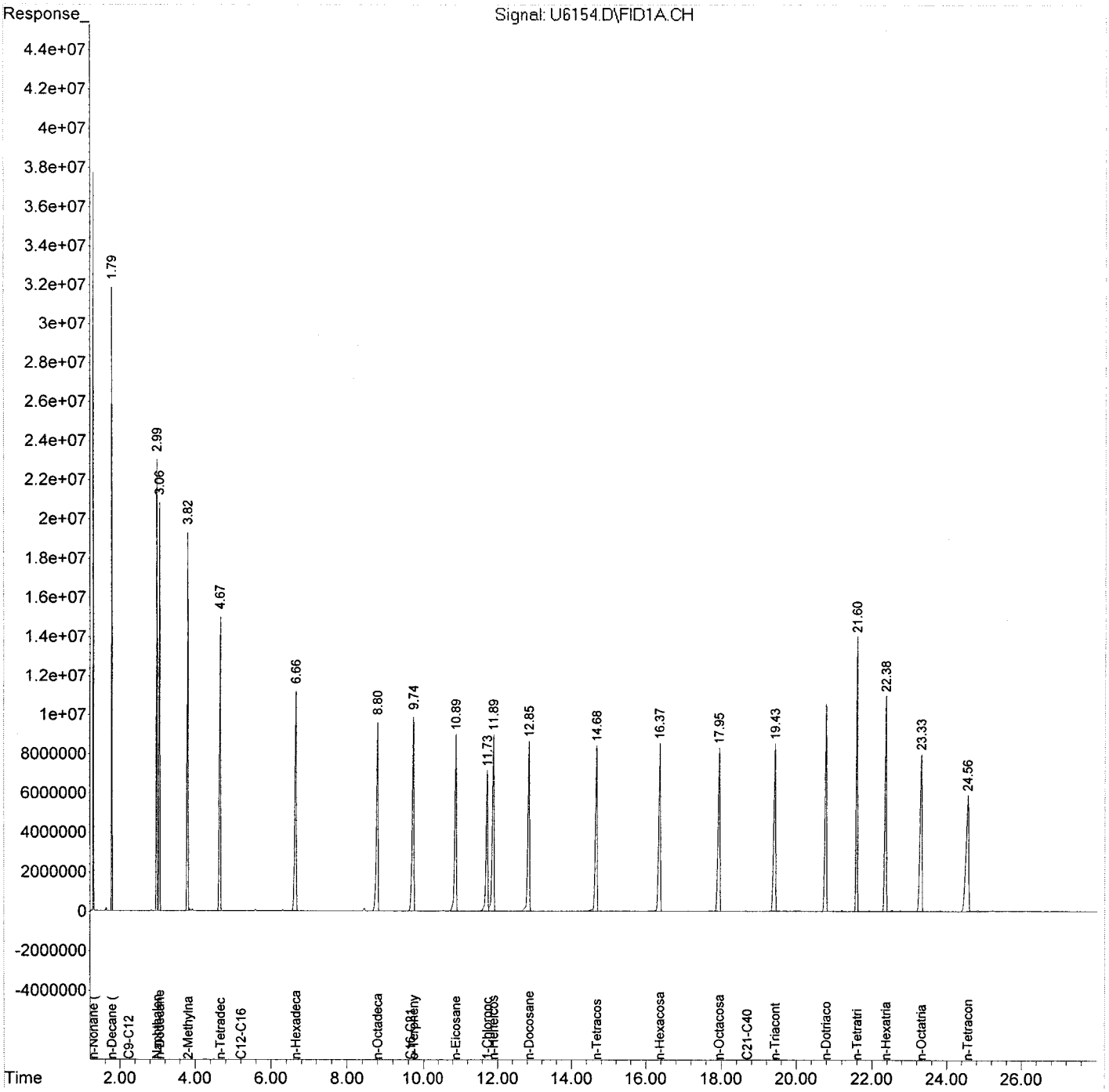
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6154.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ALI_L4_IAS_4668,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6155.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ALI_L3_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.71	107402094	256.628 ng
Spiked Amount 50.000		Recovery =	513.26%
24) S o-Terphenyl	9.72	150967638	261.819 ng
Spiked Amount 50.000		Recovery =	523.64%
25) S Naphthalene	2.98	159833248	261.143 ng
Spiked Amount 50.000		Recovery =	522.29%
26) S 2-Methylnaphthalene	3.81	166418181	264.033 ng
Spiked Amount 50.000		Recovery =	528.07%
Target Compounds			
2) T n-Nonane (C9)	1.29	141559977	258.739 ng
3) T n-Decane (C10)	1.79	145544317	258.095 ng
4) T n-Dodecane (C12)	3.05	151900155	261.262 ng
5) T n-Tetradecane (C14)	4.65	155731055	264.917 ng
6) T n-Hexadecane (C16)	6.64	152494916	264.313 ng
7) T n-Octadecane (C18)	8.78	145176716	262.028 ng
8) T n-Eicosane (C20)	10.87	139356979	258.564 ng
9) T n-Heneicosane (C21)	11.87	137664452	257.519 ng
10) T n-Docosane (C22)	12.83	134475740	254.942 ng
11) T n-Tetracosane (C24)	14.65	130648501	252.200 ng
12) T n-Hexacosane (C26)	16.35	128606723	251.919 ng
13) T n-Octacosane (C28)	17.93	133015058	258.587 ng
14) T n-Triacontane (C30)	19.41	138202383	262.885 ng
15) T n-Dotriacontane (C32)	20.77	144344350	263.227 ng
16) T n-Tetratriacontane (C34)	21.59	146045542	261.418 ng
17) T n-Hexatriacontane (C36)	22.36	148877950	260.407 ng
18) T n-Octatriacontane (C38)	23.30	146229801	260.174 ng
19) T n-Tetracontane (C40)	24.52	142455851	262.334 ng
20) H C9-C12	2.25	442545156	763.925 ng
21) H C12-C16	5.20	313947379	516.970 ng
22) H C16-C21	9.65	429919004	770.350 ng
23) H C21-C40	18.70	1437905785	2445.274 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

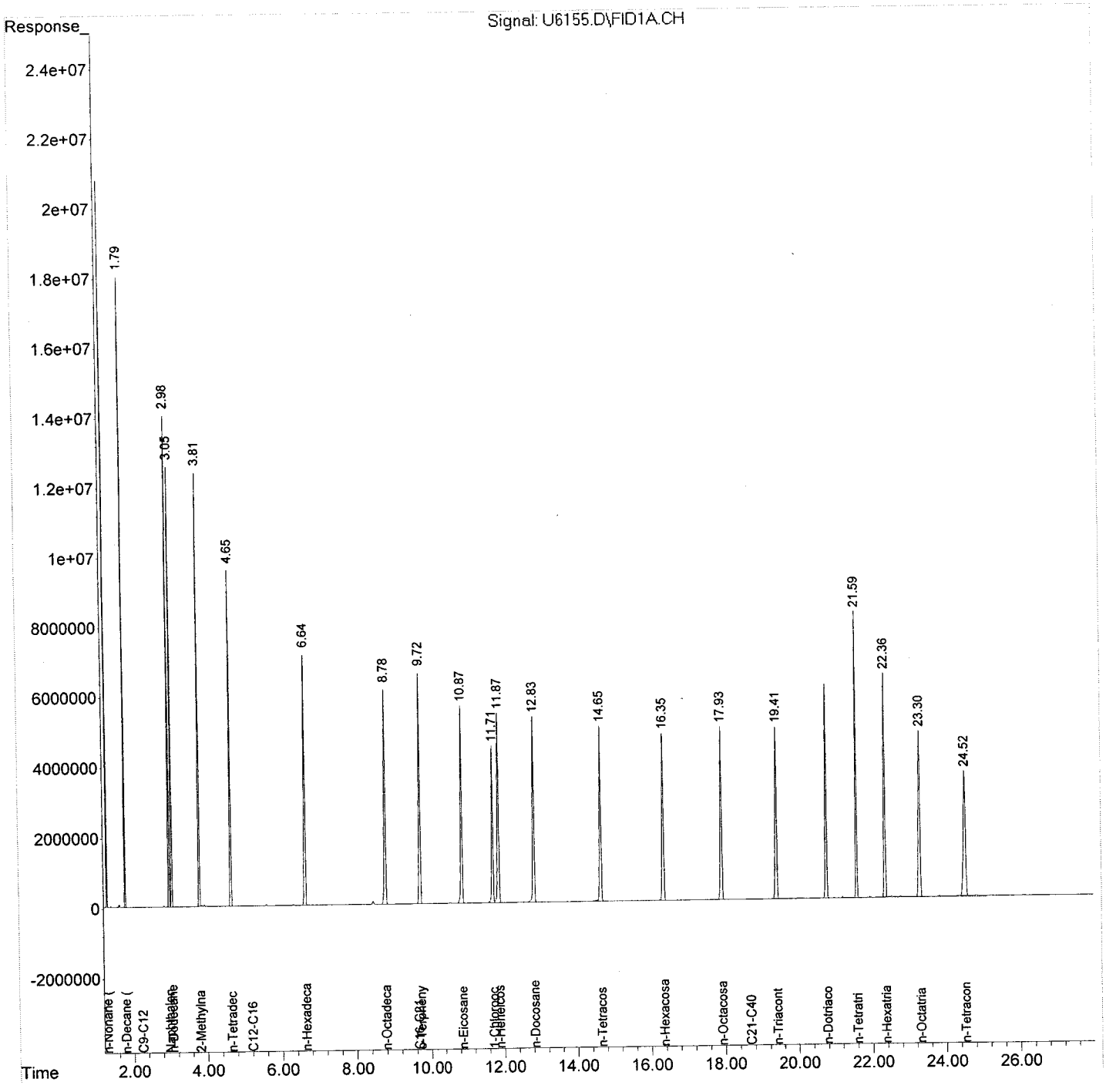
L

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6155.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ALI_L3_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6156.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ALI_L2_IAS_4670,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.69	42741511	102.127 ng
Spiked Amount 50.000		Recovery =	204.25%
24) S o-Terphenyl	9.70	60473018	104.877 ng
Spiked Amount 50.000		Recovery =	209.75%
25) S Naphthalene	2.97	63656337	104.005 ng
Spiked Amount 50.000		Recovery =	208.01%
26) S 2-Methylnaphthalene	3.80	65571558	104.033 ng
Spiked Amount 50.000		Recovery =	208.07%
Target Compounds			
2) T n-Nonane (C9)	1.29	57569922	105.224 ng
3) T n-Decane (C10)	1.78	58886943	104.425 ng
4) T n-Dodecane (C12)	3.04	60694563	104.392 ng
5) T n-Tetradecane (C14)	4.64	62082267	105.609 ng
6) T n-Hexadecane (C16)	6.63	61057207	105.828 ng
7) T n-Octadecane (C18)	8.77	58254593	105.143 ng
8) T n-Eicosane (C20)	10.85	55819676	103.568 ng
9) T n-Heneicosane (C21)	11.85	55115014	103.100 ng
10) T n-Docosane (C22)	12.81	53549232	101.520 ng
11) T n-Tetracosane (C24)	14.63	51343371	99.112 ng
12) T n-Hexacosane (C26)	16.33	49366124	96.700 ng
13) T n-Octacosane (C28)	17.91	49190277	95.628 ng
14) T n-Triacontane (C30)	19.38	50742913	96.522 ng
15) T n-Dotriacontane (C32)	20.75	54074419	98.611 ng
16) T n-Tetratriacontane (C34)	21.58	55918209	100.092 ng
17) T n-Hexatriacontane (C36)	22.34	57593688	100.739 ng
18) T n-Octatriacontane (C38)	23.28	56820339	101.095 ng
19) T n-Tetracontane (C40)	24.49	55271426	101.783 ng
20) H C9-C12	2.25	180900268	312.271 ng
21) H C12-C16	5.20	126519273	208.337 ng
22) H C16-C21	9.65	173857990	311.527 ng
23) H C21-C40	18.70	572211254	973.091 ng

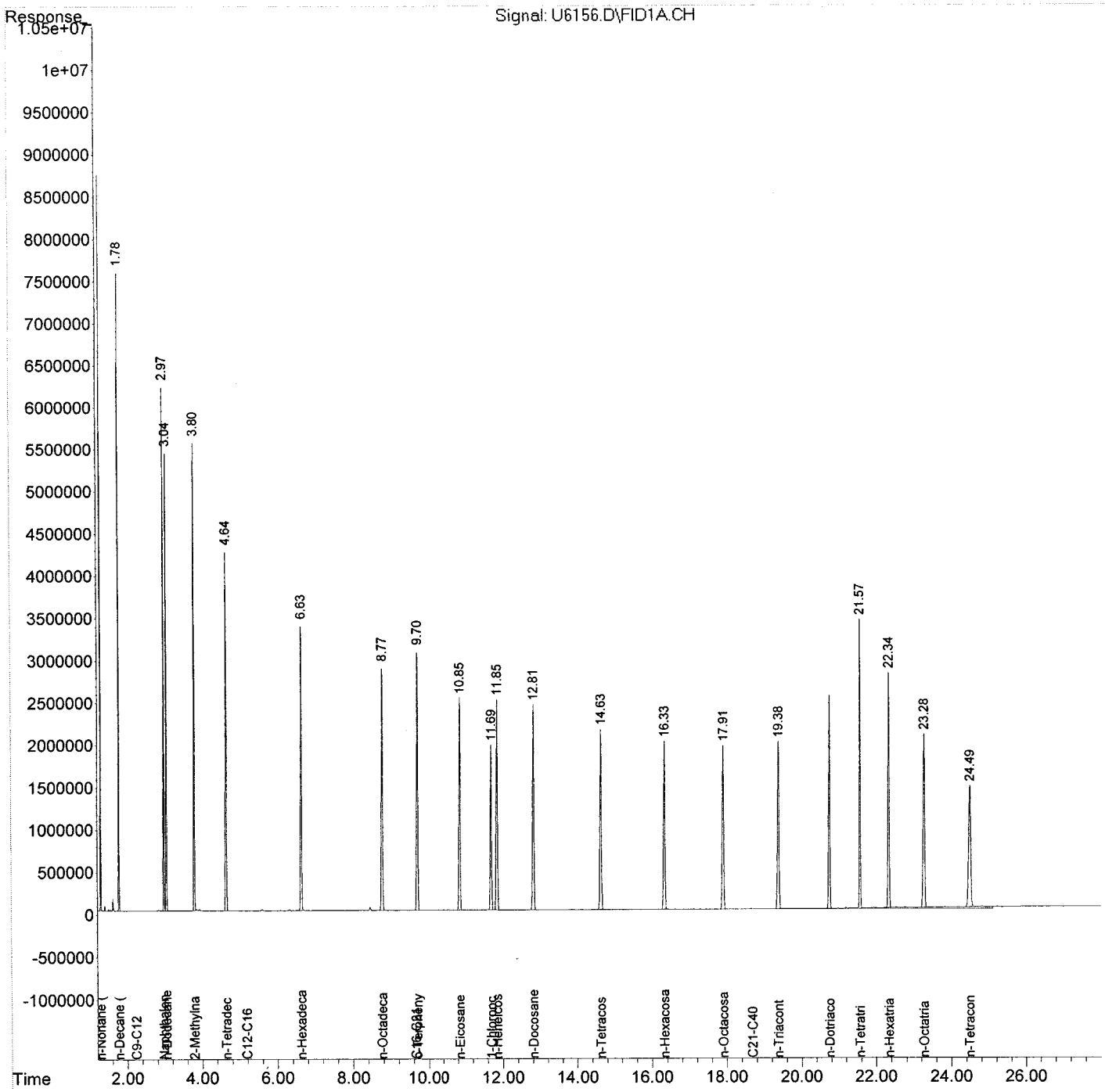
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6156.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ALI_L2_IAS_4670,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6157.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ALI_L1_IAS_4671,20_PPM
Misc : ,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.69	7788636	18.610 ng
Spiked Amount 50.000		Recovery =	37.22%
24) S o-Terphenyl	9.69	10898383	18.901 ng
Spiked Amount 50.000		Recovery =	37.80%
25) S Naphthalene	2.97	10857368	17.739 ng
Spiked Amount 50.000		Recovery =	35.48%
26) S 2-Methylnaphthalene	3.80	10940817	17.358 ng
Spiked Amount 50.000		Recovery =	34.72%
Target Compounds			
2) T n-Nonane (C9)	1.29	9999763	18.277 ng
3) T n-Decane (C10)	1.78	10384314	18.415 ng
4) T n-Dodecane (C12)	3.05	10529219	18.110 ng
5) T n-Tetradecane (C14)	4.64	10555405	17.956 ng
6) T n-Hexadecane (C16)	6.62	10740296	18.616 ng
7) T n-Octadecane (C18)	8.76	10565548	19.070 ng
8) T n-Eicosane (C20)	10.85	10282896	19.079 ng
9) T n-Heneicosane (C21)	11.84	10200707	19.082 ng
10) T n-Docosane (C22)	12.80	9851311	18.676 ng
11) T n-Tetracosane (C24)	14.63	9316426	17.984 ng
12) T n-Hexacosane (C26)	16.32	8824532	17.286 ng
13) T n-Octacosane (C28)	17.90	8564155	16.649 ng
14) T n-Triacontane (C30)	19.37	8577644	16.316 ng
15) T n-Dotriacontane (C32)	20.74	9047664	16.499 ng
16) T n-Tetratriacontane (C34)	21.57	9496158	16.998 ng
17) T n-Hexatriacontane (C36)	22.33	9895446	17.308 ng
18) T n-Octatriacontane (C38)	23.26	9771562	17.386 ng
19) T n-Tetracontane (C40)	24.47	9078754	16.719 ng
20) H C9-C12	2.25	34079465	58.828 ng
21) H C12-C16	5.20	24469736	40.294 ng
22) H C16-C21	9.65	33342456	59.745 ng
23) H C21-C40	18.70	127638248	217.059 ng

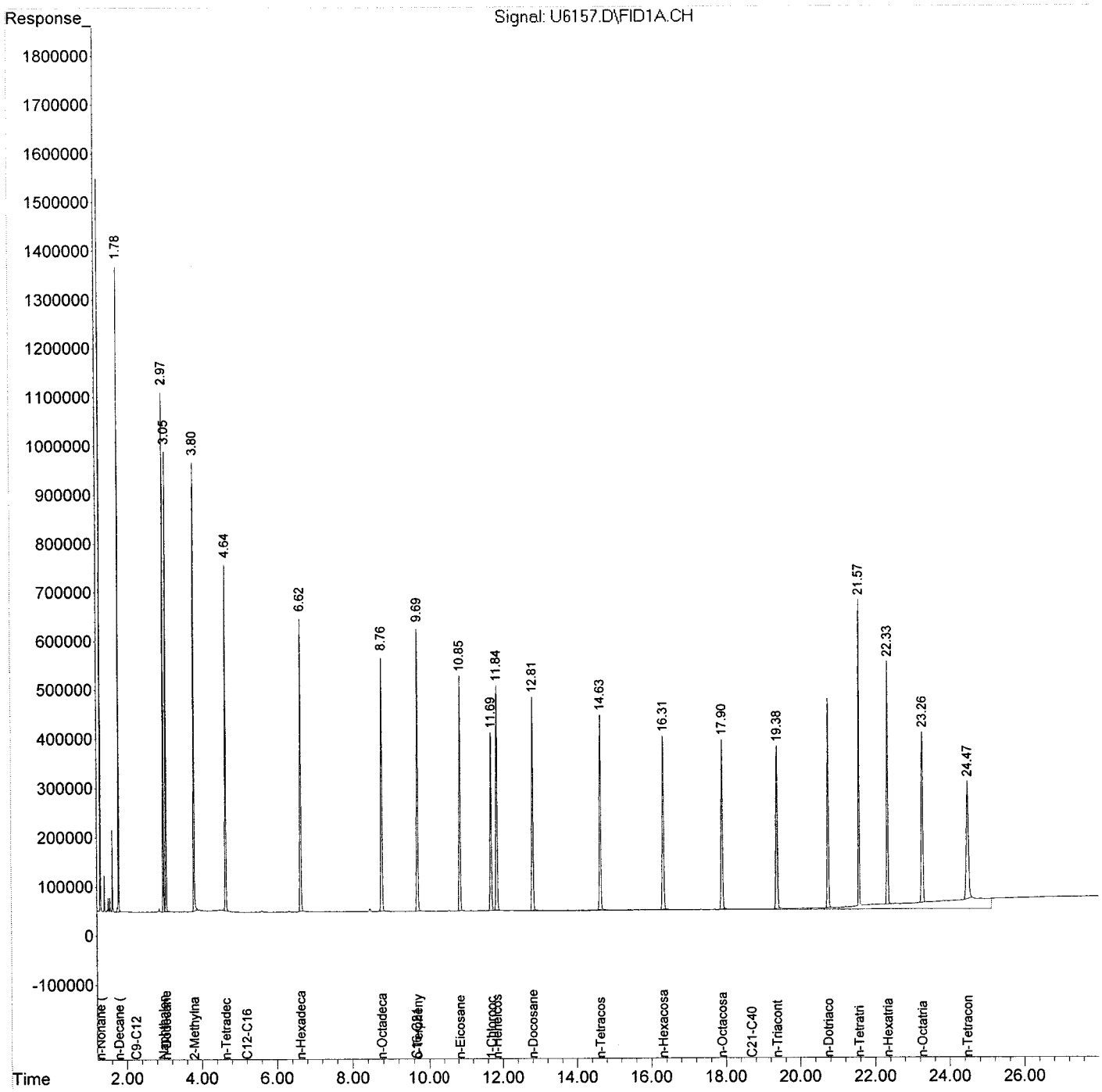
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6157.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ALI_L1_IAS_4671.20_PPM
Misc : ,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6158.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:52:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.72	107471186	256.793 ng
Spiked Amount	50.000		Recovery =	513.59%
24) S	o-Terphenyl	9.72	149942151	260.040 ng
Spiked Amount	50.000		Recovery =	520.08%
25) S	Naphthalene	2.99	159843086	261.160 ng
Spiked Amount	50.000		Recovery =	522.32%
26) S	2-Methylnaphthalene	3.82	166046447	263.443 ng
Spiked Amount	50.000		Recovery =	526.89%
	Target Compounds			
2) T	n-Nonane (C9)	1.30	141165683	258.018 ng
3) T	n-Decane (C10)	1.79	145486090	257.992 ng
4) T	n-Dodecane (C12)	3.06	151790134	261.073 ng
5) T	n-Tetradecane (C14)	4.66	154902029	263.507 ng
6) T	n-Hexadecane (C16)	6.65	151181819	262.037 ng
7) T	n-Octadecane (C18)	8.79	144151667	260.178 ng
8) T	n-Eicosane (C20)	10.88	139152763	258.185 ng
9) T	n-Heneicosane (C21)	11.88	137964348	258.080 ng
10) T	n-Docosane (C22)	12.84	135094400	256.115 ng
11) T	n-Tetracosane (C24)	14.66	131968193	254.747 ng
12) T	n-Hexacosane (C26)	16.35	129721076	254.102 ng
13) T	n-Octacosane (C28)	17.93	133801020	260.115 ng
14) T	n-Triacontane (C30)	19.41	138239027	262.955 ng
15) T	n-Dotriacontane (C32)	20.78	143913015	262.441 ng
16) T	n-Tetratriacontane (C34)	21.60	145552382	260.535 ng
17) T	n-Hexatriacontane (C36)	22.37	148365686	259.511 ng
18) T	n-Octatriacontane (C38)	23.31	145739611	259.302 ng
19) T	n-Tetracontane (C40)	24.54	141944599	261.393 ng
20) H	C9-C12	2.25	442139594	763.225 ng
21) H	C12-C16	5.20	311927936	513.645 ng
22) H	C16-C21	9.65	428766916	768.285 ng
23) H	C21-C40	18.70	1436815247	2443.419 ng

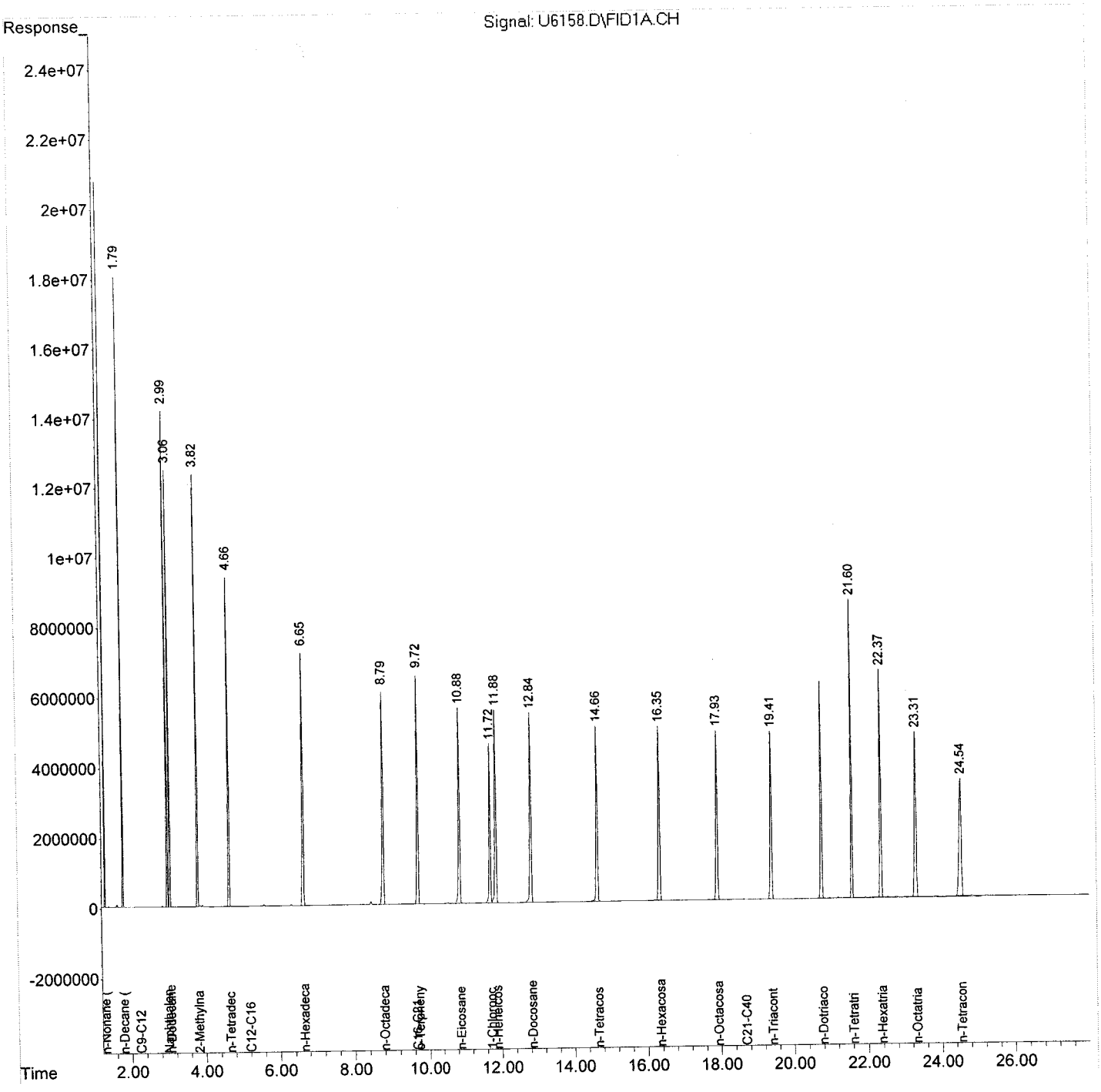
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6158.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:52:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U

GC Column : HP-5

Data File: UB4232.D UB4231.D UB4230.D UB4229.D UB4228.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
1,2,3-Trimethylbenzene	1.91	1.90	1.90	1.90	1.91	1.91	1.79	2.03
Napthalene	2.99	2.94	2.94	2.94	2.95	2.95	2.83	3.07
2-Methylnaphthalene	3.80	3.75	3.75	3.75	3.77	3.76	3.64	3.88
Acenaphthylene	5.11	5.08	5.09	5.10	5.13	5.10	4.98	5.22
Acenaphthene	5.43	5.41	5.43	5.45	5.51	5.44	5.32	5.56
Fluorene	6.45	6.39	6.41	6.42	6.46	6.42	6.30	6.54
Phenanthrene	8.47	8.43	8.45	8.47	8.51	8.47	8.35	8.59
Anthracene	8.60	8.54	8.56	8.58	8.66	8.59	8.47	8.71
Fluoroanthene	11.33	11.28	11.30	11.32	11.38	11.32	11.20	11.44
Pyrene	11.83	11.78	11.80	11.83	11.90	11.83	11.71	11.95
Benzo[a]anthracene	14.90	14.86	14.89	14.92	14.99	14.91	14.79	15.03
Chrysene	15.01	14.95	14.99	15.03	15.13	15.02	14.90	15.14
Benzo[b]fluoranthene	17.54	17.45	17.56	17.60	17.71	17.57	17.45	17.69
Benzo[k]fluoranthene	17.54	17.45	17.56	17.60	17.71	17.57	17.45	17.69
Benzo[a]pyrene	18.23	18.12	18.15	18.20	18.32	18.20	18.08	18.32
Indeno[1,2,3-cd]pyrene	20.51	20.40	20.51	20.57	20.69	20.54	20.42	20.66
Dibenz[a,h]anthracene	20.51	20.40	20.51	20.57	20.69	20.54	20.42	20.66
Benzo[g,h,i]perylene	20.87	20.80	20.85	20.89	21.00	20.88	20.76	21.00
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	4.95	4.95	4.95	4.95	4.95	4.95	4.83	5.07
C16-C21	9.60	9.60	9.60	9.60	9.60	9.60	9.48	9.72
C21-C36	17.20	17.20	17.20	17.20	17.20	17.20	17.08	17.32

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U
GC Column : HP-5

Data File: UB4232.D UB4231.D UB4230.D UB4229.D UB4228.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	656651	608153	766709	644017	730176	681141	9.58
Napthalene	684270	641272	819811	683672	811005	728006	11.23
2-Methylnaphthalene	753227	686985	829065	689927	825365	756914	9.17
Acenaphthylene	778553	694544	877453	725685	865131	788273	10.36
Acenaphthene	725285	802434	927697	756283	882563	818853	10.37
Fluorene	828097	725743	904839	749713	893579	820394	9.92
Phenanthrene	715568	715881	914425	757401	910521	802759	12.66
Anthracene	935729	745471	915091	749730	892943	847793	10.94
Fluoroanthene	838926	757902	946388	781613	928367	850639	9.96
Pyrene	943007	776059	955439	763372	933217	874219	10.96
Benzo[a]anthracene	771856	702025	929031	777836	965370	829224	13.56
Chrysene	1004593	803629	903236	740017	828197	855934	11.87
Benzo[b]fluoranthene	1833506	1553705	1908202	1579356	1869109	1748775	9.65
Benzo[k]fluoranthene	1833506	1553705	1908202	1579356	1869109	1748775	9.65
Benzo[a]pyrene	935566	777317	955233	787542	927220	876576	9.88
Indeno[1,2,3-cd]pyrene	1472528	1425551	1823468	1529059	1823626	1614847	12.01
Dibenz[a,h]anthracene	1472528	1425551	1823468	1529059	1823626	1614847	12.01
Benzo[g,h,i]perylene	1041326	808471	958709	793000	927854	905872	11.56
C10-C12	1396530	1258442	1590621	1329759	1564971	1428065	10.18
C12-C16	2546649	2204035	2685998	2215700	2620813	2454639	9.32
C16-C21	4459229	3786955	4673045	3878333	4610413	4281595	9.77
C21-C36	7915497	6273517	7608551	6278714	7408183	7096892	10.86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4228.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ARO_L5_IAS_4661,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:18:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.36	955359900	1094.108	ng	
Spiked Amount	50.000		Recovery	= 2188.22%		
2) S	2-Bromonaphthalene	5.38	646688522	1203.882	ng	
Spiked Amount	50.000		Recovery	= 2407.76%		
3) S	o-Terphenyl	9.65	779891188	1076.028	ng	
Spiked Amount	50.000		Recovery	= 2152.06%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.91	730176227	1071.990	ng	
5) T	Napthalene	2.95	811004771	1114.008	ng	
6) T	2-Methylnaphthalene	3.77	825365373	1090.435	ng	
7) T	Acenaphthylene	5.13	865130842	1097.501	ng	
8) T	Acenaphthene	5.51	882563437	1042.233	ng	m
9) T	Fluorene	6.46	893579249	1089.207	ng	
10) T	Phenanthrene	8.51	910521449	1134.240	ng	
11) T	Anthracene	8.66	892943054	1054.505	ng	m
12) T	Fluoroanthene	11.38	928367082	1091.376	ng	
13) T	Pyrene	11.90	933217272	1067.487	ng	
14) T	Benzo[a]anthracene	14.99	965369828	1180.809	ng	
15) T	Chrysene	15.13	828196524	952.827	ng	m
16) T	Benzo[b]fluoranthene	17.71	1869108649	1068.810	ng	
17) T	Benzo[k]fluoranthene	17.71	1869108649	1068.810	ng	
18) T	Benzo[a]pyrene	18.32	927219995	1056.708	ng	m
19) T	Indeno[1,2,3-cd]pyrene	20.69	1823625958	1129.287	ng	
20) T	Dibenz[a,h]anthracene	20.69	1823625958	1129.287	ng	
21) T	Benzo[g,h,i]perylene	21.00	927854185	1024.266	ng	
22) H	C10-C12	2.70	1564971477	2198.669	ng	
23) H	C12-C16	4.95	2620813346	3199.363	ng	
24) H	C16-C21	9.60	4610413217	5382.616	ng	
25) H	C21-C36	17.20	7408182714	8350.903	ng	

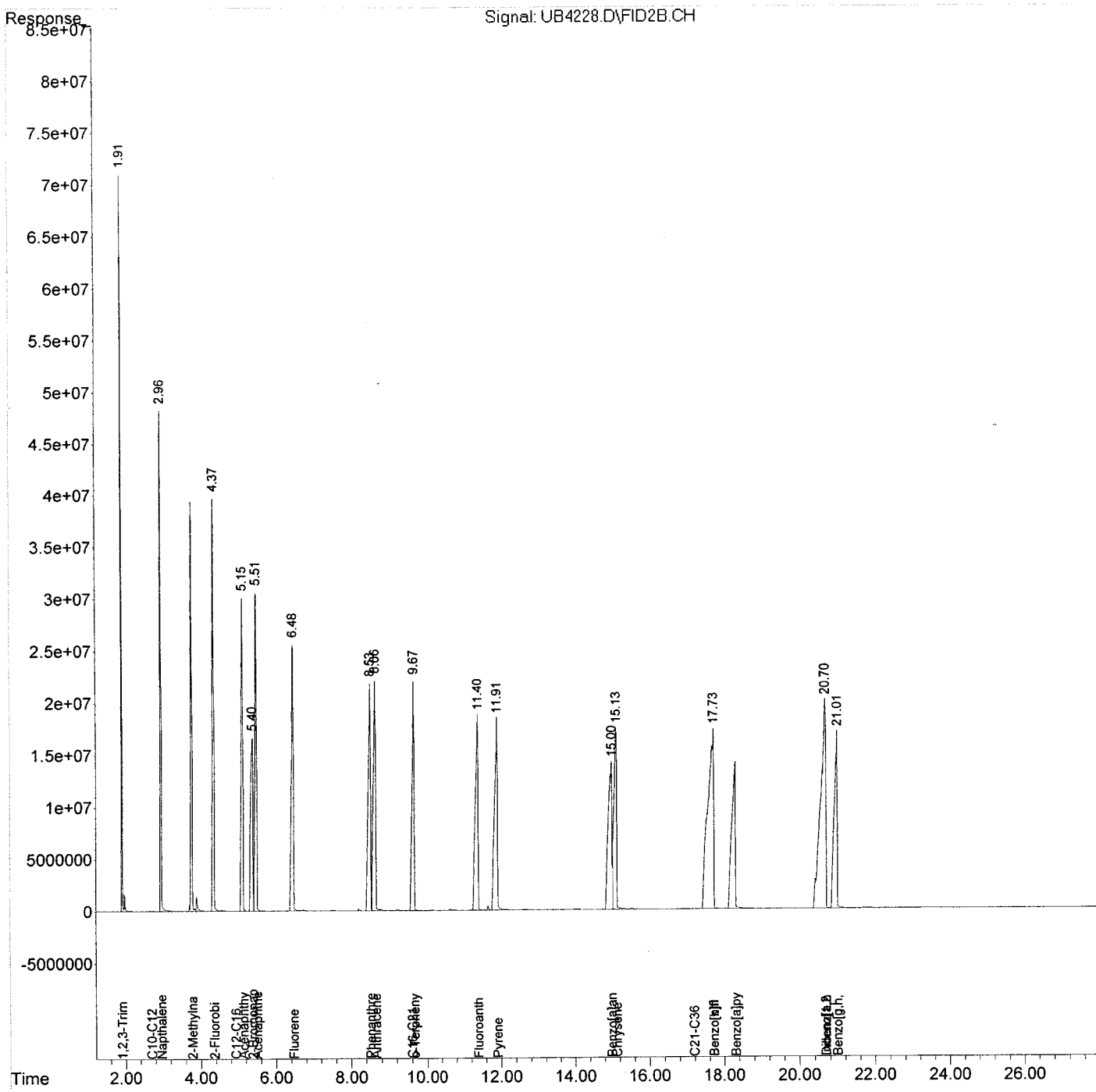
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4228.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ARO_L5_IAS_4661,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:18:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4229.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ARO_L4_IAS_4662,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:19:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.33	400965744	459.198 ng
Spiked Amount	50.000		Recovery =	918.40%
2) S	2-Bromonaphthalene	5.34	264824295	492.999 ng
Spiked Amount	50.000		Recovery =	986.00%
3) S	o-Terphenyl	9.61	325321920	448.852 ng
Spiked Amount	50.000		Recovery =	897.70%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	322008315	472.748 ng
5) T	Napthalene	2.94	341836110	469.551 ng
6) T	2-Methylnaphthalene	3.75	344963499	455.750 ng
7) T	Acenaphthylene	5.10	362842360	460.300 ng
8) T	Acenaphthene	5.45	378141360	446.553 ng
9) T	Fluorene	6.42	374856694	456.923 ng
10) T	Phenanthrene	8.47	378700709	471.749 ng
11) T	Anthracene	8.58	374864999	442.690 ng
12) T	Fluoroanthene	11.32	390806728	459.427 ng
13) T	Pyrene	11.83	381685878	436.602 ng
14) T	Benzo[a]anthracene	14.92	388917937	475.712 ng
15) T	Chrysene	15.03	370008563	425.689 ng
16) T	Benzo[b]fluoranthene	17.60	789677822	451.560 ng
17) T	Benzo[k]fluoranthene	17.60	789677822	451.560 ng
18) T	Benzo[a]pyrene	18.20	393771083	448.762 ng
19) T	Indeno[1,2,3-cd]pyrene	20.57	764529746	473.438 ng
20) T	Dibenz[a,h]anthracene	20.57	764529746	473.438 ng
21) T	Benzo[g,h,i]perylene	20.89	396499750	437.700 ng
22) H	C10-C12	2.70	664879727	934.107 ng
23) H	C12-C16	4.95	1107849952	1352.410 ng
24) H	C16-C21	9.60	1939166688	2263.960 ng
25) H	C21-C36	17.20	3139356903	3538.852 ng

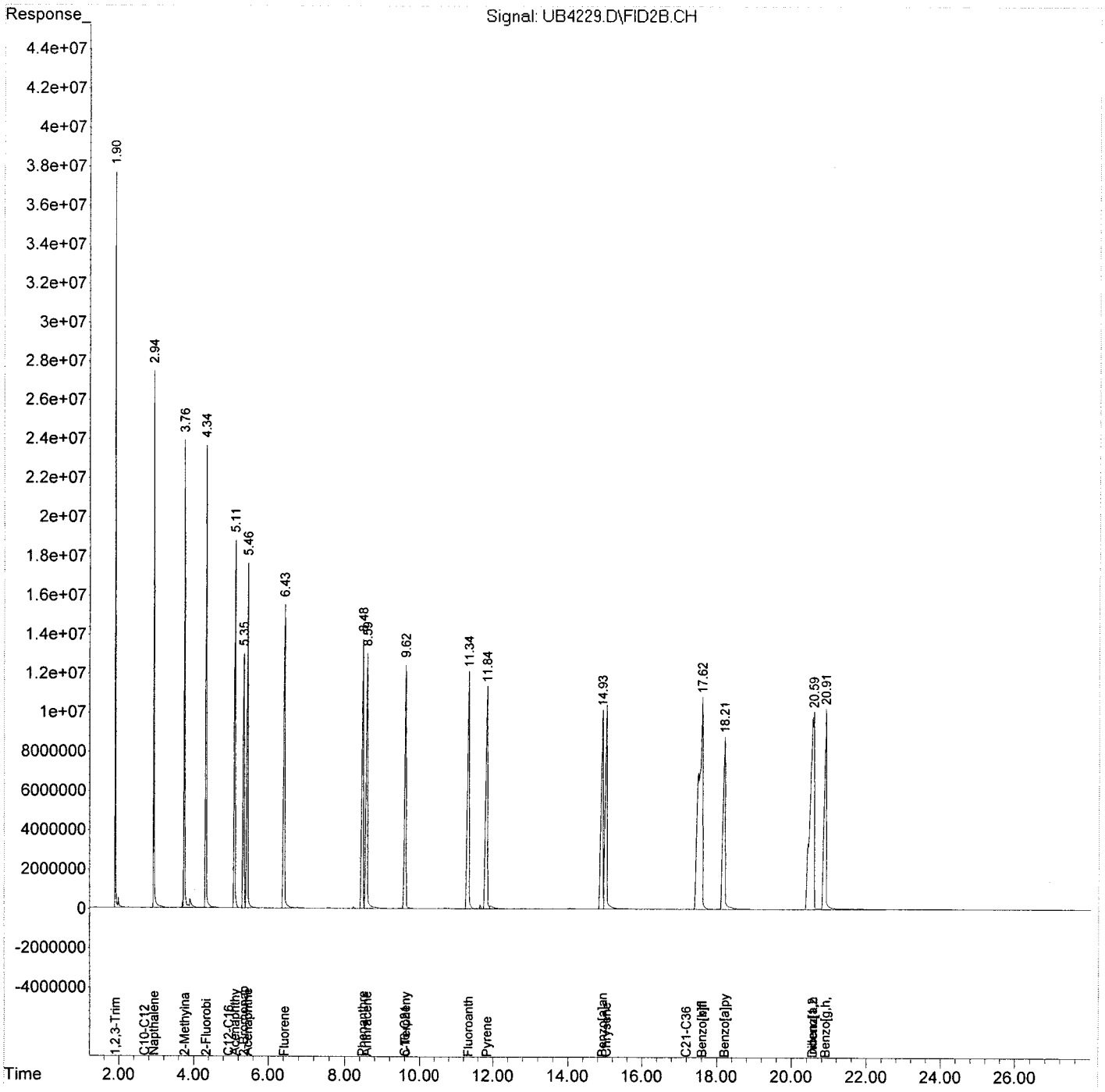
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4229.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ARO_L4_IAS_4662,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:19:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4230.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ARO_L3_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:20:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.32	243991675	279.427 ng
Spiked Amount	50.000		Recovery	= 558.85%
2) S	2-Bromonaphthalene	5.33	157254208	292.746 ng
Spiked Amount	50.000		Recovery	= 585.49%
3) S	o-Terphenyl	9.60	200188057	276.203 ng
Spiked Amount	50.000		Recovery	= 552.41%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	191677125	281.406 ng
5) T	Napthalene	2.94	204952823	281.526 ng
6) T	2-Methylnaphthalene	3.75	207266255	273.831 ng
7) T	Acenaphthylene	5.09	219363228	278.283 ng
8) T	Acenaphthene	5.43	231924220	273.883 ng
9) T	Fluorene	6.41	226209829	275.733 ng
10) T	Phenanthrene	8.45	228606131	284.775 ng
11) T	Anthracene	8.56	228772674	270.165 ng
12) T	Fluoroanthene	11.30	236597041	278.140 ng
13) T	Pyrene	11.80	238859648	273.226 ng
14) T	Benzo[a]anthracene	14.89	232257650	284.090 ng
15) T	Chrysene	14.99	225808914	259.790 ng
16) T	Benzo[b]fluoranthene	17.56	477050379	272.791 ng
17) T	Benzo[k]fluoranthene	17.56	477050379	272.791 ng
18) T	Benzo[a]pyrene	18.15	238808217	272.158 ng
19) T	Indeno[1,2,3-cd]pyrene	20.51	455867041	282.297 ng
20) T	Dibenz[a,h]anthracene	20.51	455867041	282.297 ng
21) T	Benzo[g,h,i]perylene	20.85	239677308	264.582 ng
22) H	C10-C12	2.70	397655160	558.676 ng
23) H	C12-C16	4.95	671499376	819.734 ng
24) H	C16-C21	9.60	1168261140	1363.935 ng
25) H	C21-C36	17.20	1902137812	2144.192 ng

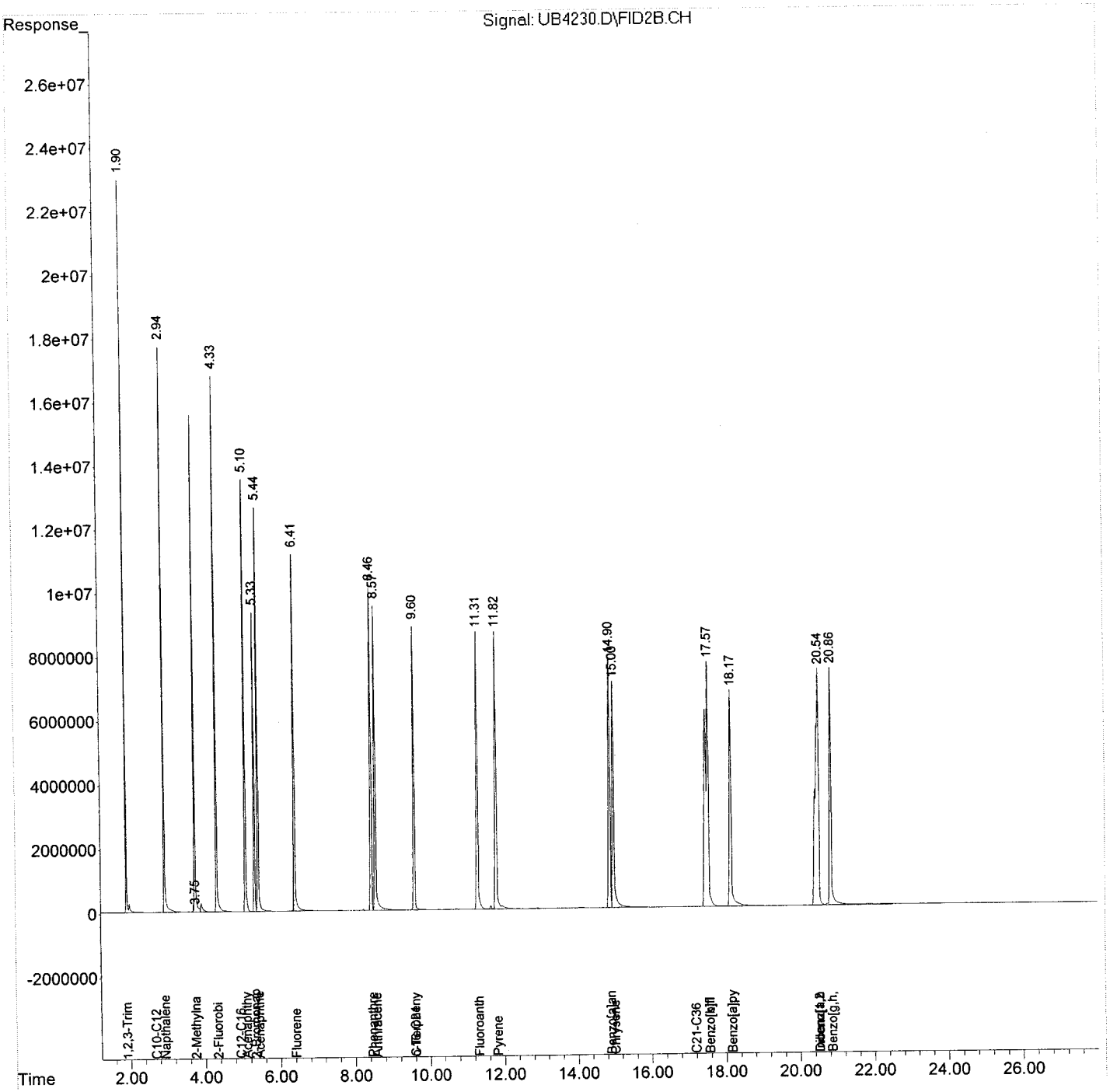
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4230.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ARO_L3_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:20:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4231.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ARO_L2_IAS_4664,100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:21:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.32	77117517	88.317 ng
Spiked Amount	50.000		Recovery =	176.63%
2) S	2-Bromonaphthalene	5.32	43377331	80.752 ng
Spiked Amount	50.000		Recovery =	161.50%
3) S	o-Terphenyl	9.58	63926856	88.201 ng
Spiked Amount	50.000		Recovery =	176.40%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	60815255	89.284 ng
5) T	Napthalene	2.94	64127242	88.086 ng
6) T	2-Methylnaphthalene	3.75	68698485	90.761 ng
7) T	Acenaphthylene	5.08	69454438	88.110 ng
8) T	Acenaphthene	5.41	80243447	94.761 ng
9) T	Fluorene	6.39	72574313	88.463 ng
10) T	Phenanthrene	8.43	71588095	89.178 ng
11) T	Anthracene	8.54	74547136	88.035 ng
12) T	Fluoroanthene	11.28	75790178	89.098 ng
13) T	Pyrene	11.78	77605866	88.772 ng
14) T	Benzo[a]anthracene	14.86	70202549	85.869 ng
15) T	Chrysene	14.95	80362939	92.456 ng
16) T	Benzo[b]fluoranthene	17.45	155370472	88.845 ng
17) T	Benzo[k]fluoranthene	17.45	155370472	88.845 ng
18) T	Benzo[a]pyrene	18.12	77731696	88.587 ng
19) T	Indeno[1,2,3-cd]pyrene	20.40	142555136	88.278 ng
20) T	Dibenz[a,h]anthracene	20.40	142555136	88.278 ng
21) T	Benzo[g,h,i]perylene	20.80	80847142	89.248 ng
22) H	C10-C12	2.70	125844213	176.802 ng
23) H	C12-C16	4.95	220403489	269.058 ng
24) H	C16-C21	9.60	378695509	442.124 ng
25) H	C21-C36	17.20	627351740	707.185 ng

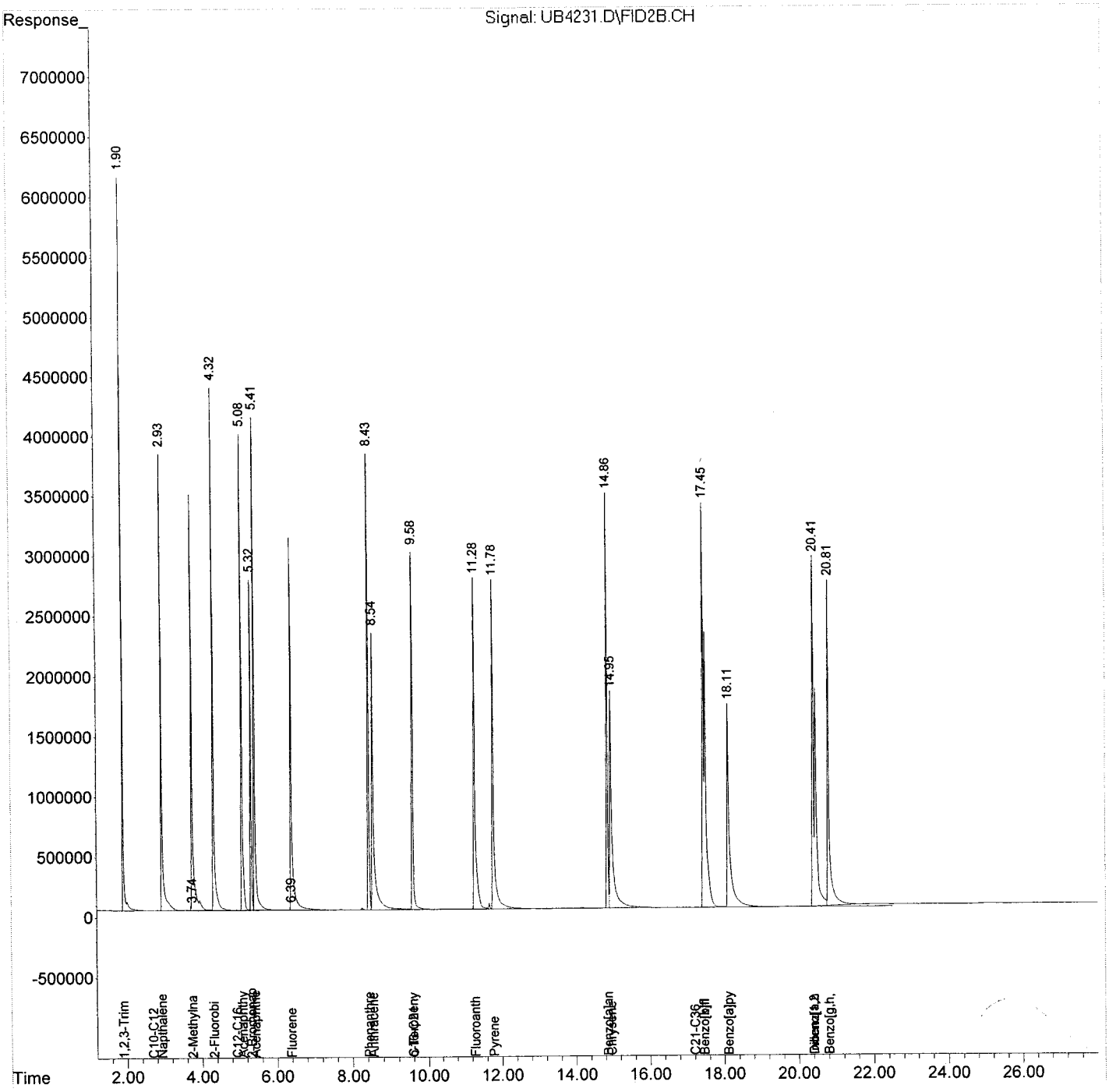
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4231.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ARO_L2_IAS_4664,100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:21:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4232.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ARO_L1_IAS_4665,20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:36:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.35	17229985	19.732	ng	
Spiked Amount	50.000		Recovery =	39.46%		
2) S	2-Bromonaphthalene	5.42	9298294	17.310	ng	m
Spiked Amount	50.000		Recovery =	34.62%		
3) S	o-Terphenyl	9.59	15067581	20.789	ng	
Spiked Amount	50.000		Recovery =	41.58%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.91	13133015	19.281	ng	
5) T	Napthalene	2.99	13685394	18.798	ng	
6) T	2-Methylnaphthalene	3.80	15064544	19.903	ng	
7) T	Acenaphthylene	5.11	15571055	19.753	ng	
8) T	Acenaphthene	5.43	14505706	17.130	ng	m
9) T	Fluorene	6.45	16561941	20.188	ng	
10) T	Phenanthrene	8.47	14311370	17.828	ng	
11) T	Anthracene	8.60	18714585	22.101	ng	
12) T	Fluoroanthene	11.33	16778527	19.725	ng	
13) T	Pyrene	11.83	18860134	21.574	ng	
14) T	Benzo[a]anthracene	14.90	15437122	18.882	ng	m
15) T	Chrysene	15.01	20091870	23.115	ng	m
16) T	Benzo[b]fluoranthene	17.54	36670113	20.969	ng	
17) T	Benzo[k]fluoranthene	17.54	36670113	20.969	ng	
18) T	Benzo[a]pyrene	18.23	18711315	21.324	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.51	29450552	18.237	ng	
20) T	Dibenz[a,h]anthracene	20.51	29450552	18.237	ng	
21) T	Benzo[g,h,i]perylene	20.87	20826517	22.991	ng	
22) H	C10-C12	2.70	27930599	39.240	ng	
23) H	C12-C16	4.95	50932986	62.177	ng	
24) H	C16-C21	9.60	89184571	104.122	ng	
25) H	C21-C36	17.20	158309943	178.456	ng	

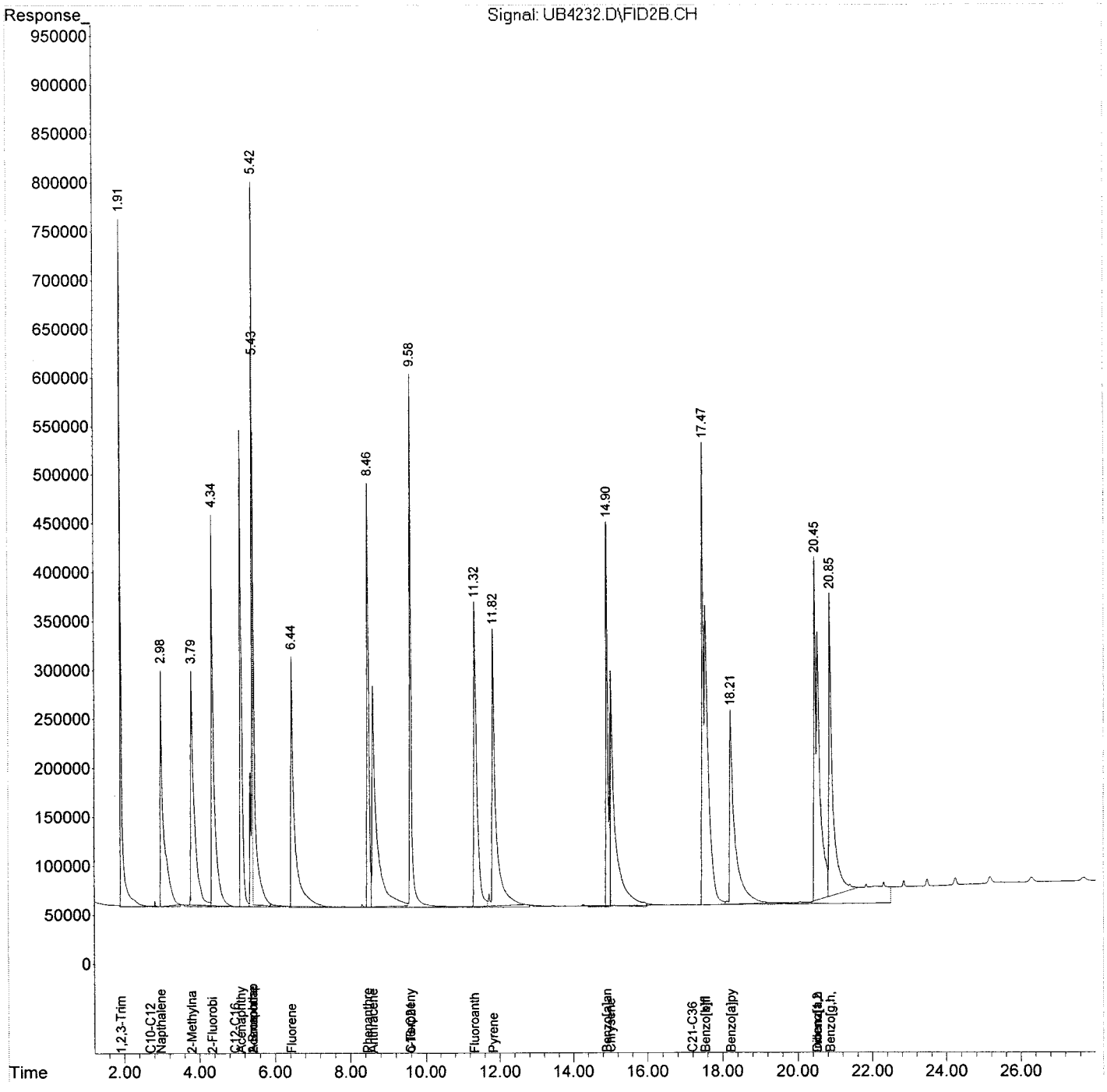
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4232.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ARO_L1_IAS_4665.20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:36:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-03-13\
Data File : UB4233.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:58:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.32	242422886	277.630 ng
Spiked Amount 50.000		Recovery =	555.26%
2) S 2-Bromonaphthalene	5.33	156327660	289.063 ng
Spiked Amount 50.000		Recovery =	578.13%
3) S o-Terphenyl	9.60	199620123	275.419 ng
Spiked Amount 50.000		Recovery =	550.84%
Target Compounds			
4) T 1,2,3-Trimethylbenzene	1.90	189186801	277.750 ng
5) T Napthalene	2.93	202860896	278.653 ng
6) T 2-Methylnaphthalene	3.75	205290886	271.221 ng
7) T Acenaphthylene	5.09	218041577	276.607 ng
8) T Acenaphthene	5.43	230702373	281.739 ng
9) T Fluorene	6.41	225265385	274.582 ng
10) T Phenanthrene	8.45	227937331	283.942 ng
11) T Anthracene	8.56	227849024	268.756 ng
12) T Fluoroanthene	11.30	236268038	277.753 ng
13) T Pyrene	11.81	238298167	272.584 ng
14) T Benzo[a]anthracene	14.89	234503188	282.799 ng
15) T Chrysene	14.99	222607024	260.075 ng
16) T Benzo[b]fluoranthene	17.56	475985042	272.182 ng
17) T Benzo[k]fluoranthene	17.56	475985042	272.182 ng
18) T Benzo[a]pyrene	18.16	237648276	271.110 ng
19) T Indeno[1,2,3-cd]pyrene	20.53	455836564	282.279 ng
20) T Dibenz[a,h]anthracene	20.53	455836564	282.279 ng
21) T Benzo[g,h,i]perylene	20.86	241601622	266.706 ng
22) H C10-C12	2.70	393155637	550.613 ng
23) H C12-C16	4.95	667247563	815.494 ng
24) H C16-C21	9.60	1170243322	1366.597 ng
25) H C21-C36	17.20	1896484173	2137.819 ng

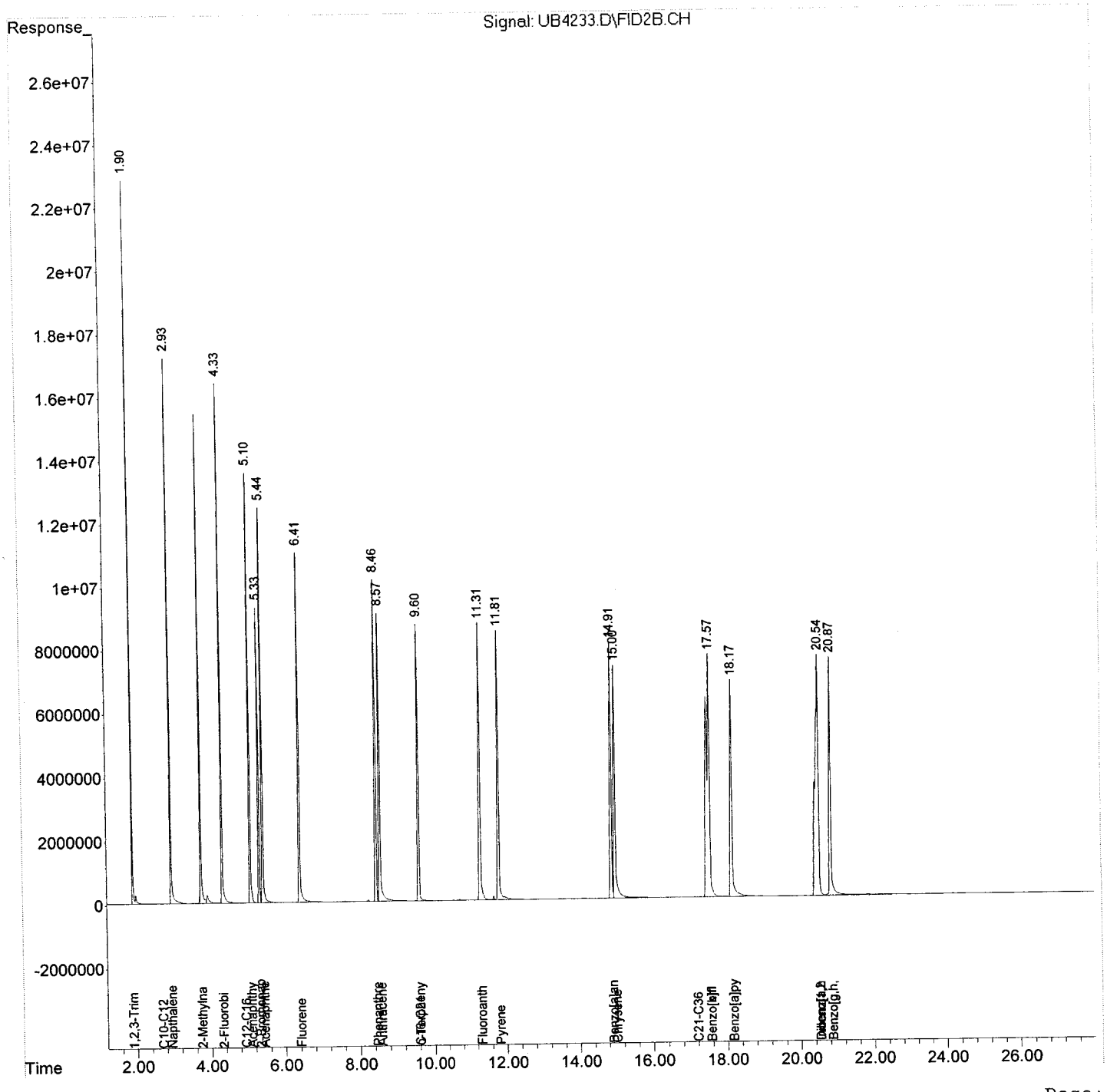
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-03-13\
Data File : UB4233.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ARO_C_IAS_4663.250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:58:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-U

Data File: U6382.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.29	1.22	1.36	547115	600199	9.70
n-Decane (C10)	1.78	1.72	1.86	563917	617649	9.53
n-Dodecane (C12)	3.05	2.98	3.14	581409	639543	10.00
n-Tetradecane (C14)	4.65	4.57	4.75	587848	640768	9.00
n-Hexadecane (C16)	6.63	6.54	6.76	576949	612508	6.16
n-Octadecane (C18)	8.77	8.67	8.91	554049	571861	3.21
n-Eicosane (C20)	10.86	10.76	11.00	538965	543891	0.91
n-Heneicosane (C21)	11.86	11.74	12.02	534580	539154	0.86
n-Docosane (C22)	12.82	12.70	12.98	527476	529686	0.42
n-Tetracosane (C24)	14.64	14.51	14.81	518035	531613	2.62
n-Hexacosane (C26)	16.33	16.20	16.50	510509	551012	7.93
n_Octacosane (C28)	17.92	17.79	18.09	514391	578450	12.45
n-Triacontane (C30)	19.39	19.26	19.56	525714	596443	13.45
n-Dotriacontane (C32)	20.76	20.66	20.90	548364	615895	12.32
n-Tetratriacontane (C34)	21.58	21.47	21.71	558667	618098	10.64
n-Hexatriacontane (C36)	22.34	22.21	22.51	571713	626113	9.52
n-Octatriacontane (C38)	23.28	23.16	23.46	562047	611814	8.85
n-Tetracontane (40)	24.50	24.38	24.68	543032	587257	8.14
C9-C12	2.25	2.15	2.35	1737914	1870160	7.61
C12-C16	5.20	5.10	5.30	1214566	1276499	5.10
C16-C21	9.65	9.54	9.76	1674249	1684445	0.61
C21-C40	18.70	18.59	18.81	5880347	6033776	2.61

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/25/2013 **Instrument ID:** GC-U

Data File: U6398.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.29	1.22	1.36	547115	632056	15.53
n-Decane (C10)	1.78	1.72	1.86	563917	646758	14.69
n-Dodecane (C12)	3.05	2.98	3.14	581409	661802	13.83
n-Tetradecane (C14)	4.65	4.57	4.75	587848	653302	11.13
n-Hexadecane (C16)	6.63	6.54	6.76	576949	616147	6.79
n-Octadecane (C18)	8.77	8.67	8.91	554049	570258	2.93
n-Eicosane (C20)	10.86	10.76	11.00	538965	539555	0.11
n-Heneicosane (C21)	11.86	11.74	12.02	534580	535221	0.12
n-Docosane (C22)	12.82	12.70	12.98	527476	527001	0.09
n-Tetracosane (C24)	14.64	14.51	14.81	518035	534697	3.22
n-Hexacosane (C26)	16.33	16.20	16.50	510509	557431	9.19
n_Octacosane (C28)	17.92	17.79	18.09	514391	587299	14.17
n-Triacontane (C30)	19.39	19.26	19.56	525714	607527	15.56
n-Dotriacontane (C32)	20.76	20.66	20.90	548364	627725	14.47
n-Tetratriacontane (C34)	21.58	21.47	21.71	558667	629934	12.76
n-Hexatriacontane (C36)	22.35	22.21	22.51	571713	637937	11.58
n-Octatriacontane (C38)	23.28	23.16	23.46	562047	622971	10.84
n-Tetracontane (40)	24.50	24.38	24.68	543032	594819	9.54
C9-C12	2.25	2.15	2.35	1737914	1952746	12.36
C12-C16	5.20	5.10	5.30	1214566	1292342	6.40
C16-C21	9.65	9.54	9.76	1674249	1690081	0.95
C21-C40	18.70	18.59	18.81	5880347	6139477	4.41

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6382.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ALI_C_IAS_4669.250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:26:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.70	104194674	248.964 ng
Spiked Amount	50.000		Recovery =	497.93%
24) S	o-Terphenyl	9.70	144815731	251.150 ng
Spiked Amount	50.000		Recovery =	502.30%
25) S	Naphthalene	2.97	167495529	273.663 ng
Spiked Amount	50.000		Recovery =	547.33%
26) S	2-Methylnaphthalene	3.80	172244303	273.276 ng
Spiked Amount	50.000		Recovery =	546.55%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	150049820	274.256 ng
3) T	n-Decane (C10)	1.78	154412179	273.821 ng
4) T	n-Dodecane (C12)	3.05	159885737	274.997 ng
5) T	n-Tetradecane (C14)	4.65	160191879	272.506 ng
6) T	n-Hexadecane (C16)	6.63	153126972	265.408 ng
7) T	n-Octadecane (C18)	8.77	142965246	258.037 ng
8) T	n-Eicosane (C20)	10.86	135972646	252.285 ng
9) T	n-Heneicosane (C21)	11.86	134788471	252.139 ng
10) T	n-Docosane (C22)	12.82	132421388	251.047 ng
11) T	n-Tetracosane (C24)	14.64	132903221	256.552 ng
12) T	n-Hexacosane (C26)	16.33	137753104	269.835 ng
13) T	n-Octacosane (C28)	17.92	144612464	281.133 ng
14) T	n-Triacontane (C30)	19.39	149110753	283.635 ng
15) T	n-Dotriacontane (C32)	20.76	153973634	280.788 ng
16) T	n-Tetratriacontane (C34)	21.58	154524466	276.595 ng
17) T	n-Hexatriacontane (C36)	22.34	156528285	273.788 ng
18) T	n-Octatriacontane (C38)	23.28	152953528	272.137 ng
19) T	n-Tetracontane (C40)	24.50	146814296	270.360 ng
20) H	C9-C12	2.25	467539963	807.071 ng
21) H	C12-C16	5.20	319124824	525.496 ng
22) H	C16-C21	9.65	421111359	754.568 ng
23) H	C21-C40	18.70	1508444092	2565.230 ng

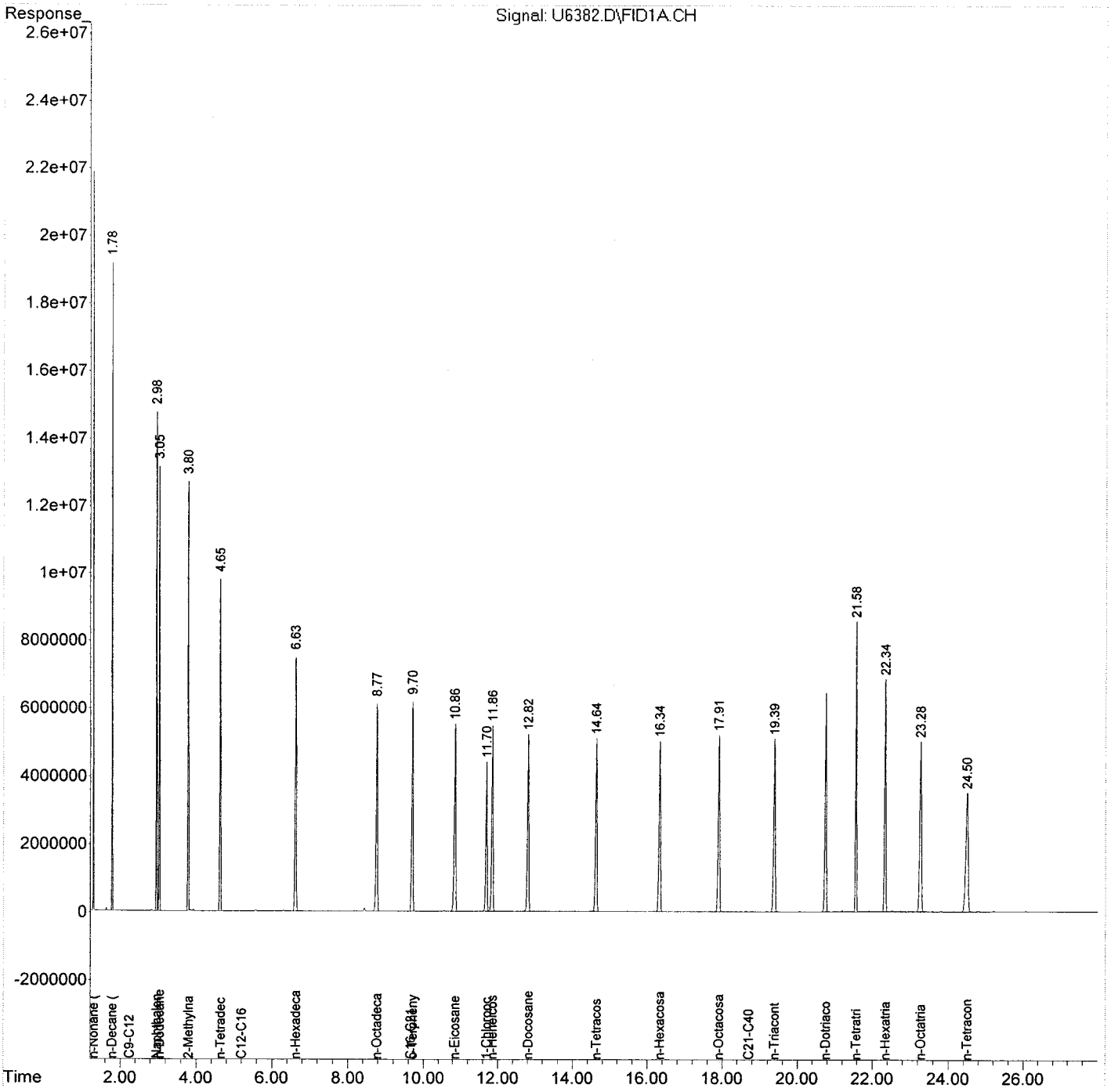
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6382.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:26:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6398.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:28:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.70	103238663	246.680 ng
Spiked Amount 50.000		Recovery =	493.36%
24) S o-Terphenyl	9.70	144411551	250.449 ng
Spiked Amount 50.000		Recovery =	500.90%
25) S Naphthalene	2.98	173538591	283.536 ng
Spiked Amount 50.000		Recovery =	567.07%
26) S 2-Methylnaphthalene	3.80	177013804	280.844 ng
Spiked Amount 50.000		Recovery =	561.69%
Target Compounds			
2) T n-Nonane (C9)	1.29	158014116	288.813 ng
3) T n-Decane (C10)	1.78	161689470	286.725 ng
4) T n-Dodecane (C12)	3.05	165450416	284.568 ng
5) T n-Tetradecane (C14)	4.65	163325557	277.836 ng
6) T n-Hexadecane (C16)	6.63	154036697	266.985 ng
7) T n-Octadecane (C18)	8.77	142564501	257.314 ng
8) T n-Eicosane (C20)	10.86	134888764	250.273 ng
9) T n-Heneicosane (C21)	11.86	133805256	250.300 ng
10) T n-Docosane (C22)	12.82	131750125	249.775 ng
11) T n-Tetracosane (C24)	14.64	133674271	258.041 ng
12) T n-Hexacosane (C26)	16.33	139357776	272.978 ng
13) T n-Octacosane (C28)	17.92	146824668	285.434 ng
14) T n-Triacontane (C30)	19.39	151881661	288.905 ng
15) T n-Dotriacontane (C32)	20.76	156931278	286.181 ng
16) T n-Tetratriacontane (C34)	21.58	157483528	281.892 ng
17) T n-Hexatriacontane (C36)	22.35	159484251	278.958 ng
18) T n-Octatriacontane (C38)	23.28	155742741	277.099 ng
19) T n-Tetracontane (C40)	24.50	148704848	273.842 ng
20) H C9-C12	2.25	488186607	842.711 ng
21) H C12-C16	5.20	323085540	532.018 ng
22) H C16-C21	9.65	422520221	757.092 ng
23) H C21-C40	18.70	1534869375	2610.168 ng

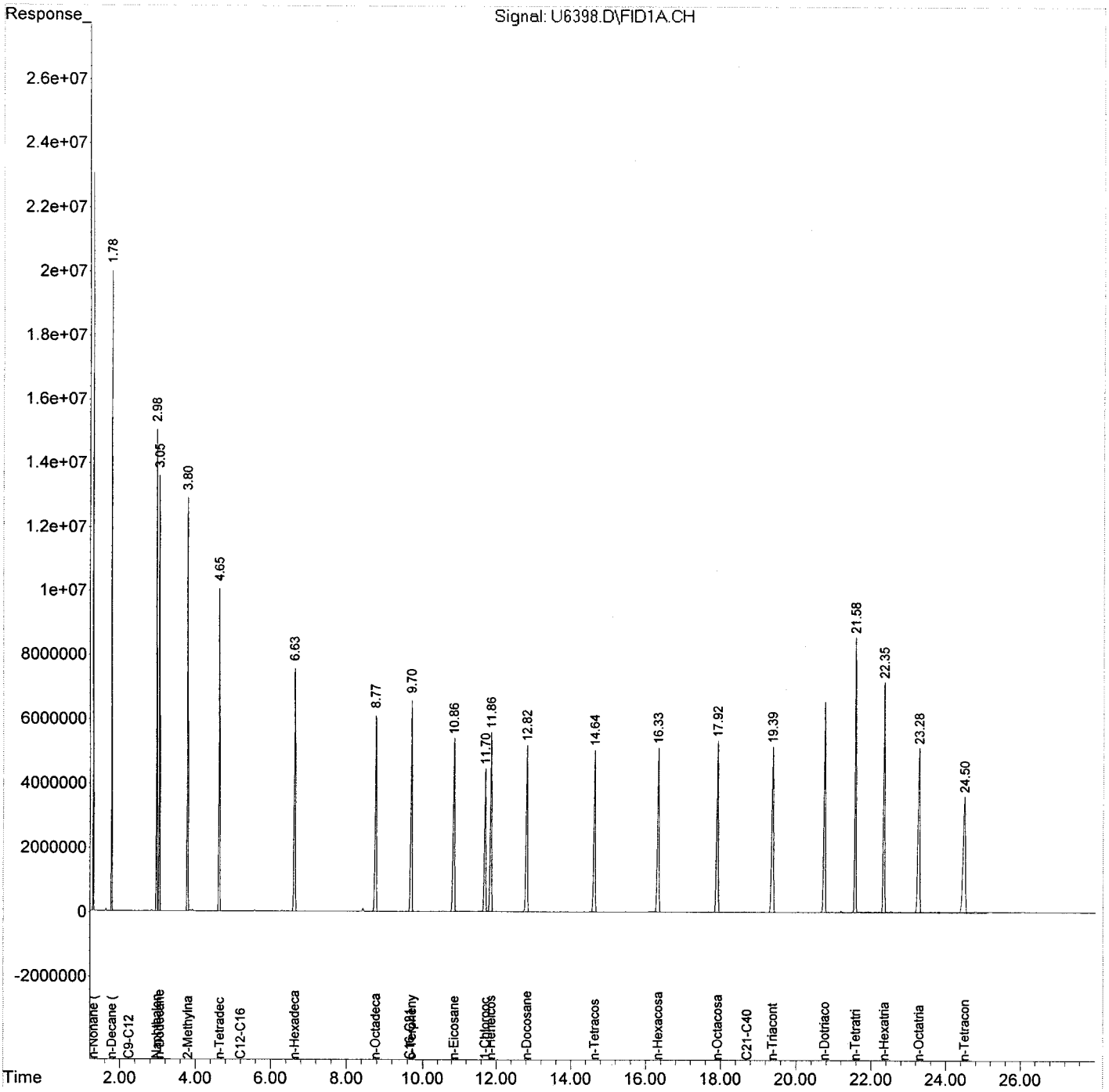
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6398.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ALI_C_IAS_4669.250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:28:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-U

Data File: UB4457.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.89	1.79	2.03	681141	628887	7.67
Napthalene	2.92	2.83	3.07	728006	672030	7.69
2-Methylnaphthalene	3.73	3.64	3.88	756914	680091	10.15
Acenaphthylene	5.07	4.98	5.22	788273	719504	8.72
Acenaphthene	5.40	5.32	5.56	868756	771578	11.19
Fluorene	6.37	6.30	6.54	820394	754143	8.08
Phenanthrene	8.42	8.35	8.59	802759	772568	3.76
Anthracene	8.52	8.47	8.71	847793	740615	12.64
Fluoroanthene	11.27	11.20	11.44	850639	805814	5.27
Pyrene	11.77	11.71	11.95	874219	812442	7.07
Benzo[a]anthracene	14.85	14.79	15.03	829224	798882	3.66
Chrysene	14.95	14.90	15.14	855934	773040	9.68
Benzo[b]fluoranthene	17.53	17.45	17.69	1748775	1640367	6.20
Benzo[k]fluoranthene	17.53	17.45	17.69	1748775	1641318	6.14
Benzo[a]pyrene	18.12	18.08	18.32	876576	812911	7.26
Indeno[1,2,3-cd]pyrene	20.48	20.42	20.66	1614847	1578636	2.24
Dibenz[a,h]anthracene	20.48	20.42	20.66	1614847	1578636	2.24
Benzo[g,h,i]perylene	20.82	20.76	21.00	905872	814481	10.09
C10-C12	2.70	2.58	2.82	1428065	1303819	8.70
C12-C16	4.95	4.83	5.07	2454639	2216699	9.69
C16-C21	9.60	9.48	9.72	4281595	3969619	7.29
C21-C36	17.20	17.08	17.32	7096892	6539095	7.86

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/25/2013 **Instrument ID:** GC-U

Data File: UB4473.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.89	1.79	2.03	681141	661294	2.91
Napthalene	2.92	2.83	3.07	728006	704358	3.25
2-Methylnaphthalene	3.73	3.64	3.88	756914	709956	6.20
Acenaphthylene	5.06	4.98	5.22	788273	750221	4.83
Acenaphthene	5.40	5.32	5.56	868756	793073	8.71
Fluorene	6.37	6.30	6.54	820394	776571	5.34
Phenanthrene	8.41	8.35	8.59	802759	784556	2.27
Anthracene	8.52	8.47	8.71	847793	753970	11.07
Fluoroanthene	11.26	11.20	11.44	850639	826401	2.85
Pyrene	11.77	11.71	11.95	874219	822467	5.92
Benzo[a]anthracene	14.85	14.79	15.03	829224	798365	3.72
Chrysene	14.95	14.90	15.14	855934	780915	8.76
Benzo[b]fluoranthene	17.52	17.45	17.69	1748775	1643394	6.03
Benzo[k]fluoranthene	17.52	17.45	17.69	1748775	1643394	6.03
Benzo[a]pyrene	18.12	18.08	18.32	876576	818126	6.67
Indeno[1,2,3-cd]pyrene	20.47	20.42	20.66	1614847	1519711	5.89
Dibenz[a,h]anthracene	20.47	20.42	20.66	1614847	1519711	5.89
Benzo[g,h,i]perylene	20.82	20.76	21.00	905872	741802	18.11
C10-C12	2.70	2.58	2.82	1428065	1371443	3.96
C12-C16	4.95	4.83	5.07	2454639	2296049	6.46
C16-C21	9.60	9.48	9.72	4281595	4064814	5.06
C21-C36	17.20	17.08	17.32	7096892	6554552	7.64

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4457.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:29:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.30	199507168	228.482	ng	
Spiked Amount	50.000		Recovery =	456.96%		
2) S	2-Bromonaphthalene	5.30	129106427	238.729	ng	
Spiked Amount	50.000		Recovery =	477.46%		
3) S	o-Terphenyl	9.56	161874388	223.341	ng	
Spiked Amount	50.000		Recovery =	446.68%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.89	157221738	230.821	ng	
5) T	Napthalene	2.92	168007475	230.778	ng	
6) T	2-Methylnaphthalene	3.73	170022696	224.626	ng	
7) T	Acenaphthylene	5.07	179875939	228.190	ng	
8) T	Acenaphthene	5.40	192894411	235.567	ng	
9) T	Fluorene	6.37	188535766	229.811	ng	
10) T	Phenanthrene	8.42	193142086	240.598	ng	
11) T	Anthracene	8.52	185153779	218.395	ng	
12) T	Fluoroanthene	11.27	201453554	236.826	ng	
13) T	Pyrene	11.77	203110584	232.334	ng	
14) T	Benzo[a]anthracene	14.85	199720392	240.852	ng	
15) T	Chrysene	14.95	193259915	225.788	ng	
16) T	Benzo[b]fluoranthene	17.53	410091698	234.502	ng	m
17) T	Benzo[k]fluoranthene	17.53	410329493	234.638	ng	m
18) T	Benzo[a]pyrene	18.12	203227761	231.843	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.48	394658989	244.394	ng	
20) T	Dibenz[a,h]anthracene	20.48	394658989	244.394	ng	
21) T	Benzo[g,h,i]perylene	20.82	203620156	224.778	ng	
22) H	C10-C12	2.70	325954843	456.499	ng	
23) H	C12-C16	4.95	554174703	677.299	ng	
24) H	C16-C21	9.60	992404682	1158.919	ng	
25) H	C21-C36	17.20	1634773822	1842.805	ng	

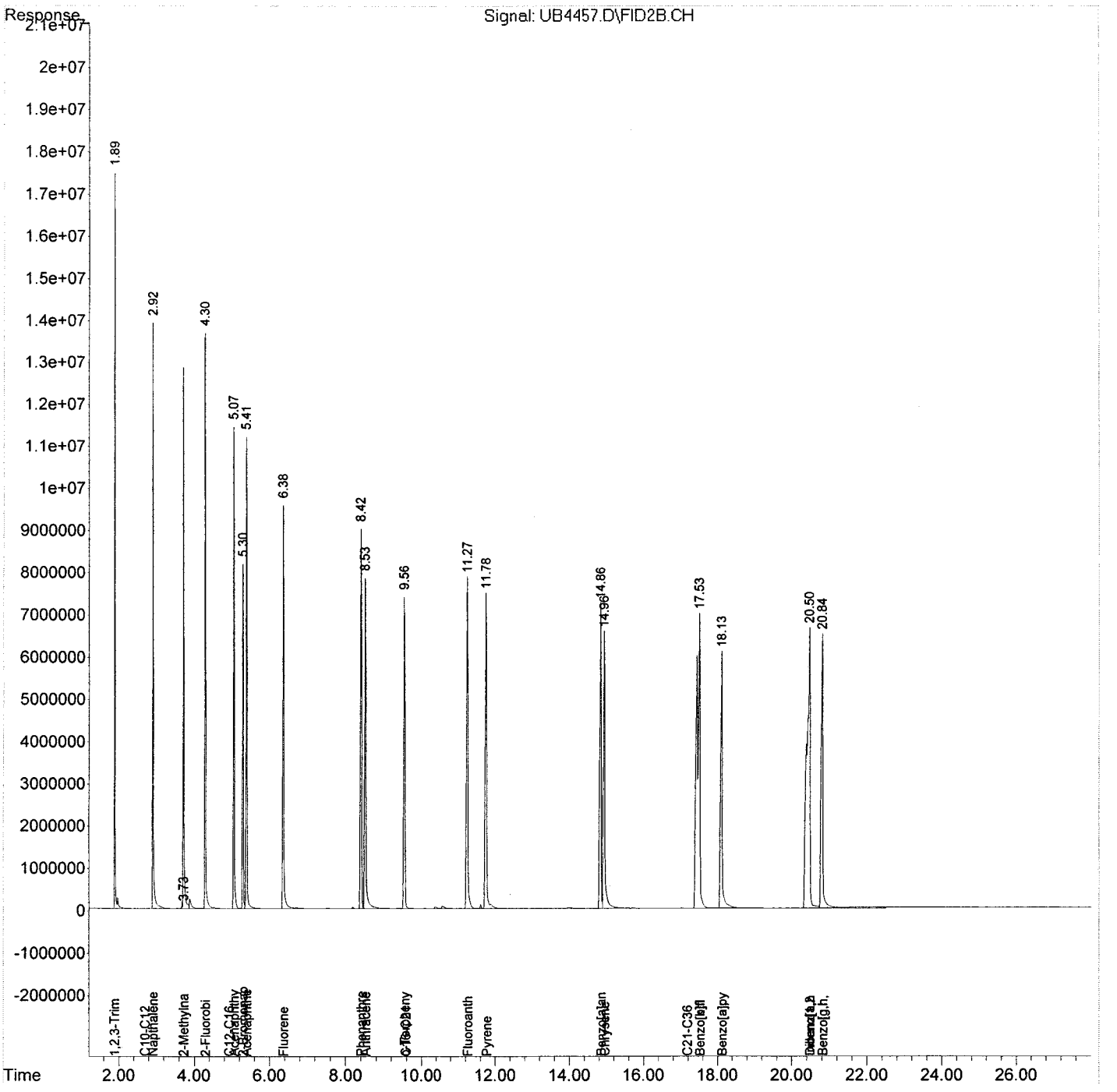
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4457.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:29:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4473.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:36:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.30	206970605	237.029 ng
Spiked Amount	50.000		Recovery =	474.06%
2) S	2-Bromonaphthalene	5.30	134589914	248.868 ng
Spiked Amount	50.000		Recovery =	497.74%
3) S	o-Terphenyl	9.56	164254274	226.624 ng
Spiked Amount	50.000		Recovery =	453.25%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.89	165323617	242.716 ng
5) T	Napthalene	2.92	176089523	241.879 ng
6) T	2-Methylnaphthalene	3.73	177488891	234.490 ng
7) T	Acenaphthylene	5.06	187555285	237.932 ng
8) T	Acenaphthene	5.40	198268307	242.129 ng
9) T	Fluorene	6.37	194142763	236.646 ng
10) T	Phenanthrene	8.41	196138997	244.331 ng
11) T	Anthracene	8.52	188492596	222.333 ng
12) T	Fluoroanthene	11.26	206600340	242.877 ng
13) T	Pyrene	11.77	205616851	235.201 ng
14) T	Benzo[a]anthracene	14.85	199591297	240.697 ng
15) T	Chrysene	14.95	195228782	228.088 ng
16) T	Benzo[b]fluoranthene	17.52	410848525	234.935 ng
17) T	Benzo[k]fluoranthene	17.52	410848525	234.935 ng
18) T	Benzo[a]pyrene	18.12	204531510	233.330 ng
19) T	Indeno[1,2,3-cd]pyrene	20.47	379927788	235.272 ng
20) T	Dibenz[a,h]anthracene	20.47	379927788	235.272 ng
21) T	Benzo[g,h,i]perylene	20.82	185450384	204.720 ng
22) H	C10-C12	2.70	342860776	480.175 ng
23) H	C12-C16	4.95	574012226	701.544 ng
24) H	C16-C21	9.60	1016203600	1186.712 ng
25) H	C21-C36	17.20	1638638092	1847.161 ng

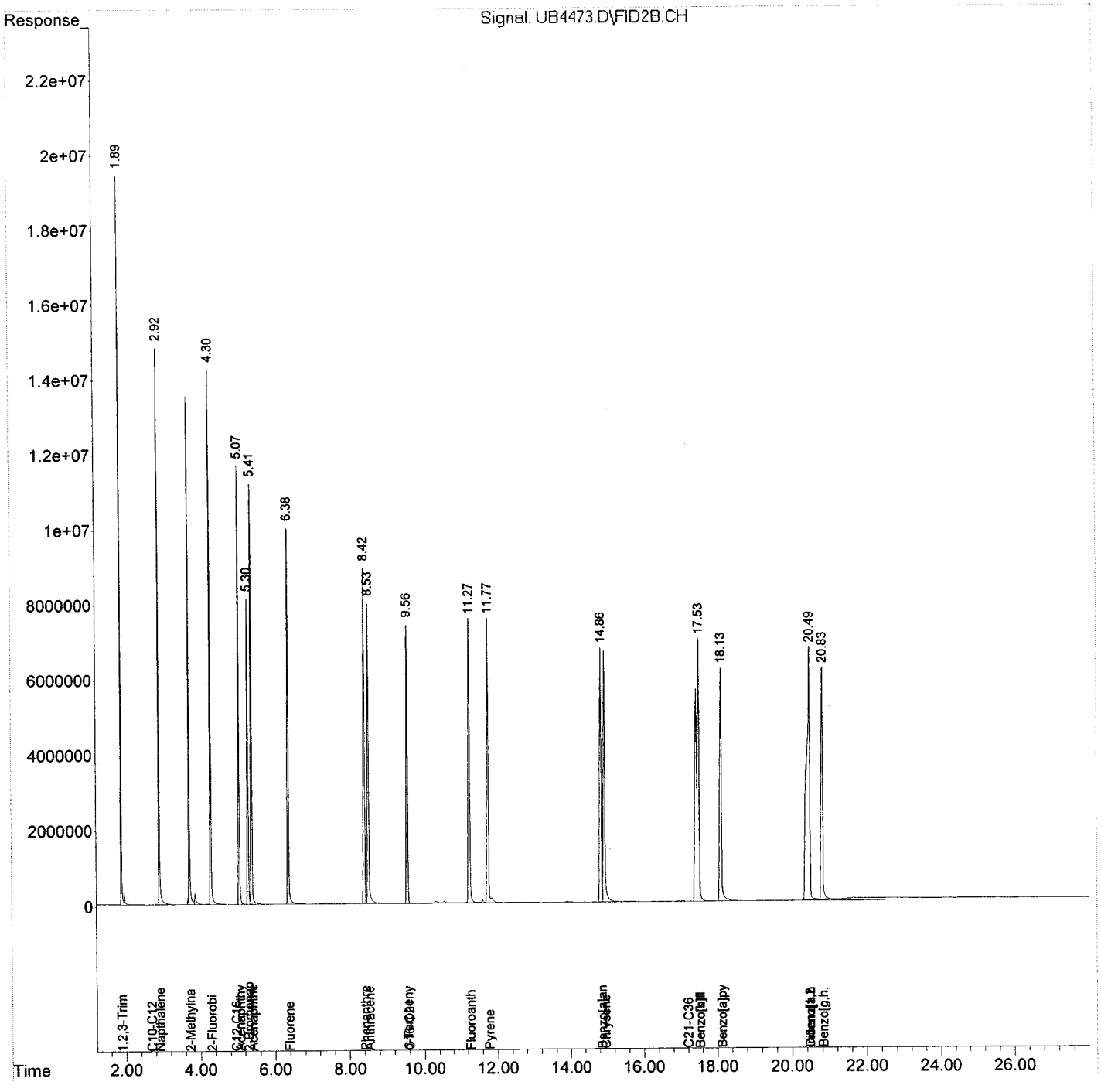
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4473.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:36:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6384.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ALI,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.67	15445792	36.906 ng
Spiked Amount	50.000		Recovery =	73.81%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	14020209	25.626 ng
3) T	n-Decane (C10)	1.78	20405230	36.185 ng
4) T	n-Dodecane (C12)	3.04	24020905	41.315 ng
5) T	n-Tetradecane (C14)	4.63	26300822	44.741 ng
6) T	n-Hexadecane (C16)	6.61	26932608	46.681 ng
7) T	n-Octadecane (C18)	8.75	26241676	47.363 ng
8) T	n-Eicosane (C20)	10.83	24870846	46.146 ng
9) T	n-Heneicosane (C21)	11.83	22910163	42.856 ng
10) T	n-Docosane (C22)	12.79	25381170	48.118 ng
11) T	n-Tetracosane (C24)	14.61	22454366	43.345 ng
12) T	n-Hexacosane (C26)	16.31	22998457	45.050 ng
13) T	n-Octacosane (C28)	17.88	23846695	46.359 ng
14) T	n-Triacontane (C30)	19.36	24904258	47.372 ng
15) T	n-Dotriacontane (C32)	20.73	24984223	45.561 ng
16) T	n-Tetratriacontane (C34)	21.55	26430099	47.309 ng
17) T	n-Hexatriacontane (C36)	22.31	25231335	44.133 ng
18) T	n-Octatriacontane (C38)	23.24	24272664	43.186 ng
19) T	n-Tetracontane (C40)	24.44	24103924	44.388 ng
20) H	C9-C12	2.25	36319229	62.695 ng
21) H	C12-C16	5.20	55593351	91.544 ng
22) H	C16-C21	9.65	77291756	138.495 ng
23) H	C21-C40	18.70	284874060	484.451 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

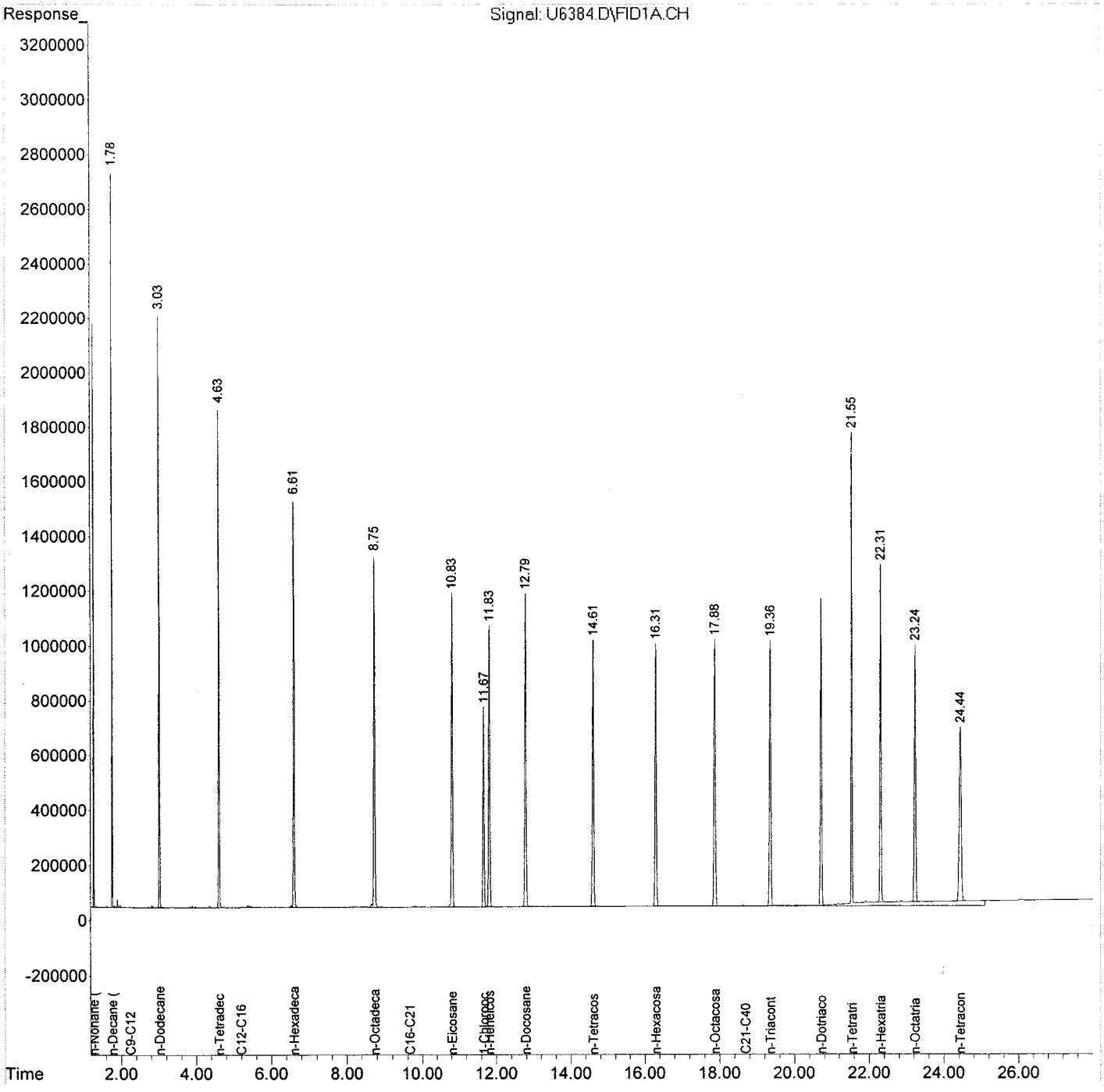
E13-09198 0427

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6384.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ALI,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6385.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ALI,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.67	16390333	39.163 ng
Spiked Amount	50.000		Recovery =	78.33%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	14533513	26.564 ng
3) T	n-Decane (C10)	1.78	21218096	37.626 ng
4) T	n-Dodecane (C12)	3.04	25193890	43.332 ng
5) T	n-Tetradecane (C14)	4.63	27869367	47.409 ng
6) T	n-Hexadecane (C16)	6.61	28789942	49.900 ng
7) T	n-Octadecane (C18)	8.75	28172476	50.848 ng
8) T	n-Eicosane (C20)	10.83	26560188	49.280 ng
9) T	n-Heneicosane (C21)	11.83	24323842	45.501 ng
10) T	n-Docosane (C22)	12.79	26745449	50.705 ng
11) T	n-Tetracosane (C24)	14.61	23253738	44.888 ng
12) T	n-Hexacosane (C26)	16.30	23467706	45.969 ng
13) T	n-Octacosane (C28)	17.88	24207080	47.060 ng
14) T	n-Triacontane (C30)	19.36	25311383	48.147 ng
15) T	n-Dotriacontane (C32)	20.73	25385104	46.292 ng
16) T	n-Tetratriacontane (C34)	21.54	26801571	47.974 ng
17) T	n-Hexatriacontane (C36)	22.30	25584943	44.751 ng
18) T	n-Octatriacontane (C38)	23.23	24565492	43.707 ng
19) T	n-Tetracontane (C40)	24.43	24398870	44.931 ng
20) H	C9-C12	2.25	37838586	65.317 ng
21) H	C12-C16	5.20	59309571	97.664 ng
22) H	C16-C21	9.65	82711690	148.207 ng
23) H	C21-C40	18.70	290620472	494.223 ng

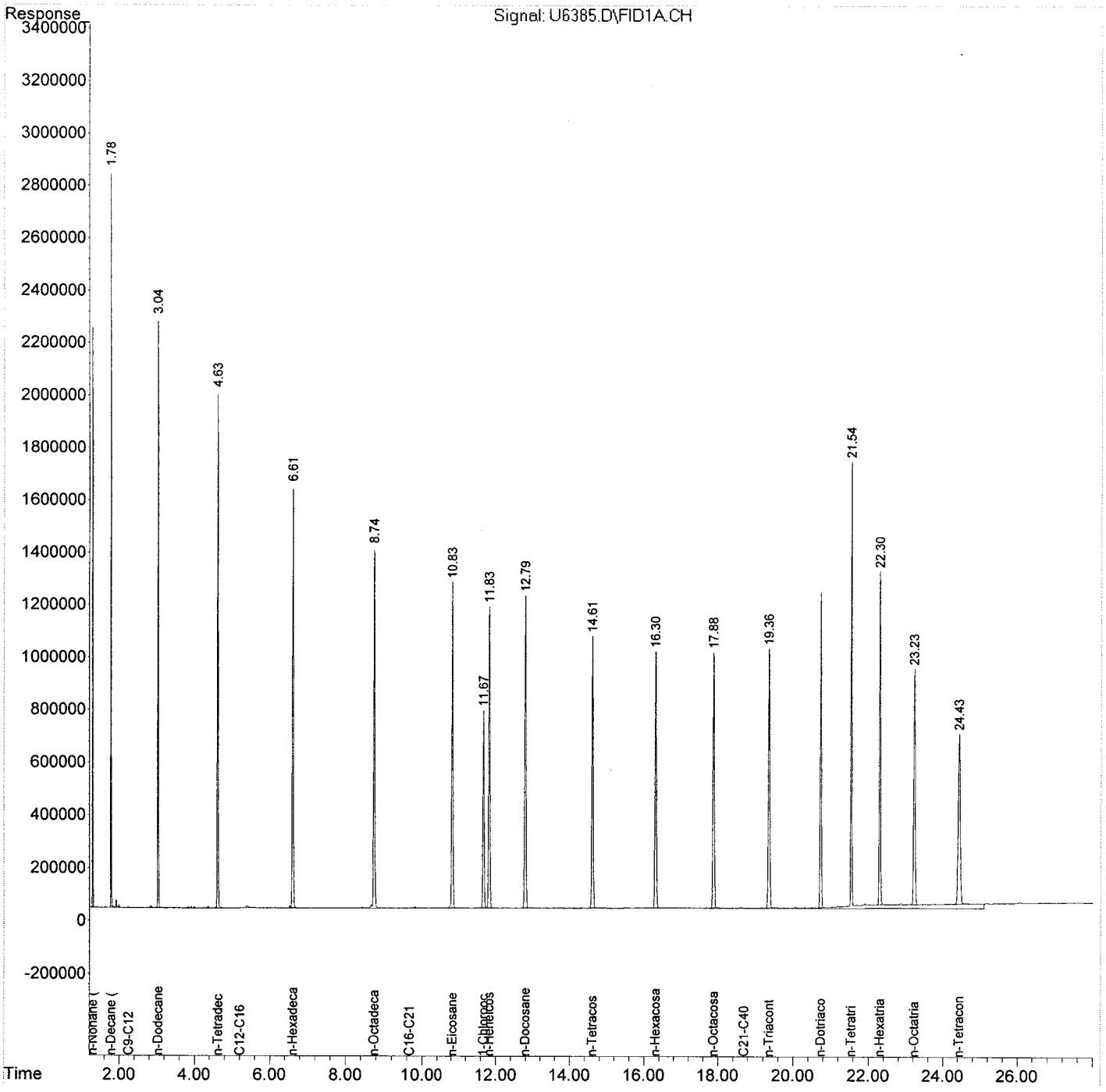
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6385.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ALI,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4459.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ARO,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.30	32033451	36.686	ng	
Spiked Amount	50.000		Recovery =	73.37%		
2) S	2-Bromonaphthalene	5.30	14015009	25.915	ng	
Spiked Amount	50.000		Recovery =	51.83%		
3) S	o-Terphenyl	9.54	24316288	33.550	ng	
Spiked Amount	50.000		Recovery =	67.10%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.89	19611000	28.791	ng	
5) T	Napthalene	2.93	26808921	36.825	ng	
6) T	2-Methylnaphthalene	3.74	29165160	38.532	ng	
7) T	Acenaphthylene	5.06	30592216	38.809	ng	
8) T	Acenaphthene	5.38	40419933	49.362	ng	
9) T	Fluorene	6.37	31798016	38.759	ng	
10) T	Phenanthrene	8.40	33453869	41.674	ng	
11) T	Anthracene	8.51	37080826	43.738	ng	
12) T	Fluoroanthene	11.25	36785835	43.245	ng	
13) T	Pyrene	11.74	38581490	44.133	ng	
14) T	Benzo[a]anthracene	14.82	33759473	40.712	ng	m
15) T	Chrysene	14.93	42361858	49.492	ng	
16) T	Benzo[b]fluoranthene	17.41	77871571	44.529	ng	
17) T	Benzo[k]fluoranthene	17.41	77871571	44.529	ng	
18) T	Benzo[a]pyrene	18.11	34756253	39.650	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.37	71313510	44.161	ng	
20) T	Dibenz[a,h]anthracene	20.37	71313510	44.161	ng	
21) T	Benzo[g,h,i]perylene	20.78	39232149	43.309	ng	
22) H	C10-C12	2.70	48487950	67.907	ng	
23) H	C12-C16	4.95	101887265	124.524	ng	
24) H	C16-C21	9.60	190333074	222.269	ng	
25) H	C21-C36	17.20	324212937	365.470	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

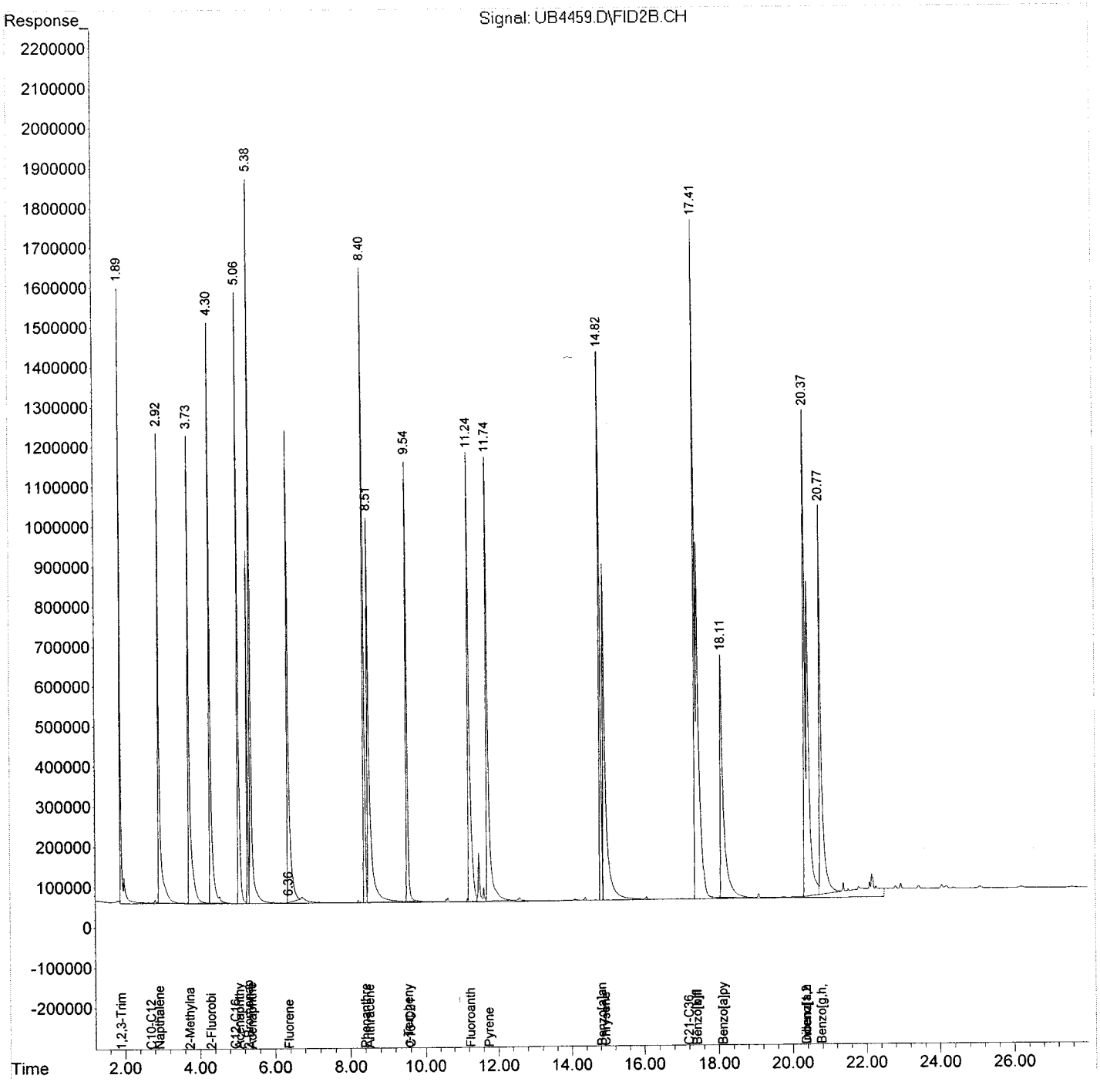
E13-09198 0431

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4459.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ARO,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4460.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ARO,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.30	30485811	34.913	ng	
Spiked Amount	50.000		Recovery =	69.83%		
2) S	2-Bromonaphthalene	5.30	13158076	24.330	ng	
Spiked Amount	50.000		Recovery =	48.66%		
3) S	o-Terphenyl	9.54	23349885	32.216	ng	
Spiked Amount	50.000		Recovery =	64.43%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.89	18337662	26.922	ng	
5) T	Napthalene	2.93	25316790	34.776	ng	
6) T	2-Methylnaphthalene	3.74	27742723	36.652	ng	
7) T	Acenaphthylene	5.06	29289224	37.156	ng	
8) T	Acenaphthene	5.39	39037968	47.674	ng	
9) T	Fluorene	6.37	30504785	37.183	ng	
10) T	Phenanthrene	8.40	32129880	40.024	ng	
11) T	Anthracene	8.52	34465462	40.653	ng	
12) T	Fluoroanthene	11.25	35055011	41.210	ng	
13) T	Pyrene	11.75	36770507	42.061	ng	
14) T	Benzo[a]anthracene	14.83	32046006	38.646	ng	m
15) T	Chrysene	14.93	40011266	46.746	ng	
16) T	Benzo[b]fluoranthene	17.41	73469206	42.012	ng	
17) T	Benzo[k]fluoranthene	17.41	73469206	42.012	ng	
18) T	Benzo[a]pyrene	18.11	32754484	37.366	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.36	68201136	42.234	ng	m
20) T	Dibenz[a,h]anthracene	20.36	68007375	42.114	ng	m
21) T	Benzo[g,h,i]perylene	20.78	37983927	41.931	ng	
22) H	C10-C12	2.70	45428510	63.622	ng	
23) H	C12-C16	4.95	97968071	119.734	ng	
24) H	C16-C21	9.60	182312108	212.902	ng	
25) H	C21-C36	17.20	307177854	346.267	ng	

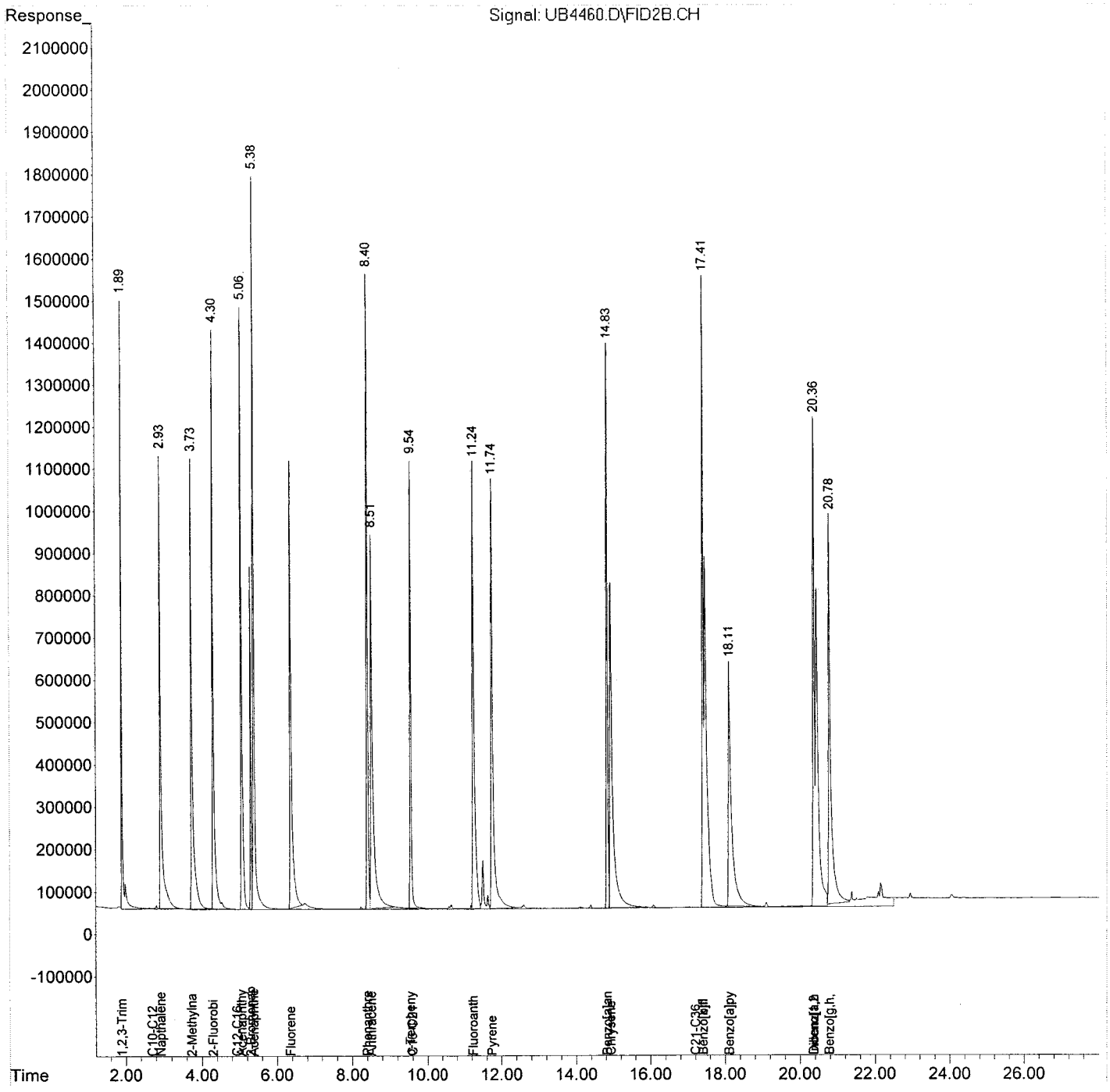
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4460.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ARO,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6397.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ALI,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:54:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	11.69	13667979	32.658	ng	m
Spiked Amount 50.000		Recovery = 65.32%			
Target Compounds					
20) H C9-C12	2.25	86903936	150.014	ng	
21) H C12-C16	5.20	5424904584	8933.073	ng	
22) H C16-C21	9.65	17084839265	30613.444	ng	
23) H C21-C40	18.70	6966882114	11847.740	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

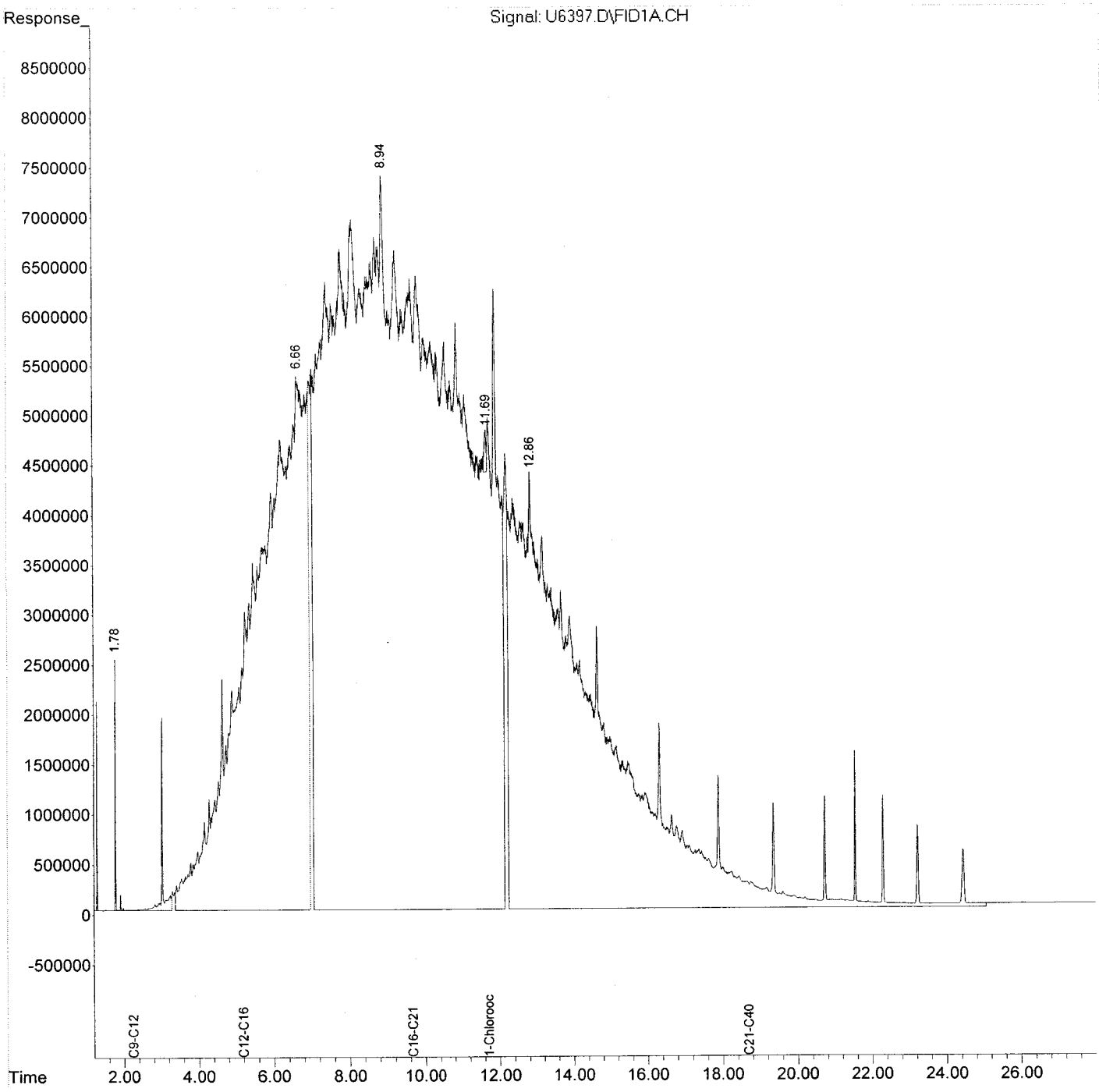
1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6397.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ALI,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:54:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4472.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ARO,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:50:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.29	32984773	37.775	ng	
Spiked Amount 50.000		Recovery =	75.55%		
2) S 2-Bromonaphthalene	5.29	22467273	41.544	ng	m
Spiked Amount 50.000		Recovery =	83.09%		
3) S o-Terphenyl	9.56	26256898	36.227	ng	m
Spiked Amount 50.000		Recovery =	72.45%		
Target Compounds					
22) H C10-C12	2.70	49612767	69.483	ng	
23) H C12-C16	4.95	352519639	430.841	ng	
24) H C16-C21	9.60	4566519873	5332.732	ng	
25) H C21-C36	17.20	1215477719	1370.152	ng	

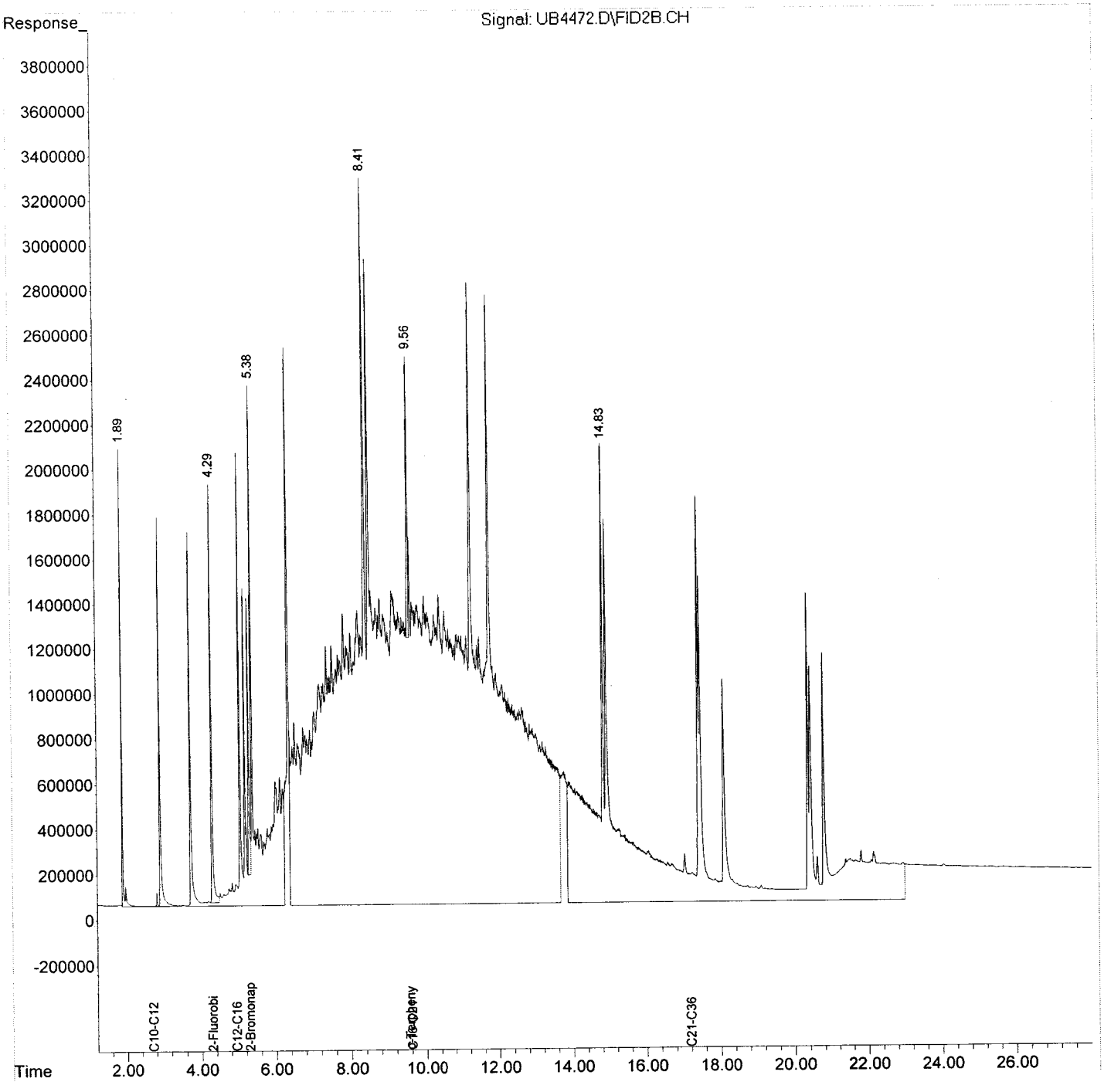
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4472.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ARO,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:50:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6386.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:58:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.69	4854811	11.600 ng
Spiked Amount	50.000		Recovery =	23.20%
	Target Compounds			
21) H	C12-C16	5.20	1081943857	1781.614 ng
22) H	C16-C21	9.65	3098241992	5551.580 ng
23) H	C21-C40	18.70	1130089022	1921.807 ng

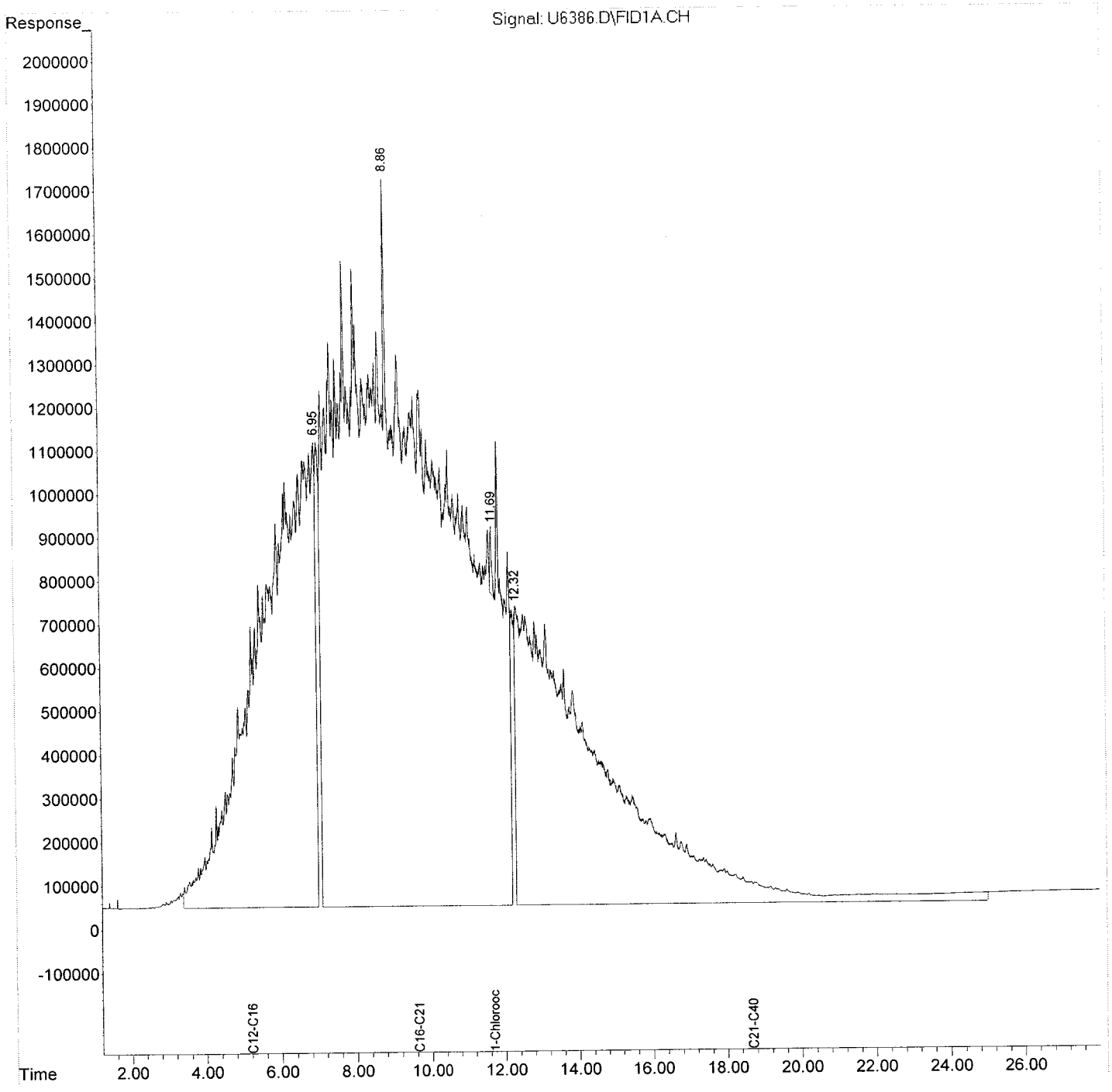
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6386.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:58:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4461.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:34:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.30	30757175	35.224	ng	m
Spiked Amount 50.000		Recovery = 70.45%			
2) S 2-Bromonaphthalene	5.31	23879668	44.156	ng	m
Spiked Amount 50.000		Recovery = 88.31%			
3) S o-Terphenyl	9.56	34064633	47.000	ng	m
Spiked Amount 50.000		Recovery = 94.00%			
Target Compounds					
23) H C12-C16	4.95	302024174	369.127	ng	
24) H C16-C21	9.60	4501917422	5257.290	ng	
25) H C21-C36	17.20	1202411541	1355.423	ng	

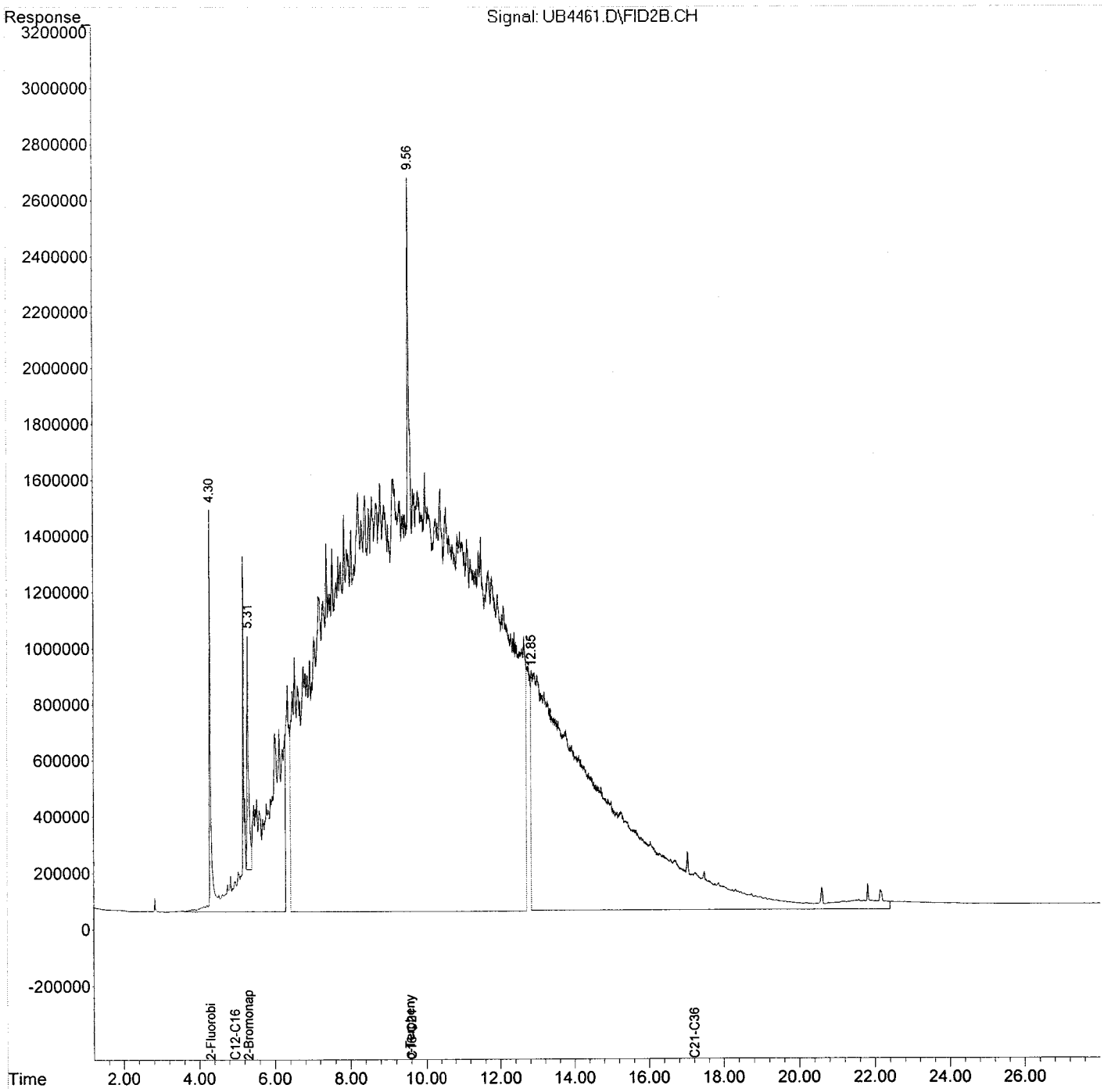
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4461.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:34:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6396.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 16 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:07:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.69	4705226	11.243 ng
Spiked Amount 50.000		Recovery =	22.49%
Target Compounds			
21) H C12-C16	5.20	1018321425	1676.848 ng
22) H C16-C21	9.65	2827162435	5065.847 ng
23) H C21-C40	18.70	1087443074	1849.284 ng

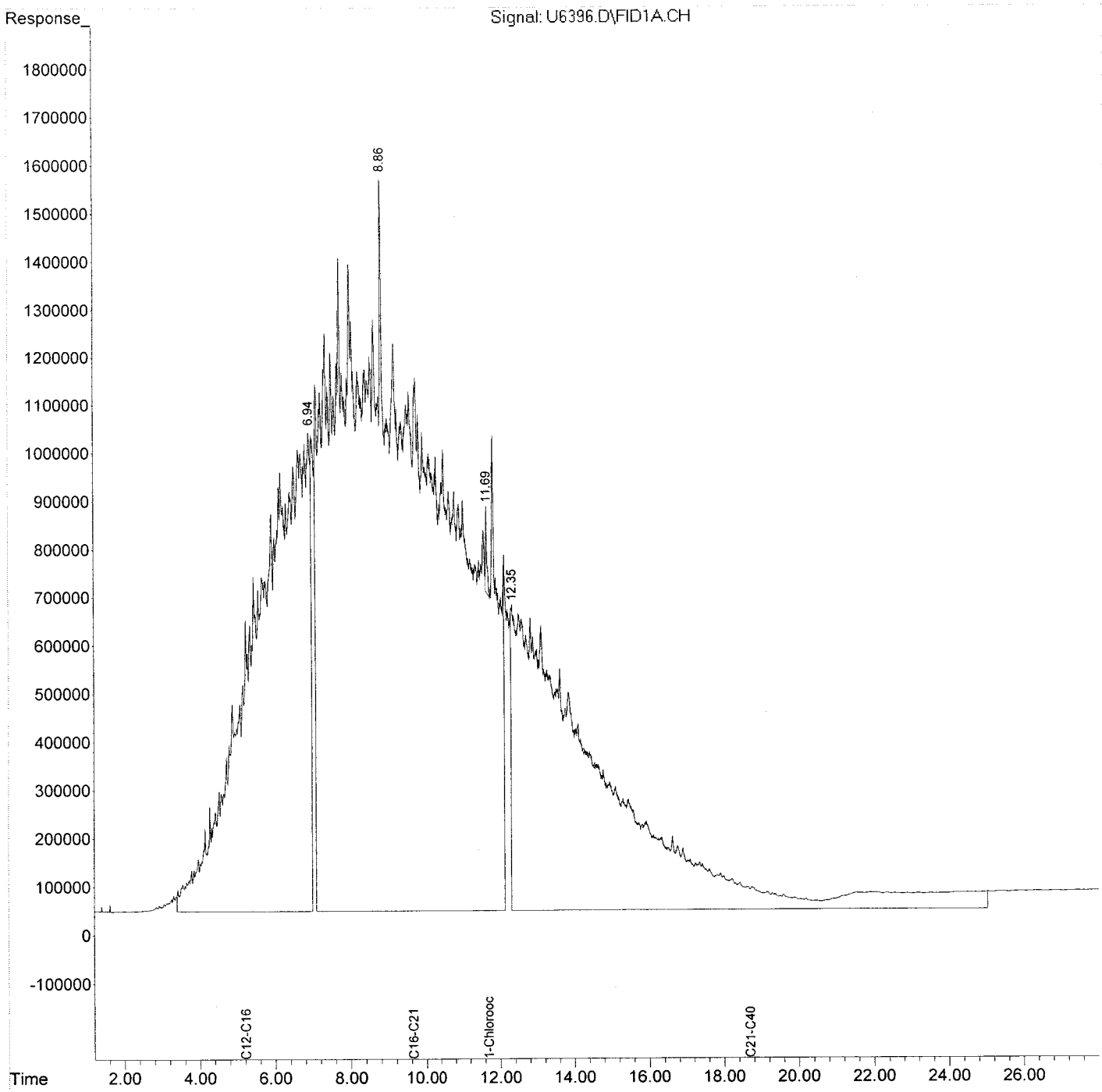
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6396.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 16 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:07:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4471.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 66 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:41:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.29	35157986	40.264	ng	
Spiked Amount 50.000		Recovery = 80.53%			
2) S 2-Bromonaphthalene	5.30	23972439	44.327	ng	m
Spiked Amount 50.000		Recovery = 88.65%			
3) S o-Terphenyl	9.55	27548481	38.009	ng	m
Spiked Amount 50.000		Recovery = 76.02%			
Target Compounds					
23) H C12-C16	4.95	259158411	316.737	ng	
24) H C16-C21	9.60	4151284126	4847.824	ng	
25) H C21-C36	17.20	1035911589	1167.735	ng	

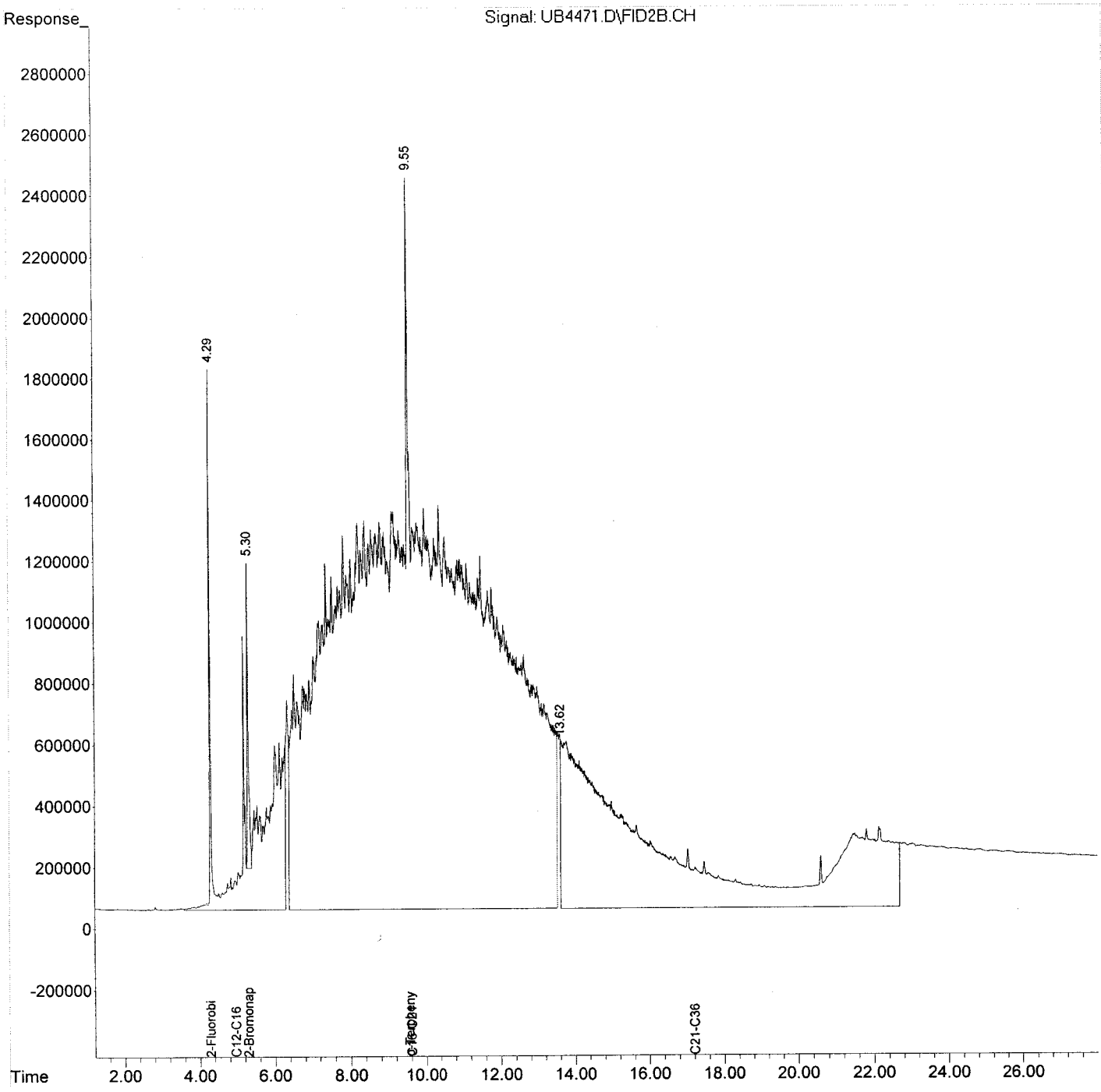
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4471.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 66 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:41:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS130923-15
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6383.D
Dilution Factor: 1

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA
Aro Date Analyzed: 09/24/2013
Data file: UB4458.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	6.00
C12-C16 Aliphatics	ND		8.00	6.00
C16-C21 Aliphatics	ND		12.0	4.00
C21-C40 Aliphatics	ND		40.0	4.00
Total Aliphatics	ND		40.0	6.00
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	4.00
Total Aromatics	ND		32.0	4.00
Total NJ-EPH	ND		40.0	6.00

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6383.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ALI,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.67	14250129	34.049 ng
Spiked Amount 50.000		Recovery =	68.10%
Target Compounds			

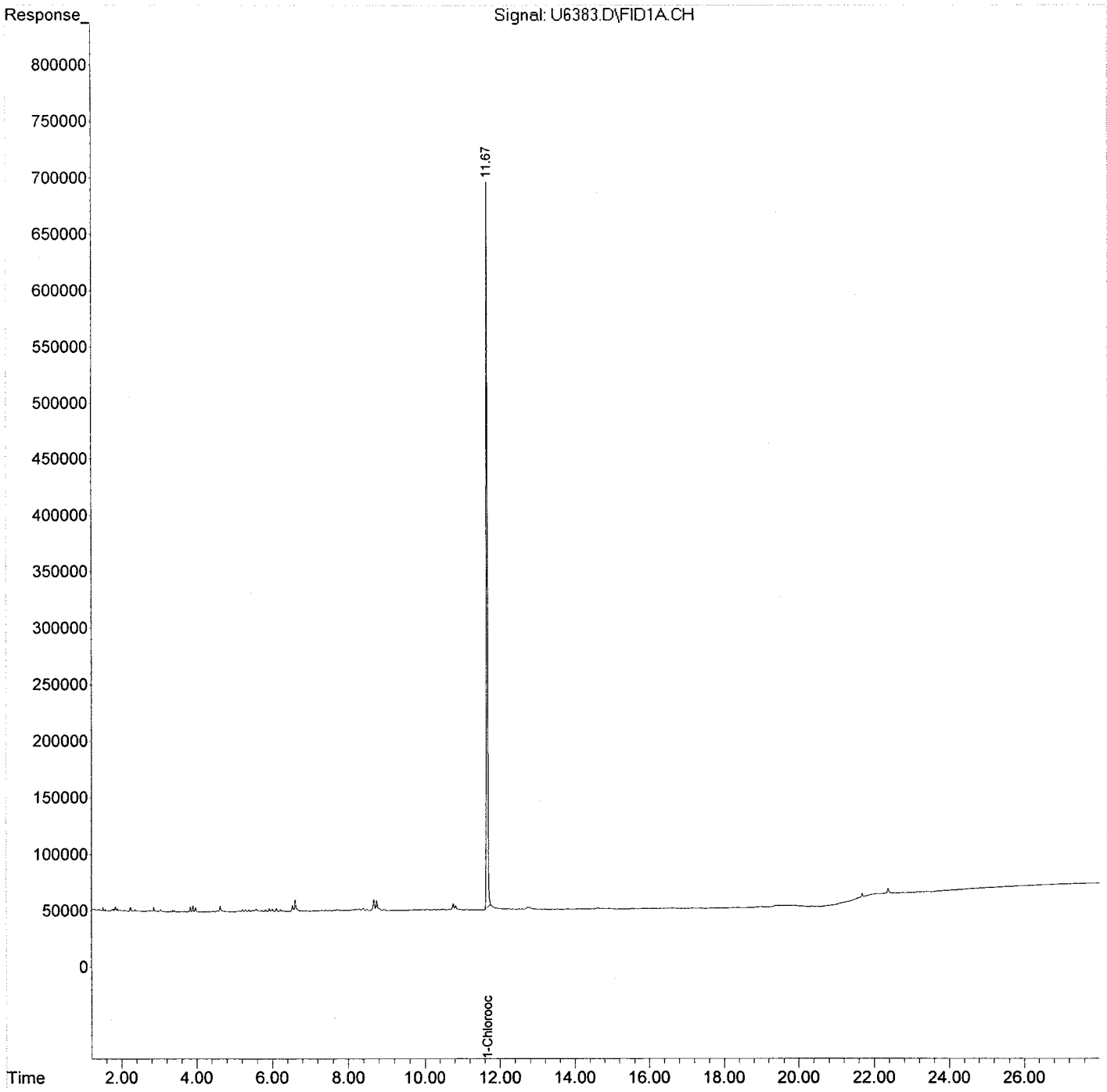
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6383.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ALI,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4458.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ARO,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.30	34871990	39.936 ng
Spiked Amount 50.000		Recovery =	79.87%
2) S 2-Bromonaphthalene	5.32	21864541	40.429 ng
Spiked Amount 50.000		Recovery =	80.86%
3) S o-Terphenyl	9.54	26406793	36.434 ng
Spiked Amount 50.000		Recovery =	72.87%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

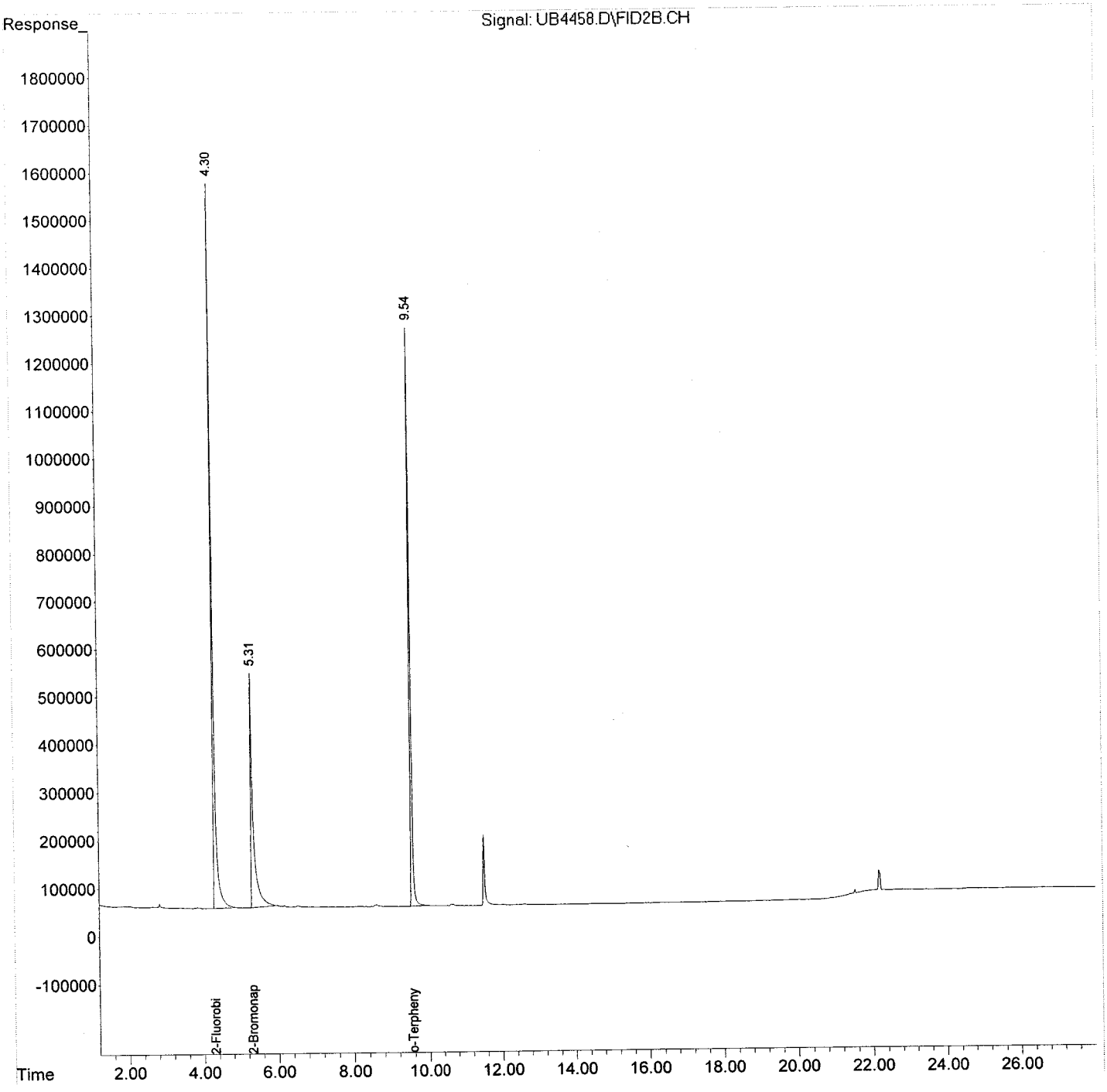
E13-09196 0450

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4458.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ARO,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 440
SDG #: E13-08874, E13-09196, E13-09267, E13-09228, E13-09242

Matrix: Soil Method: 6020 Units: ppb (ug/L)

			9/20/13 15:05		9/20/13 15:59		9/20/13 16:45		9/20/13 17:32	
	INST.	ICV & CCV	ICV		CCV		CCV		CCV	
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	53.2	106	54.2	108	52.8	106	50.4	101
Antimony	0.250	50.0	50.4	101	52.4	105	52.3	105	54.2	108
Arsenic	0.250	50.0	52.7	105	53.1	106	54.0	108	52.6	105
Barium	2.50	50.0	50.8	102	53.6	107	52.3	105	54.6	109
Beryllium	0.200	50.0	49.0	98.0	48.7	97.4	47.6	95.2	47.7	95.4
Cadmium	0.125	50.0	51.0	102	51.9	104	49.8	99.6	50.5	101
Calcium	25.0	500	526	105	542	108	539	108	522	104
Chromium	0.500	50.0	52.1	104	54.2	108	54.9	110	53.1	106
Cobalt	0.500	50.0	51.6	103	52.9	106	53.9	108	52.2	104
Copper	0.500	50.0	51.5	103	53.6	107	54.0	108	51.9	104
Iron	12.5	500	518	104	538	108	545	109	514	103
Lead	0.125	50.0	52.1	104	54.7	109	53.0	106	53.7	107
Magnesium	12.5	500	521	104	544	109	528	106	505	101
Manganese	0.250	50.0	53.1	106	54.7	109	54.7	109	52.2	104
Mercury	0.120	5.00	5.11	102	5.05	101	5.04	101		
Nickel	0.500	50.0	51.7	103	53.3	107	54.3	109	52.3	105
Potassium	12.5	500	536	107	543	109	540	108	525	105
Selenium	1.00	50.0	52.5	105	53.3	107	52.1	104	51.3	103
Silver	0.125	10.0	9.16	91.6	9.49	94.9	9.20	92.0	9.19	91.9
Sodium	25.0	500	516	103	549	110	535	107	510	102
Thallium	0.125	50.0	53.4	107	54.4	109	53.4	107	54.7	109
Vanadium	0.500	50.0	52.8	106	54.6	109	54.9	110	53.6	107
Zinc	2.00	50.0	51.6	103	52.7	105	54.1	108	52.1	104

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 440
SDG #: E13-08874, E13-09196, E13-09267, E13-09228, E13-09242

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

		9/20/13 15:09	9/20/13 16:03	9/20/13 16:49	9/20/13 17:35		
ANALYTE	INST. MDL	ICB	CCB	CCB	CCB		
Aluminum	0.005	ND	ND	ND	ND		
Antimony	0.00025	ND	ND	ND	ND		
Arsenic	0.00025	ND	ND	ND	ND		
Barium	0.0025	ND	ND	ND	ND		
Beryllium	0.0002	ND	ND	ND	ND		
Cadmium	0.000125	ND	ND	ND	ND		
Calcium	0.025	ND	ND	ND	ND		
Chromium	0.0005	ND	ND	ND	ND		
Cobalt	0.0005	ND	ND	ND	ND		
Copper	0.0005	ND	ND	ND	ND		
Iron	0.013	ND	ND	ND	ND		
Lead	0.000125	ND	ND	ND	ND		
Magnesium	0.013	ND	ND	ND	ND		
Manganese	0.00025	ND	ND	ND	ND		
Mercury	0.00012	ND	ND	ND			
Nickel	0.0005	ND	ND	ND	ND		
Potassium	0.013	ND	ND	ND	ND		
Selenium	0.001	ND	ND	ND	ND		
Silver	0.000125	ND	ND	ND	ND		
Sodium	0.025	ND	ND	ND	ND		
Thallium	0.000125	ND	ND	ND	ND		
Vanadium	0.0005	ND	ND	ND	ND		
Zinc	0.002	ND	ND	ND	ND		

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

09/20/2013 03:44 PM

Batch (Page) #: 440
Associated Lab Case for Blank 1: E13-08874, E13-09196, E13-09228, E13-09242, E13-09267

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK BLKS130919-01
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 1:
08874-001; 09196-001~005; 09228-001~007; 09242-005
09242-006; 09267-001~005

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Instrument: Agilent7500
Batch (Page) #: 440
SDG #: E13-08874, E13-09196, E13-09267, E13-09228, E13-09242

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	59700	56700	56.7	NA
Calcium	100000	-	62800	59900	59.9	NA
Iron	100000	-	61400	58400	58.4	NA
Potassium	100000	-	60700	57900	57.9	NA
Magnesium	100000	-	58900	56800	56.8	NA
Sodium	100000	-	61000	58600	58.6	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	1740	1740	87.0	NA
Titanium	2000	-	1290	1240	62.0	NA
Silver	-	20.0	-	17.1	85.5	80-120
Arsenic	-	20.0	-	16.3	81.5	80-120
Cadmium	-	20.0	-	16.3	81.5	80-120
Cobalt	-	20.0	-	16.1	80.5	80-120
Chromium	-	20.0	-	16.2	81.0	80-120
Copper	-	20.0	-	16.7	83.5	80-120
Manganese	-	20.0	-	16.8	84.0	80-120
Nickel	-	20.0	-	16.3	81.5	80-120
Zinc	-	20.0	-	16.5	82.5	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 440
SDG #: E13-08874, E13-09196, E13-09228, E13-09242, E13-09267

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	LCSS130919-01 TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	185	92.5			
Antimony	40.0	37.0	92.5			
Arsenic	40.0	37.8	94.5			
Barium	40.0	35.8	89.5			
Beryllium	40.0	34.4	86.0			
Cadmium	40.0	35.5	88.8			
Calcium	200	176	88.0			
Chromium	40.0	37.3	93.3			
Cobalt	40.0	36.7	91.8			
Copper	40.0	38.1	95.3			
Iron	200	193	96.5			
Lead	40.0	37.5	93.8			
Magnesium	200	185	92.5			
Manganese	40.0	35.4	88.5			
Mercury	0.250	0.217	86.8			
Nickel	40.0	37.8	94.5			
Potassium	200	178	89.0			
Selenium	40.0	37.1	92.8			
Silver	40.0	34.6	86.5			
Sodium	200	180	90.0			
Thallium	40.0	38.9	97.3			
Vanadium	40.0	36.4	91.0			
Zinc	40.0	37.2	93.0			

(1) Control Limits % Recovery = 85-115%

LCSS130919-01 9/20/13 15:47

08874-001; 09196-001~005; 09228-001~007; 09242-005
09242-006; 09267-001~005

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 440
SDG #: E13-08874, E13-09196, E13-09228, E13-09242, E13-09267

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	9/20/13 16:11 SSR1	9/20/13 15:51 SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	10100	9950	NC	224					75-125
Antimony	43.8	ND	97.8	44.8					75-125
Arsenic	43.9	3.52	90.1	44.8					75-125
Barium	88.9	43.9	100	44.8					75-125
Beryllium	39.7	0.345	87.8	44.8					75-125
Cadmium	39.4	0.211	87.5	44.8					75-125
Calcium	839	661	79.5	224					75-125
Chromium	51.6	11.3	90.0	44.8					75-125
Cobalt	43.4	4.26	87.4	44.8					75-125
Copper	57.2	16.0	92.0	44.8					75-125
Iron	9840	9590	112	224					75-125
Lead	83.4	37.9	102	44.8					75-125
Magnesium	2190	1980	93.8	224					75-125
Manganese	275	240	78.1	44.8					75-125
Mercury	0.342	0.092	89.3	0.280					75-125
Nickel	50.3	9.30	91.5	44.8					75-125
Potassium	789	584	91.5	224					75-125
Selenium	41.4	ND	92.4	44.8					75-125
Silver	39.3	ND	87.7	44.8					75-125
Sodium	235	31.4	90.9	224					75-125
Thallium	44.5	ND	99.3	44.8					75-125
Vanadium	58.4	19.0	87.9	44.8					75-125
Zinc	75.2	35.0	89.7	44.8					75-125

SSR = Spike Sample Result
SR = Sample Result
SA = Spike Added
%R = Percent Recovery
NC = Non-calculable % R; Spike sample concentration > 4 x Spike Concentration.

QC Sample 1: E13-08874-001
% Solids: 89.1
QC Sample 1 for following samples:
08874-001; 09196-001~005; 09228-001~007; 09242-005
09242-006; 09267-001~005

QC Sample 2: _____
% Solids: _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 440
SDG #: E13-08874, E13-09196, E13-09228, E13-09242, E13-09267

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	9/20/13 15:51 S1	9/20/13 15:55 D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	9950	9880	0.706				
Antimony	NA	ND	ND	NC				
Arsenic	20	3.52	3.47	1.43				
Barium	20	43.9	46.8	6.39				
Beryllium	20	0.345	0.377	8.86				
Cadmium	20	0.211	0.209	0.952				
Calcium	20	661	650	1.68				
Chromium	20	11.3	11.4	0.881				
Cobalt	20	4.26	4.21	1.18				
Copper	20	16.0	16.1	0.623				
Iron	20	9590	9590	0				
Lead	20	37.9	39.4	3.88				
Magnesium	20	1980	1980	0				
Manganese	20	240	243	1.24				
Mercury	20	0.092	0.092	0				
Nickel	20	9.30	9.26	0.431				
Potassium	20	584	583	0.171				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	31.4	31.5	0.318				
Thallium	NA	ND	ND	NC				
Vanadium	20	19.0	19.1	0.525				
Zinc	20	35.0	34.7	0.861				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1: E13-08874-001
% Solids: 89.1
QC Sample 1 for following samples:
08874-001; 09196-001~005; 09228-001~007; 09242-005
09242-006; 09267-001~005

QC Sample 2:
% Solids:
QC Sample 2 for following samples:

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 440
SDG #: E13-08874, E13-09196, E13-09228, E13-09242, E13-09267

Matrix: Soil Concentration/Units: ppm (mg/kg)

	SERIAL DILUTION			POST SPIKE		
ANALYTE	9/20/13 15:51 SR	9/20/13 16:07 SDR	% Difference	9/20/13 16:14 SPR	SA	% Recovery
Aluminum	9950	9960	0.100			
Antimony	ND	ND	NC	43.2	44.8	96.4
Arsenic	3.52	3.46	1.72	44.5	44.8	91.5
Barium	43.9	43.9	0	92.9	44.8	109.0
Beryllium	0.345	ND	NC	37.4	44.8	82.7
Cadmium	0.211	ND	NC	38.1	44.8	84.6
Calcium	661	667	0.904			
Chromium	11.3	10.8	4.52			
Cobalt	4.26	4.16	2.38	45.4	44.8	91.8
Copper	16.0	16.3	1.86			
Iron	9590	9650	0.624			
Lead	37.9	37.8	0.264			
Magnesium	1980	1940	2.04			
Manganese	240	232	3.39			
Nickel	9.30	9.34	0.429	50.8	44.8	92.6
Potassium	584	588	0.683			
Selenium	ND	ND	NC	40.3	44.8	90.0
Silver	ND	ND	NC	36.1	44.8	80.6
Sodium	31.4	ND	NC	993	896	107.0
Thallium	ND	ND	NC	43.1	44.8	96.2
Vanadium	19.0	18.4	3.21			
Zinc	35.0	31.7	9.90	79.1	44.8	98.4

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1: E13-08874-001
QC Sample 1 for following samples:
08874-001; 09196-001~005; 09228-001~007; 09242-005
09242-006; 09267-001~005

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG440
September 20, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.D	STD BLANK	1113149		65368		446186		2626061		2814037		1312629		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Sample Lower Limit	779204	70	45758	70	312330	70	1838243	70	1969826	70	918840	70	
	QC Lower Limit	890519	80	52294	80	356949	80	2100849	80	2251230	80	1050103	80	
	Sample & QC Upper Limit	1335779	120	78442	120	535423	120	3151273	120	3376844	120	1575155	120	
005CALS.D	STD1	1092934	98	64203	98	432703	97	2559970	97	2734470	97	1284669	98	
006CALS.D	STD2	1085128	97	65020	99	444938	100	2598440	99	2880371	102	1336740	102	
007CALS.D	STD3	1074440	97	64396	99	438903	98	2626347	100	2844487	101	1284957	98	
013CALS.D	STD4	1032394	93	66014	101	460032	103	2643517	101	2960121	105	1341658	102	
015ICSA.D	ICSA	977338	88	79077	118	603238	120	2303393	88	2767555	98	1130463	86	
016ICSB.D	ICSAB	927895	83	79682	119	571944	119	2202568	84	2565813	91	1059332	81	
018_ICV.D	ICV	1082715	97	67950	104	465396	104	2779679	106	3037608	108	1383788	105	
019_ICB.D	ICB	1093154	98	67503	103	467123	105	2732190	104	2973955	106	1362762	104	
022SMPL.D	E13-09242-005	1127548	101	73035	112	505118	113	2713037	103	2977526	106	1327513	101	
023SMPL.D	E13-09242-006	1197247	108	72334	111	509590	114	2767813	105	3015614	107	1340445	102	
024SMPL.D	E13-09099-001	1137689	102	69006	106	491044	110	2798680	107	3053968	109	1329143	101	
025SMPL.D	E13-09099-002	1122866	101	70114	107	497184	111	2769255	105	3115201	111	1359531	104	
026SMPL.D	E13-09099-003	1107327	99	70058	107	483821	108	2725614	104	3034149	108	1312992	100	
028SMPL.D	BLKS130919-01	1167655	105	67276	103	472044	106	2779900	106	2989963	106	1370042	104	
029SMPL.D	LCSS130919-01	1198644	108	67253	103	477592	107	2800853	107	3078790	109	1374962	105	
030SMPL.D	E13-08874-001	1239527	111	70165	107	512339	115	2818275	107	3142532	112	1402233	107	
031SMPL.D	E13-08874-001DUP	1237942	111	71386	109	505368	113	2803140	107	3061355	109	1386896	106	
0326CCV.D	CCV	1225867	110	68975	106	477786	107	2793120	106	2998344	107	1380230	105	
0336CCB.D	CCB	1236427	111	68793	105	480528	108	2800737	107	3052087	108	1389487	106	
034SMPL.D	E13-08874-001SD	1281371	115	70301	108	482267	108	2747400	105	3104173	110	1408905	107	
035SMPL.D	E13-08874-001MS	1232024	111	70909	108	499124	112	2722243	104	3029359	108	1361775	104	
036SMPL.D	E13-08874-001PS	1262244	113	72898	112	502313	113	2723080	104	3015573	107	1352002	103	
037SMPL.D	E13-09196-001	1192452	107	75431	115	529083	119	2614443	100	2937393	104	1313698	100	
038SMPL.D	E13-09196-002	1177545	106	71362	109	495240	111	2566645	98	2935879	104	1299856	99	
039SMPL.D	E13-09196-003	1244222	112	71121	109	506256	113	2677278	102	3003661	107	1318443	100	
040SMPL.D	E13-09196-004	1221208	110	72471	111	507549	114	2691488	102	3041976	108	1325321	101	
041SMPL.D	E13-09196-005	1263715	114	76700	117	**556367**	**125**	2744352	105	3056503	109	1348821	103	A
042SMPL.D	E13-09267-001	1237635	111	70801	108	**547814**	**123**	2834363	108	3037046	108	1357424	103	A
043SMPL.D	E13-09267-002	1278958	115	75755	116	**540443**	**121**	2828631	108	3020847	107	1358528	103	A
0446CCV.D	CCV	1233683	111	69271	106	505901	113	2889633	110	3123629	111	1387497	106	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

E13-09196 04462

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG440
September 20, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.D	STD BLANK	1113149		65368		446186		2626061		2814037		1312629		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Sample Lower Limit	779204	70	45758	70	312330	70	1838243	70	1969826	70	918840	70	
	QC Lower Limit	890519	80	52294	80	356949	80	2100849	80	2251230	80	1050103	80	
	Sample & QC Upper Limit	1335779	120	78442	120	535423	120	3151273	120	3376844	120	1575155	120	
0456CCB.D	CCB	1204829	108	71371	109	502391	113	2875783	110	3032282	108	1360025	104	
046SMPL.D	E13-09267-003	1301727	117	**80239**	**123**	**567744**	**127**	2752610	105	2954608	105	1369650	104	A
047SMPL.D	E13-09267-004	1274966	115	74311	114	**542800**	**122**	2871605	109	3187807	113	1457701	111	A
048SMPL.D	E13-09267-005	1285437	115	75846	116	**536967**	**120**	2770004	105	3140577	112	1442615	110	A
049SMPL.D	E13-09228-001	1246212	112	71868	110	507806	114	2834519	108	3106839	110	1445035	110	
050SMPL.D	E13-09228-002	1275673	115	70771	108	503806	113	2796525	106	3085726	110	1405953	107	
051SMPL.D	E13-09228-003	1263226	113	72317	111	509258	114	2821619	107	3125459	111	1402629	107	
052SMPL.D	E13-09228-004	1294522	116	71272	109	516063	116	2790477	106	2997463	107	1369296	104	
053SMPL.D	E13-09228-005	1274154	114	72900	112	526744	118	2850393	109	3012559	107	1366256	104	
054SMPL.D	E13-09228-006	1244087	112	73026	112	523426	117	2856623	109	2949576	105	1349654	103	
055SMPL.D	E13-09228-007	1245033	112	72277	111	527315	118	2859712	109	3027716	108	1349459	103	
0566CCV.D	CCV	1242026	112	69596	106	508350	114	2895803	110	2993106	106	1358753	104	
0576CCB.D	CCB	1240579	111	69666	107	516420	116	2873711	109	3023819	107	1376462	105	

E13-09196 0463

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG440
September 20, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.D	STD BLANK	1273170		66379		486349		2706052		2840076		1370704		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Sample Lower Limit	891219	70	46465	70	340444	70	1894236	70	1988053	70	959493	70	
	QC Lower Limit	1018536	80	53103	80	389079	80	2164842	80	2272061	80	1096563	80	
	Sample & QC Upper Limit	1527804	120	79655	120	583619	120	3247262	120	3408091	120	1644845	120	
005CALS.D	STD1	1285121	101	67005	101	476411	98	2661296	98	2848962	100	1366265	100	
006CALS.D	STD2	1287296	101	69100	104	477476	98	2682286	99	2893930	102	1372134	100	
007CALS.D	STD3	1303866	102	68740	104	481294	99	2688988	99	2910441	102	1373584	100	
008CALS.D	STD4	1263482	99	68074	103	488994	101	2670093	99	2933869	103	1369150	100	
022SMPL.D	E13-09196-005	1217099	96	75676	114	526331	108	2618467	97	2902361	102	1337061	98	
023SMPL.D	E13-09267-001	1281719	101	73449	111	508174	104	2707675	100	2940844	104	1409676	103	
024SMPL.D	E13-09267-002	1271415	100	72830	110	512594	105	2688910	99	2930128	103	1396365	102	
025SMPL.D	E13-09267-003	1309162	103	73466	111	531770	109	2715537	100	2914798	103	1389507	101	
026SMPL.D	E13-09267-004	1261817	99	73201	110	511164	105	2688934	99	2980721	105	1407854	103	
027SMPL.D	E13-09267-005	1279402	100	72775	110	522840	108	2710792	100	3111801	110	1460365	107	

Note: Internal Standards failed, no affected data was reported from this analysis.

E13-09196 04464

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

SAMPLE TRACKING

IAL Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO

Company: EWMA-P
Address:
Telephone #:
Fax #:
Project Manager: Anthony Kreftmann
EMAIL Address:
Sampled by: Brad Chyput?

COMPLETED BY IAL:
___ Field Sampling ___ Equipment Rental

Project Name: 208322
Project Location (State): NJ
Bottle Order #:

REPORTING INFO

REPORT TO: EWMA-P
Address:
Attn:
FAX #
INVOICE TO: EWMA-P
Address:
Attn:
PO #
Quote #

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved. Turnaround Time starts the following day if samples rec'd at lab > 5PM

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE
NJ EPH DRO (5 day TAT) — NJ EPH Fractionated (5 day TAT)
NJ EPH - C40 (5 day TAT)
DRO-8015 (3-5 day TAT) — QAM025

Verbal/Fax: Std 2 wk unless otherwise specified
24 hr** 48 hr** 72 hr** 96 hr** 1 wk**
Other** (specify): Std
Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **	Report Format	EDDs
24 hr - 100%....	NJ Results Only	NJ SRP format
48 hr - 75%....	NY Cat A	NYSDEC
72 hr - 50%....	NJ Reduced (circled)	lab approved custom EDD
96 hr - 35%....	NJ Regulatory	NO EDD/CD REQ'D
5 day - 25%....	NY Cat B	
6-9 day 10%	15% Surcharge applies	
	Other (describe)	

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix: DW - Drinking Water AQ - Aqueous WW - Waste Water OI - Oil LIQ - Liquid (Specify) S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	BNs	Metals	PCBs	Pest/Herb	EPH	HCL	HNO3	MeOH	NaOH	H2SO4	Other	None	Encore
C-1 Warehouse 1		9/17/13	8:30	Sol	1	1	✓	✓	✓	✓	✓								
C-2 Land Dock 1		↓	10:20	↓	1	2	✓	✓	✓	✓	✓							1	
C-3 Bld 2		↓	11:50	↓	1	3	✓	✓	✓	✓	✓							1	
C-4 Imp. Metals		↓	1:30	↓	1	4	✓	✓	✓	✓	✓							1	
C-5 Sphinx Elec		↓	3:15	↓	1	5	✓	✓	✓	✓	✓							1	

Known Hazard: Yes or No
Describe:

Conc. Expected: Low Med High

MDL Req: NJ GWQS / NJ IGW / NJ SRS / NY TOGS / NY CP51 / NY Part 375 Restricted / NY Part 375 Unrestricted / Other (specify):

Carrier (check one): ___ IAL Courier ___ Client Courier ___ FedEx/UPS

Relinquished by: Signature/Company	Date	Time	Received by: Signature/Company	Date	Time
Relinquished by: [signature]	9/18/13	14:45	Received by: [signature] IAL	9/18/13	14:45
Relinquished by: [signature] IAL	9/18/13	1625	Received by: [signature]	9/18/13	1625
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 09196

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

E13-09196: 50 DIVISION AVE - 208322

To: Anthony Kaufman
EWMA - HQ
Fax: 1(973) 560-0400
EMail: anthony.kaufman@ewma.com

Report To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Anthony Kaufman

Bill To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Anthony Kaufman

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced		Sep 18, 2013 @ 16:25	NA	Oct 02, 2013	Oct 09, 2013 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

**** QC Requirement (must meet):** NJ IGW

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
09196-001	C-1 WAREHOUSE 1	NA	09/17/13@08:30	Solid	mg/Kg (ppm)	
09196-002	C-2 LOAD DOCK 1	NA	09/17/13@10:20	Solid	mg/Kg (ppm)	
09196-003	C-3 BLD 2	NA	09/17/13@11:50	Solid	mg/Kg (ppm)	
09196-004	C-4 IMP. METALS	NA	09/17/13@13:30	Solid	mg/Kg (ppm)	
09196-005	C-5 SPHINX ELEC.	NA	09/17/13@15:15	Solid	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013
002	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	NJ-EPH-Fractionated	Analyze	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013

273 Franklin Road
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ACCREDITED IN ACCORDANCE WITH nelac
IAL is a NELAP New Jersey Accredited Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Pennsylvania (68-00773) and West Virginia TO-15 and Method 18

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PROJECT INFORMATION

E13-09196: 50 DIVISION AVE - 208322

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
003	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/1/2013
	NJ-EPH-Fractionated	Analyze	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013
004	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-Fractionated	Analyze	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013
005	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-Fractionated	Analyze	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013

Project Notes:

NOTE 1 taken by Ellen on 09/19/2013 09:53
PROJECT NAME BASED ON PROJECT # IS 50 DIVISION AVE

REV 1 taken by melissa on 09/23/2013 03:32
DUE TO HIGH EPH-C40 CONCENTRATIONS, SAMPLES 002 THRU 005 NEED TO BE ANALYZED FOR EPH-FRACTIONATED.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 13** **09196** CLIENT: EWMA-P

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA

✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [X] DATE 9/18/13

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☐

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [MT] DATE 9/19/13

Laboratory Custody Chronicle

IAL Case No. E13-09196

Client EWMA - HQ

Project 50 DIVISION AVE - 208322

Received On 9/18/2013@16:25

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL BN + 15	09196-001	Solid	9/19/13	Kou-Liang	9/20/13	Eleanor
"	-002	"	9/19/13	Kou-Liang	9/23/13	Eleanor
"	-003	"	9/19/13	Kou-Liang	9/20/13	Eleanor
"	-004	"	9/19/13	Kou-Liang	9/23/13	Eleanor
"	-005	"	9/19/13	Kou-Liang	9/23/13	Eleanor

Department: GC			Prep. Date	Analyst	Analysis Date	Analyst
Herbicides	-001	Solid	9/26/13	Archimede	9/30/13	Justyna
"	-002	"	9/26/13	Archimede	9/30/13	Justyna
"	-003	"	9/26/13	Archimede	9/30/13	Justyna
"	-004	"	9/26/13	Archimede	9/30/13	Justyna
"	-005	"	9/26/13	Archimede	9/30/13	Justyna
NJ-EPH-C40	-001	Solid	9/19/13	Archimede	9/24/13	William
NJ-EPH-Fractionated	-002	Solid	9/23/13	Archimede	9/24/13	Latha
"	-003	"	9/23/13	Archimede	9/24/13	Latha
"	-004	"	9/23/13	Archimede	9/24/13	Latha
"	-005	"	9/23/13	Archimede	9/24/13	Latha
TCL PCB	-001	Solid	9/23/13	Archimede	9/24/13	Justyna
"	-002	"	9/23/13	Archimede	9/24/13	Justyna
"	-003	"	9/23/13	Archimede	9/24/13	Justyna
"	-004	"	9/23/13	Archimede	9/24/13	Justyna
"	-005	"	9/23/13	Archimede	9/24/13	Justyna
TCL Pesticides	-001	Solid	9/23/13	Archimede	9/25/13	Iwona
"	-002	"	9/23/13	Archimede	9/25/13	Iwona
"	-003	"	9/23/13	Archimede	9/25/13	Iwona
"	-004	"	9/23/13	Archimede	9/25/13	Iwona
"	-005	"	9/23/13	Archimede	9/25/13	Iwona

Department: Metals			Prep. Date	Analyst	Analysis Date	Analyst
TAL Metals	-001	Solid	9/19/13	Lisa	9/20/13	Danielle
"	-002	"	9/19/13	Lisa	9/20/13	Danielle
"	-003	"	9/19/13	Lisa	9/20/13	Danielle
"	-004	"	9/19/13	Lisa	9/20/13	Danielle
"	-005	"	9/19/13	Lisa	9/20/13	Danielle

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: **50 DIVISION AVE. - 208322**
IAL Case Number: **E13-09197**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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Phone: 973 361 4252
Fax: 973 989 5288

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Sample Summary

IAL Case No.

E13-09197

Client EWMA - HQ

Project 50 DIVISION AVE. - 208322

Received On 9/18/2013@16:25

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09197-001	AOC-5-1	9/9.5	9/17/2013@14:50	Soil	4
09197-002	AOC-5-2	7.5/8	9/17/2013@15:00	Soil	4
09197-003	AOC-7-1	8/8.5	9/17/2013@14:00	Soil	1
09197-004	AOC-7-2	11/11.5	9/17/2013@14:32	Soil	4
09197-005	AOC-7-3	9.5/10	9/17/2013@15:47	Soil	4
09197-006	AOC-7-4	9.5/10	9/17/2013@16:03	Soil	1
09197-007	AOC-8	12.5/13	9/17/2013@13:30	Soil	4
09197-008	AOC-12-1	1.5/2	9/17/2013@11:25	Soil	1
09197-009	AOC-12-2	3.5/4	9/17/2013@11:05	Soil	4
09197-010	AOC-6	18.5/19	9/17/2013@17:00	Soil	4

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

This report was finalized on October 04, 2013

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received ten (10) soil sample(s) from Environmental Waste Management Associates, LLC. (IAL SDG # E13-09197, Project: 50 DIVISION AVE. - 208322) on September 18, 2013 for the analysis of:

(7) TCL VO + 15
(5) TCL BN + 15
(3) TCL PCB
(5) TCL Pesticides
(5) Herbicides
(5) NJ-EPH-C40
(3) NJ-EPH-Fractionated
(5) TAL Metals
(2) Metal - Lead

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

10/3/13
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09197

Volatiles By 8260B

Batch ID: J130920	**Matrix: MEOH**

QC

- Calibration Curve met QC criteria.
- Internal Standards Recovery met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.

E13-09197

- All samples were analyzed within holding time.
- #004 run straight.

Signature 9/23/2013 Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09197

Volatiles By 8260B

Batch ID: F130920-02	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Internal Standards Recovery met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.

E13-09197

- All samples were analyzed within holding time.
- 09197-001, 002, 005, 007, 009, 010 were run straight.

Signature 9/23/2013 Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG# : E13-09197

Semivolatiles by 8270C

Batch ID : 130919-03 **Matrix:** Soil

QC

Calibration curve met criteria.
Internal standard recovery met criteria.
Surrogate recovery met criteria.
Method Blank met criteria.
Laboratory control sample recovery met criteria.
Matrix Spike/Matrix Spike Duplicate recoveries met criteria.

Sample was extracted out of holding time.
Analysis holding time met requirement for each sample.
Sample 005 was run at a 2x dilution due to high target compounds.

A. Jenne 10/3/2013

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09197

PCB By 8082A

Batch ID: 130923-11	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery did not meet QC criteria. MS/MSD did not meet criteria due to non-homogenous matrix of sample spiked and high concentration of Aroclor-1260 in the MS Sample.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 004, 005, 009
- The following samples were cleaned up using method 3665A: 004, 005, 009

E13-09197

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Samples 004 and 005 were diluted 5x for potential matrix interference (due to color of samples). Sample 009 was run straight.

10/3/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09197

Pesticide By 8081A

Batch ID: 130923-11	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery did not meet QC criteria. #004: DCB1 = 1637%
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 004, 005, 007, 009, 010
- #005 failed NJ IGW QC criteria due to high dilution and high %moisture

E13-09197

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- #004, ~~#004~~, #009 needed 5x dilution due to potential matrix interference due to sample color
  #005

10/2/13-AS

Signature

9/26/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09197

Herbicide By 8151A

Batch ID: 130926-05	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.

E13-09197

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- No dilution was performed for samples 004,005,007,009,010.

Signature

9/30/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09197

NJ-EPH-C40 By Method 10.08 Rev 3

Batch ID: 130919-06	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria. n-Nonane was recovered between the 25-140% recovery range.
- RPD between LCS/LCSD met QC criteria.
- MS Percent Recovery met QC criteria. n-Nonane was recovered between the 25-140% recovery range.
- RPD between the Sample/Duplicate met QC criteria.

E13-09197

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Samples were run without dilution.

9/24/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09197

NJ-EPH By Method 10.08 Rev 3

Batch ID: 130923-15	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria.
- RPD between LCS/LCSD met QC criteria.
- MS Percent Recovery did not meet QC criteria. MS failed criteria for ARO fraction,due to high concentration of target analyte.
- RPD between the Sample/Duplicate met QC criteria.

E13-09197

- All samples were extracted within holding time.
- All samples were fractionated within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Following samples (ALI fraction) were run with dilutions:
  -004 (5X), -005 (5X),-006 (10X).
  All samples for (ARO fraction) were run straight.

9/25/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09197

METALS By 6020/7471A

Batch ID: S130922-01 (PG442)	**Matrix:** Soil

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E13-09197
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.
- 09197-007 was analyzed at a 2x dilution for Al,As,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn. A dilution was done to reduce matrix interference with Ge[1] due to high levels of Al in the sample. 09197-010 was analyzed at a 2x dilution for Al,As,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn. A dilution was done to reduce matrix interference with Ge[1] due to high levels of Al in the sample. The following samples were analyzed as a straight run and no further dilutions were required: 001, 002, 004, 005, 009

9/24/2013

Signature Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09197

Lab ID:	09197-001			09197-002			09197-003			09197-004		
Client ID:	AOC-5-1			AOC-5-2			AOC-7-1			AOC-7-2		
Depth:	9/9.5			7.5/8			8/8.5			11/11.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Acetone	ND		0.000759	0.017		0.000754	~		~	ND		0.035
Carbon disulfide	ND		0.000428	0.00114	J	0.000425	~		~	ND		0.029
TOTAL VO's:	ND			0.018	J		~		~	ND		
TOTAL TIC's:	ND			ND			~		~	6.02		
TOTAL VO's & TIC's:	ND			0.018	J		~		~	6.02		
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene	~		~	~		~	~		~	0.050	J	0.047
2-Methylnaphthalene	~		~	~		~	~		~	0.103		0.065
Fluorene	~		~	~		~	~		~	0.308		0.047
Fluoranthene	~		~	~		~	~		~	0.711		0.047
Pyrene	~		~	~		~	~		~	4.11		0.058
TOTAL BN'S:	~		~	~		~	~		~	5.28	J	
TOTAL TIC's:	~		~	~		~	~		~	38.4		
TOTAL BN'S & TIC's:	~		~	~		~	~		~	43.7	J	
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	~		~	~		~	~		~	ND		0.00394
Aroclor-1221	~		~	~		~	~		~	ND		0.00394
Aroclor-1232	~		~	~		~	~		~	ND		0.00394
Aroclor-1242	~		~	~		~	~		~	ND		0.00394
Aroclor-1248	~		~	~		~	~		~	ND		0.00394
Aroclor-1254	~		~	~		~	~		~	ND		0.00394
Aroclor-1260	~		~	~		~	~		~	ND		0.00394
Aroclor-1262	~		~	~		~	~		~	ND		0.00394
Aroclor-1268	~		~	~		~	~		~	ND		0.00394
PCBs	~		~	~		~	~		~	ND		0.00394
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	~		~	~		~	~		~	ND		0.000985
beta-BHC	~		~	~		~	~		~	ND		0.000985
gamma-BHC (Lindane)	~		~	~		~	~		~	ND		0.000985
delta-BHC	~		~	~		~	~		~	ND		0.000985
Heptachlor	~		~	~		~	~		~	ND		0.000985
Aldrin	~		~	~		~	~		~	ND		0.000985
Heptachlor epoxide	~		~	~		~	~		~	ND		0.000985
Endosulfan I	~		~	~		~	~		~	ND		0.000985
4,4'-DDE	~		~	~		~	~		~	ND		0.000985
Dieldrin	~		~	~		~	~		~	ND		0.000985
Endrin	~		~	~		~	~		~	ND		0.000985
Endosulfan II	~		~	~		~	~		~	ND		0.000985

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09197

Lab ID:	09197-001			09197-002			09197-003			09197-004		
Client ID:	AOC-5-1			AOC-5-2			AOC-7-1			AOC-7-2		
Depth:	9/9.5			7.5/8			8/8.5			11/11.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
4,4'-DDD	~		~	~		~	~		~	ND		0.000985
Endrin aldehyde	~		~	~		~	~		~	ND		0.000985
Endosulfan sulfate	~		~	~		~	~		~	ND		0.000985
4,4'-DDT	~		~	~		~	~		~	ND		0.000985
Endrin ketone	~		~	~		~	~		~	ND		0.000985
Methoxychlor	~		~	~		~	~		~	ND		0.000985
alpha-Chlordane	~		~	~		~	~		~	ND		0.000985
gamma-Chlordane	~		~	~		~	~		~	ND		0.000985
Toxaphene	~		~	~		~	~		~	ND		0.012
Endosulfan (I and II)	~		~	~		~	~		~	ND		0.000985
Chlordane (alpha and gamma)	~		~	~		~	~		~	ND		0.000985
Herbicides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dalapon	~		~	~		~	~		~	ND		0.00768
Dicamba	~		~	~		~	~		~	ND		0.00768
2,4-D	~		~	~		~	~		~	ND		0.00768
2,4,5-TP (Silvex)	~		~	~		~	~		~	ND		0.00768
2,4,5-T	~		~	~		~	~		~	ND		0.00768
2,4-DB	~		~	~		~	~		~	ND		0.00768
Dinoseb	~		~	~		~	~		~	ND		0.00768
NJ-EPH-C40 (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C40	~		~	~		~	33.0	J	10.2	~		~
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	~		~	~		~	~		~	ND		34.8
C12-C16 Aliphatics	~		~	~		~	~		~	244	D	34.8
C16-C21 Aliphatics	~		~	~		~	~		~	629	D	23.2
C21-C40 Aliphatics	~		~	~		~	~		~	2510	D	23.2
Total Aliphatics	~		~	~		~	~		~	3380		34.8
C10-C12 Aromatics	~		~	~		~	~		~	ND		4.64
C12-C16 Aromatics	~		~	~		~	~		~	38.0		4.64
C16-C21 Aromatics	~		~	~		~	~		~	474		4.64
C21-C36 Aromatics	~		~	~		~	~		~	1450		4.64
Total Aromatics	~		~	~		~	~		~	1960		4.64
Total NJ-EPH	~		~	~		~	~		~	5350	D	34.8

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
D = The compound was reported from the Diluted analysis
Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09197

Lab ID:	09197-001			09197-002			09197-003			09197-004		
Client ID:	AOC-5-1			AOC-5-2			AOC-7-1			AOC-7-2		
Depth:	9/9.5			7.5/8			8/8.5			11/11.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	~		~	~		~	~		~	23100		6.52
Antimony	~		~	~		~	~		~	ND		0.326
Arsenic	~		~	~		~	~		~	3.11		0.326
Barium	~		~	~		~	~		~	148		3.26
Beryllium	~		~	~		~	~		~	1.28		0.261
Cadmium	~		~	~		~	~		~	ND		0.163
Calcium	~		~	~		~	~		~	6530		32.6
Chromium	~		~	~		~	~		~	37.7		0.652
Cobalt	~		~	~		~	~		~	16.3		0.652
Copper	~		~	~		~	~		~	12.9		0.652
Iron	~		~	~		~	~		~	27300		16.3
Lead	17.4		0.159	15.9		0.165	~		~	21.7		0.163
Magnesium	~		~	~		~	~		~	10300		16.3
Manganese	~		~	~		~	~		~	337		0.326
Mercury	~		~	~		~	~		~	0.020		0.00718
Nickel	~		~	~		~	~		~	62.9		0.652
Potassium	~		~	~		~	~		~	3100		16.3
Selenium	~		~	~		~	~		~	ND		1.30
Silver	~		~	~		~	~		~	ND		0.163
Sodium	~		~	~		~	~		~	5440		32.6
Thallium	~		~	~		~	~		~	ND		0.163
Vanadium	~		~	~		~	~		~	29.4		0.652
Zinc	~		~	~		~	~		~	56.9		2.61

Lab ID:	09197-005			09197-006			09197-007			09197-008		
Client ID:	AOC-7-3			AOC-7-4			AOC-8			AOC-12-1		
Depth:	9.5/10			9.5/10			12.5/13			1.5/2		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TOTAL VO's:	ND			~		~	ND			~		~
TOTAL TIC's:	ND			~		~	ND			~		~
TOTAL VO's & TIC's:	ND			~		~	ND			~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09197

Lab ID:	09197-005			09197-006			09197-007			09197-008		
Client ID:	AOC-7-3			AOC-7-4			AOC-8			AOC-12-1		
Depth:	9.5/10			9.5/10			12.5/13			1.5/2		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene	0.182	D	0.053	~		~	ND		0.024	~		~
2-Methylnaphthalene	0.449	D	0.073	~		~	ND		0.033	~		~
Acenaphthene	0.257	D	0.071	~		~	ND		0.032	~		~
Dibenzofuran	0.074	DJ	0.053	~		~	ND		0.024	~		~
Fluorene	0.274	D	0.053	~		~	ND		0.024	~		~
Fluoranthene	0.275	D	0.053	~		~	ND		0.024	~		~
Pyrene	0.876	D	0.065	~		~	ND		0.030	~		~
TOTAL BN'S:	2.39	DJ		~		~	ND			~		~
TOTAL TIC's:	11.5			~		~	ND			~		~
TOTAL BN'S & TIC's:	13.9	DJ		~		~	ND			~		~
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	ND		0.00443	~		~	~		~	~		~
Aroclor-1221	ND		0.00443	~		~	~		~	~		~
Aroclor-1232	ND		0.00443	~		~	~		~	~		~
Aroclor-1242	ND		0.00443	~		~	~		~	~		~
Aroclor-1248	ND		0.00443	~		~	~		~	~		~
Aroclor-1254	ND		0.00443	~		~	~		~	~		~
Aroclor-1260	ND		0.00443	~		~	~		~	~		~
Aroclor-1262	ND		0.00443	~		~	~		~	~		~
Aroclor-1268	ND		0.00443	~		~	~		~	~		~
PCBs	ND		0.00443	~		~	~		~	~		~
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	ND		0.00111	~		~	ND		0.000195	~		~
beta-BHC	ND		0.00111	~		~	ND		0.000195	~		~
gamma-BHC (Lindane)	ND		0.00111	~		~	ND		0.000195	~		~
delta-BHC	ND		0.00111	~		~	ND		0.000195	~		~
Heptachlor	ND		0.00111	~		~	ND		0.000195	~		~
Aldrin	ND		0.00111	~		~	ND		0.000195	~		~
Heptachlor epoxide	ND		0.00111	~		~	ND		0.000195	~		~
Endosulfan I	ND		0.00111	~		~	ND		0.000195	~		~
4,4'-DDE	ND		0.00111	~		~	ND		0.000195	~		~
Dieldrin	ND		0.00111	~		~	ND		0.000195	~		~
Endrin	ND		0.00111	~		~	ND		0.000195	~		~
Endosulfan II	ND		0.00111	~		~	ND		0.000195	~		~
4,4'-DDD	ND		0.00111	~		~	ND		0.000195	~		~
Endrin aldehyde	ND		0.00111	~		~	ND		0.000195	~		~
Endosulfan sulfate	ND		0.00111	~		~	ND		0.000195	~		~
4,4'-DDT	ND		0.00111	~		~	ND		0.000195	~		~
Endrin ketone	ND		0.00111	~		~	ND		0.000195	~		~
Methoxychlor	ND		0.00111	~		~	ND		0.000195	~		~
alpha-Chlordane	ND		0.00111	~		~	ND		0.000195	~		~
gamma-Chlordane	ND		0.00111	~		~	ND		0.000195	~		~
Toxaphene	ND		0.013	~		~	ND		0.00234	~		~
Endosulfan (I and II)	ND		0.00111	~		~	ND		0.000195	~		~
Chlordane (alpha and gamma)	ND		0.00111	~		~	ND		0.000195	~		~

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ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
D = The compound was reported from the Diluted analysis

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09197

Lab ID:	09197-005			09197-006			09197-007			09197-008		
Client ID:	AOC-7-3			AOC-7-4			AOC-8			AOC-12-1		
Depth:	9.5/10			9.5/10			12.5/13			1.5/2		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	9/17/13			9/17/13			9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Herbicides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dalapon	ND		0.00876	~		~	ND		0.00792	~		~
Dicamba	ND		0.00876	~		~	ND		0.00792	~		~
2,4-D	ND		0.00876	~		~	ND		0.00792	~		~
2,4,5-TP (Silvex)	ND		0.00876	~		~	ND		0.00792	~		~
2,4,5-T	ND		0.00876	~		~	ND		0.00792	~		~
2,4-DB	ND		0.00876	~		~	ND		0.00792	~		~
Dinoseb	ND		0.00876	~		~	ND		0.00792	~		~
NJ-EPH-C40 (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C40	~		~	~		~	23.7	J	10.5	52.1		10.5
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	42.4	DJ	40.3	92.2	DJ	80.6	~		~	~		~
C12-C16 Aliphatics	351	D	40.3	773	D	80.6	~		~	~		~
C16-C21 Aliphatics	681	D	26.9	1510	D	53.7	~		~	~		~
C21-C40 Aliphatics	2380	D	26.9	5060	D	53.7	~		~	~		~
Total Aliphatics	3450		40.3	7440		80.6	~		~	~		~
C10-C12 Aromatics	ND		5.38	7.47	J	5.37	~		~	~		~
C12-C16 Aromatics	49.9		5.38	110		5.37	~		~	~		~
C16-C21 Aromatics	575		5.38	1190		5.37	~		~	~		~
C21-C36 Aromatics	1930		5.38	3120		5.37	~		~	~		~
Total Aromatics	2550		5.38	4430	J	5.37	~		~	~		~
Total NJ-EPH	6010	DJ	40.3	11900	DJ	80.6	~		~	~		~
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	24200		7.35	~		~	28300		12.9	~		~
Antimony	ND		0.367	~		~	ND		0.323	~		~
Arsenic	7.08		0.367	~		~	2.13		0.647	~		~
Barium	136		3.67	~		~	203		3.23	~		~
Beryllium	1.29		0.294	~		~	1.72		0.259	~		~
Cadmium	ND		0.184	~		~	ND		0.162	~		~
Calcium	2330		36.7	~		~	1960		64.7	~		~
Chromium	63.0		0.735	~		~	38.4		1.29	~		~
Cobalt	20.8		0.735	~		~	19.8		1.29	~		~
Copper	20.1		0.735	~		~	9.02		1.29	~		~
Iron	34500		18.4	~		~	34600		32.3	~		~
Lead	32.5		0.184	~		~	21.2		0.162	~		~
Magnesium	16700		18.4	~		~	5320		32.3	~		~
Manganese	488		0.367	~		~	906		0.647	~		~
Mercury	0.040		0.00796	~		~	0.348		0.00735	~		~
Nickel	114		0.735	~		~	41.2		1.29	~		~
Potassium	3520		18.4	~		~	3530		32.3	~		~
Selenium	ND		1.47	~		~	ND		2.59	~		~
Silver	ND		0.184	~		~	ND		0.162	~		~
Sodium	1240		36.7	~		~	681		64.7	~		~
Thallium	ND		0.184	~		~	0.221	J	0.162	~		~
Vanadium	40.2		0.735	~		~	34.2		1.29	~		~
Zinc	83.3		2.94	~		~	53.9		5.17	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
D = The compound was reported from the Diluted analysis

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09197

	Lab ID:	09197-009			09197-010		
	Client ID:	AOC-12-2			AOC-6		
	Depth:	3.5/4			18.5/19		
	Matrix:	Soil			Soil		
	Sampled Date	9/17/13			9/17/13		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TOTAL VO's:		ND			ND		
TOTAL TIC's:		0.00754			ND		
TOTAL VO's & TIC's:		0.00754			ND		
Semivolatiles - BN (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Phenanthrene		0.113		0.051	ND		0.026
Di-n-butyl phthalate		0.217		0.069	ND		0.036
Fluoranthene		0.157		0.046	ND		0.024
Pyrene		0.215		0.057	ND		0.030
Benzo[a]anthracene		0.149		0.074	ND		0.038
Chrysene		0.173		0.052	ND		0.027
Bis(2-ethylhexyl) phthalate		0.079		0.046	ND		0.024
TOTAL BN'S:		1.10			ND		
TOTAL TIC's:		ND			ND		
TOTAL BN'S & TIC's:		1.10			ND		
PCB's (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016		ND		0.000768	~		~
Aroclor-1221		ND		0.000768	~		~
Aroclor-1232		ND		0.000768	~		~
Aroclor-1242		ND		0.000768	~		~
Aroclor-1248		ND		0.000768	~		~
Aroclor-1254		ND		0.000768	~		~
Aroclor-1260		0.194		0.000768	~		~
Aroclor-1262		ND		0.000768	~		~
Aroclor-1268		ND		0.000768	~		~
PCBs		0.194			~		~

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09197

Lab ID:	09197-009			09197-010		
Client ID:	AOC-12-2			AOC-6		
Depth:	3.5/4			18.5/19		
Matrix:	Soil			Soil		
Sampled Date	9/17/13			9/17/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	ND		0.000962	ND		0.000199
beta-BHC	ND		0.000962	ND		0.000199
gamma-BHC (Lindane)	ND		0.000962	ND		0.000199
delta-BHC	ND		0.000962	ND		0.000199
Heptachlor	ND		0.000962	ND		0.000199
Aldrin	ND		0.000962	ND		0.000199
Heptachlor epoxide	ND		0.000962	ND		0.000199
Endosulfan I	ND		0.000962	ND		0.000199
4,4'-DDE	ND		0.000962	ND		0.000199
Dieldrin	ND		0.000962	ND		0.000199
Endrin	ND		0.000962	ND		0.000199
Endosulfan II	ND		0.000962	ND		0.000199
4,4'-DDD	ND		0.000962	ND		0.000199
Endrin aldehyde	ND		0.000962	ND		0.000199
Endosulfan sulfate	ND		0.000962	ND		0.000199
4,4'-DDT	ND		0.000962	ND		0.000199
Endrin ketone	ND		0.000962	ND		0.000199
Methoxychlor	ND		0.000962	ND		0.000199
alpha-Chlordane	ND		0.000962	ND		0.000199
gamma-Chlordane	ND		0.000962	ND		0.000199
Toxaphene	ND		0.012	ND		0.00239
Endosulfan (I and II)	ND		0.000962	ND		0.000199
Chlordane (alpha and gamma)	ND		0.000962	ND		0.000199
Herbicides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dalapon	ND		0.00776	ND		0.0077
Dicamba	ND		0.00776	ND		0.0077
2,4-D	ND		0.00776	ND		0.0077
2,4,5-TP (Silvex)	ND		0.00776	ND		0.0077
2,4,5-T	ND		0.00776	ND		0.0077
2,4-DB	ND		0.00776	ND		0.0077
Dinoseb	ND		0.00776	ND		0.0077
NJ-EPH-C40 (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C40	150		10.4	ND		10.5

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09197

	Lab ID:	09197-009			09197-010		
	Client ID:	AOC-12-2			AOC-6		
	Depth:	3.5/4			18.5/19		
	Matrix:	Soil			Soil		
	Sampled Date	9/17/13			9/17/13		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL
Metals (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum		21800		6.44	31800		13.6
Antimony		ND		0.322	ND		0.339
Arsenic		2.21		0.322	1.79		0.678
Barium		175		3.22	203		3.39
Beryllium		1.85		0.258	2.05		0.271
Cadmium		ND		0.161	ND		0.169
Calcium		4210		32.2	2990		67.8
Chromium		29.3		0.644	37.5		1.36
Cobalt		19.4		0.644	16.3		1.36
Copper		18.0		0.644	12.2		1.36
Iron		26800		16.1	36500		33.9
Lead		26.3		0.161	17.0		0.169
Magnesium		6740		16.1	7550		33.9
Manganese		648		0.322	433		0.678
Mercury		0.676		0.00725	ND		0.00747
Nickel		38.6		0.644	57.7		1.36
Potassium		3680		16.1	4160		33.9
Selenium		ND		1.29	ND		2.71
Silver		ND		0.161	ND		0.169
Sodium		240		32.2	459		67.8
Thallium		0.197	J	0.161	0.210	J	0.169
Vanadium		29.3		0.644	31.6		1.36
Zinc		93.6		2.58	63.0		5.42

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
D = The compound was reported from the Diluted analysis

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-001
Client ID: AOC-5-1/9-9.5
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7755.D

GC/MS Column: DB-624
Sample wt/vol: 4.3g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.0

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00138	0.000773
Chloromethane	ND		0.00138	0.0004
Vinyl chloride	ND		0.00138	0.000538
Bromomethane	ND		0.00138	0.000662
Chloroethane	ND		0.00138	0.000511
Trichlorofluoromethane	ND		0.00138	0.000414
1,1-Dichloroethene	ND		0.00138	0.000566
Acetone	ND		0.0069	0.000759
Carbon disulfide	ND		0.00138	0.000428
Methylene chloride	ND		0.00276	0.00273
trans-1,2-Dichloroethene	ND		0.00138	0.000469
Methyl tert-butyl ether (MTBE)	ND		0.00138	0.000345
1,1-Dichloroethane	ND		0.00138	0.000414
cis-1,2-Dichloroethene	ND		0.00138	0.000386
2-Butanone (MEK)	ND		0.00276	0.0004
Bromochloromethane	ND		0.00138	0.000345
Chloroform	ND		0.00138	0.000373
1,1,1-Trichloroethane	ND		0.00138	0.000359
Carbon tetrachloride	ND		0.00138	0.000345
1,2-Dichloroethane (EDC)	ND		0.00138	0.000304
Benzene	ND		0.00138	0.000373
Trichloroethene	ND		0.00138	0.000469
1,2-Dichloropropane	ND		0.00138	0.000359
1,4-Dioxane	ND		0.276	0.016
Bromodichloromethane	ND		0.00138	0.00029
cis-1,3-Dichloropropene	ND		0.00138	0.00029
4-Methyl-2-pentanone (MIBK)	ND		0.00138	0.00029

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-001
Client ID: AOC-5-1/9-9.5
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7755.D

GC/MS Column: DB-624
Sample wt/vol: 4.3g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.0

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00138	0.000345
trans-1,3-Dichloropropene	ND		0.00138	0.000304
1,1,2-Trichloroethane	ND		0.00138	0.00029
Tetrachloroethene	ND		0.00138	0.000345
2-Hexanone	ND		0.00138	0.000373
Dibromochloromethane	ND		0.00138	0.00029
1,2-Dibromoethane (EDB)	ND		0.00138	0.000276
Chlorobenzene	ND		0.00138	0.000386
Ethylbenzene	ND		0.00138	0.000386
Total Xylenes	ND		0.00276	0.0011
Styrene	ND		0.00138	0.000304
Bromoform	ND		0.00138	0.000331
Isopropylbenzene	ND		0.00138	0.0004
1,1,2,2-Tetrachloroethane	ND		0.00138	0.000317
1,3-Dichlorobenzene	ND		0.00138	0.000331
1,4-Dichlorobenzene	ND		0.00138	0.000276
1,2-Dichlorobenzene	ND		0.00138	0.000386
1,2-Dibromo-3-chloropropane	ND		0.00138	0.000276
1,2,4-Trichlorobenzene	ND		0.00138	0.000359
1,2,3-Trichlorobenzene	ND		0.00138	0.000442
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00138	0.000511
Methyl acetate	ND		0.00138	0.000304
Cyclohexane	ND		0.0069	0.000538
Methylcyclohexane	ND		0.0069	0.000497
1,3-Dichloropropene (cis- and trans-)	ND		0.00138	0.000304

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09197-001
Client ID: AOC-5-1/9-9.5
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Date File: F7755.D

GC/MS Column: DB-624
Sample wt/vol: 4.3g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-002
Client ID: AOC-5-2/7.5-8
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7756.D

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.3

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00137	0.000767
Chloromethane	ND		0.00137	0.000397
Vinyl chloride	ND		0.00137	0.000534
Bromomethane	ND		0.00137	0.000658
Chloroethane	ND		0.00137	0.000507
Trichlorofluoromethane	ND		0.00137	0.000411
1,1-Dichloroethene	ND		0.00137	0.000562
Acetone	0.017		0.00685	0.000754
Carbon disulfide	0.00114	J	0.00137	0.000425
Methylene chloride	ND		0.00274	0.00271
trans-1,2-Dichloroethene	ND		0.00137	0.000466
Methyl tert-butyl ether (MTBE)	ND		0.00137	0.000343
1,1-Dichloroethane	ND		0.00137	0.000411
cis-1,2-Dichloroethene	ND		0.00137	0.000384
2-Butanone (MEK)	ND		0.00274	0.000397
Bromochloromethane	ND		0.00137	0.000343
Chloroform	ND		0.00137	0.00037
1,1,1-Trichloroethane	ND		0.00137	0.000356
Carbon tetrachloride	ND		0.00137	0.000343
1,2-Dichloroethane (EDC)	ND		0.00137	0.000301
Benzene	ND		0.00137	0.00037
Trichloroethene	ND		0.00137	0.000466
1,2-Dichloropropane	ND		0.00137	0.000356
1,4-Dioxane	ND		0.274	0.016
Bromodichloromethane	ND		0.00137	0.000288
cis-1,3-Dichloropropene	ND		0.00137	0.000288
4-Methyl-2-pentanone (MIBK)	ND		0.00137	0.000288

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-002
Client ID: AOC-5-2/7.5-8
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7756.D

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.3

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00137	0.000343
trans-1,3-Dichloropropene	ND		0.00137	0.000301
1,1,2-Trichloroethane	ND		0.00137	0.000288
Tetrachloroethene	ND		0.00137	0.000343
2-Hexanone	ND		0.00137	0.00037
Dibromochloromethane	ND		0.00137	0.000288
1,2-Dibromoethane (EDB)	ND		0.00137	0.000274
Chlorobenzene	ND		0.00137	0.000384
Ethylbenzene	ND		0.00137	0.000384
Total Xylenes	ND		0.00274	0.0011
Styrene	ND		0.00137	0.000301
Bromoform	ND		0.00137	0.000329
Isopropylbenzene	ND		0.00137	0.000397
1,1,2,2-Tetrachloroethane	ND		0.00137	0.000315
1,3-Dichlorobenzene	ND		0.00137	0.000329
1,4-Dichlorobenzene	ND		0.00137	0.000274
1,2-Dichlorobenzene	ND		0.00137	0.000384
1,2-Dibromo-3-chloropropane	ND		0.00137	0.000274
1,2,4-Trichlorobenzene	ND		0.00137	0.000356
1,2,3-Trichlorobenzene	ND		0.00137	0.000438
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00137	0.000507
Methyl acetate	ND		0.00137	0.000301
Cyclohexane	ND		0.00685	0.000534
Methylcyclohexane	ND		0.00685	0.000493
1,3-Dichloropropene (cis- and trans-)	ND		0.00137	0.000301
Total Target Compounds (52):	0.018	J		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09197-002
Client ID: AOC-5-2/7.5-8
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Date File: F7756.D

GC/MS Column: DB-624
Sample wt/vol: 4.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.3

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-004
Client ID: AOC-7-2/11-11.
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: J9374.D

GC/MS Column: DB-624
Sample wt/vol: 0.096g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.8

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.063	0.040
Chloromethane	ND		0.063	0.025
Vinyl chloride	ND		0.063	0.034
Bromomethane	ND		0.063	0.027
Chloroethane	ND		0.063	0.029
Trichlorofluoromethane	ND		0.063	0.036
1,1-Dichloroethene	ND		0.063	0.025
Acetone	ND		0.127	0.035
Carbon disulfide	ND		0.063	0.029
Methylene chloride	ND		0.127	0.125
trans-1,2-Dichloroethene	ND		0.063	0.024
Methyl tert-butyl ether (MTBE)	ND		0.063	0.046
1,1-Dichloroethane	ND		0.063	0.018
cis-1,2-Dichloroethene	ND		0.063	0.017
2-Butanone (MEK)	ND		0.063	0.036
Bromochloromethane	ND		0.063	0.018
Chloroform	ND		0.063	0.023
1,1,1-Trichloroethane	ND		0.063	0.021
Carbon tetrachloride	ND		0.063	0.023
1,2-Dichloroethane (EDC)	ND		0.063	0.023
Benzene	ND		0.063	0.016
Trichloroethene	ND		0.063	0.014
1,2-Dichloropropane	ND		0.063	0.015
1,4-Dioxane	ND		12.7	1.20
Bromodichloromethane	ND		0.063	0.025
cis-1,3-Dichloropropene	ND		0.063	0.016
4-Methyl-2-pentanone (MIBK)	ND		0.063	0.019

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-004
Client ID: AOC-7-2/11-11.
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: J9374.D

GC/MS Column: DB-624
Sample wt/vol: 0.096g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.8

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.063	0.017
trans-1,3-Dichloropropene	ND		0.063	0.016
1,1,2-Trichloroethane	ND		0.063	0.027
Tetrachloroethene	ND		0.063	0.015
2-Hexanone	ND		0.063	0.016
Dibromochloromethane	ND		0.063	0.015
1,2-Dibromoethane (EDB)	ND		0.063	0.020
Chlorobenzene	ND		0.063	0.017
Ethylbenzene	ND		0.063	0.023
Total Xylenes	ND		0.127	0.042
Styrene	ND		0.063	0.025
Bromoform	ND		0.063	0.015
Isopropylbenzene	ND		0.063	0.020
1,1,2,2-Tetrachloroethane	ND		0.063	0.016
1,3-Dichlorobenzene	ND		0.063	0.017
1,4-Dichlorobenzene	ND		0.063	0.019
1,2-Dichlorobenzene	ND		0.063	0.016
1,2-Dibromo-3-chloropropane	ND		0.127	0.039
1,2,4-Trichlorobenzene	ND		0.063	0.025
1,2,3-Trichlorobenzene	ND		0.063	0.028
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.063	0.032
Methyl acetate	ND		0.063	0.038
Cyclohexane	ND		0.063	0.024
Methylcyclohexane	ND		0.063	0.023
1,3-Dichloropropene (cis- and trans-)	ND		0.063	0.016

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09197-004
Client ID: AOC-7-2/11-11.
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Date File: J9374.D

GC/MS Column: DB-624
Sample wt/vol: 0.096g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	0.475	12.22
	Unknown VOA	0.412	12.87
	Unknown PAH	0.488	13.54
	Unknown Hydrocarbon	0.558	13.94
	Unknown Hydrocarbon	0.748	14.33
	Unknown Hydrocarbon	0.767	14.57
	Unknown Hydrocarbon	0.513	15.02
	Unknown Hydrocarbon	0.969	15.20
	Unknown Hydrocarbon	0.348	15.73
	Unknown Hydrocarbon	0.418	15.88
	Unknown Aromatic	0.323	16.63

Total TICs = 6.02

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-005
Client ID: AOC-7-3/9.5-10
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7757.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.6

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00137	0.000767
Chloromethane	ND		0.00137	0.000397
Vinyl chloride	ND		0.00137	0.000534
Bromomethane	ND		0.00137	0.000658
Chloroethane	ND		0.00137	0.000507
Trichlorofluoromethane	ND		0.00137	0.000411
1,1-Dichloroethene	ND		0.00137	0.000562
Acetone	ND		0.00685	0.000754
Carbon disulfide	ND		0.00137	0.000425
Methylene chloride	ND		0.00274	0.00271
trans-1,2-Dichloroethene	ND		0.00137	0.000466
Methyl tert-butyl ether (MTBE)	ND		0.00137	0.000343
1,1-Dichloroethane	ND		0.00137	0.000411
cis-1,2-Dichloroethene	ND		0.00137	0.000384
2-Butanone (MEK)	ND		0.00274	0.000397
Bromochloromethane	ND		0.00137	0.000343
Chloroform	ND		0.00137	0.00037
1,1,1-Trichloroethane	ND		0.00137	0.000356
Carbon tetrachloride	ND		0.00137	0.000343
1,2-Dichloroethane (EDC)	ND		0.00137	0.000301
Benzene	ND		0.00137	0.00037
Trichloroethene	ND		0.00137	0.000466
1,2-Dichloropropane	ND		0.00137	0.000356
1,4-Dioxane	ND		0.274	0.016
Bromodichloromethane	ND		0.00137	0.000288
cis-1,3-Dichloropropene	ND		0.00137	0.000288
4-Methyl-2-pentanone (MIBK)	ND		0.00137	0.000288

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-005
Client ID: AOC-7-3/9.5-10
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7757.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.6

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00137	0.000343
trans-1,3-Dichloropropene	ND		0.00137	0.000301
1,1,2-Trichloroethane	ND		0.00137	0.000288
Tetrachloroethene	ND		0.00137	0.000343
2-Hexanone	ND		0.00137	0.00037
Dibromochloromethane	ND		0.00137	0.000288
1,2-Dibromoethane (EDB)	ND		0.00137	0.000274
Chlorobenzene	ND		0.00137	0.000384
Ethylbenzene	ND		0.00137	0.000384
Total Xylenes	ND		0.00274	0.0011
Styrene	ND		0.00137	0.000301
Bromoform	ND		0.00137	0.000329
Isopropylbenzene	ND		0.00137	0.000397
1,1,2,2-Tetrachloroethane	ND		0.00137	0.000315
1,3-Dichlorobenzene	ND		0.00137	0.000329
1,4-Dichlorobenzene	ND		0.00137	0.000274
1,2-Dichlorobenzene	ND		0.00137	0.000384
1,2-Dibromo-3-chloropropane	ND		0.00137	0.000274
1,2,4-Trichlorobenzene	ND		0.00137	0.000356
1,2,3-Trichlorobenzene	ND		0.00137	0.000438
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00137	0.000507
Methyl acetate	ND		0.00137	0.000301
Cyclohexane	ND		0.00685	0.000534
Methylcyclohexane	ND		0.00685	0.000493
1,3-Dichloropropene (cis- and trans-)	ND		0.00137	0.000301

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09197-005
Client ID: AOC-7-3/9.5-10
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Date File: F7757.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.6

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-007
Client ID: AOC-8/12.5-13
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7758.D

GC/MS Column: DB-624
Sample wt/vol: 4.6g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00131	0.000734
Chloromethane	ND		0.00131	0.00038
Vinyl chloride	ND		0.00131	0.000511
Bromomethane	ND		0.00131	0.000629
Chloroethane	ND		0.00131	0.000485
Trichlorofluoromethane	ND		0.00131	0.000393
1,1-Dichloroethene	ND		0.00131	0.000537
Acetone	ND		0.00655	0.000721
Carbon disulfide	ND		0.00131	0.000406
Methylene chloride	ND		0.00262	0.00259
trans-1,2-Dichloroethene	ND		0.00131	0.000445
Methyl tert-butyl ether (MTBE)	ND		0.00131	0.000328
1,1-Dichloroethane	ND		0.00131	0.000393
cis-1,2-Dichloroethene	ND		0.00131	0.000367
2-Butanone (MEK)	ND		0.00262	0.00038
Bromochloromethane	ND		0.00131	0.000328
Chloroform	ND		0.00131	0.000354
1,1,1-Trichloroethane	ND		0.00131	0.000341
Carbon tetrachloride	ND		0.00131	0.000328
1,2-Dichloroethane (EDC)	ND		0.00131	0.000288
Benzene	ND		0.00131	0.000354
Trichloroethene	ND		0.00131	0.000445
1,2-Dichloropropane	ND		0.00131	0.000341
1,4-Dioxane	ND		0.262	0.015
Bromodichloromethane	ND		0.00131	0.000275
cis-1,3-Dichloropropene	ND		0.00131	0.000275
4-Methyl-2-pentanone (MIBK)	ND		0.00131	0.000275

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-007
Client ID: AOC-8/12.5-13
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7758.D

GC/MS Column: DB-624
Sample wt/vol: 4.6g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00131	0.000328
trans-1,3-Dichloropropene	ND		0.00131	0.000288
1,1,2-Trichloroethane	ND		0.00131	0.000275
Tetrachloroethene	ND		0.00131	0.000328
2-Hexanone	ND		0.00131	0.000354
Dibromochloromethane	ND		0.00131	0.000275
1,2-Dibromoethane (EDB)	ND		0.00131	0.000262
Chlorobenzene	ND		0.00131	0.000367
Ethylbenzene	ND		0.00131	0.000367
Total Xylenes	ND		0.00262	0.001
Styrene	ND		0.00131	0.000288
Bromoform	ND		0.00131	0.000314
Isopropylbenzene	ND		0.00131	0.00038
1,1,2,2-Tetrachloroethane	ND		0.00131	0.000301
1,3-Dichlorobenzene	ND		0.00131	0.000314
1,4-Dichlorobenzene	ND		0.00131	0.000262
1,2-Dichlorobenzene	ND		0.00131	0.000367
1,2-Dibromo-3-chloropropane	ND		0.00131	0.000262
1,2,4-Trichlorobenzene	ND		0.00131	0.000341
1,2,3-Trichlorobenzene	ND		0.00131	0.000419
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00131	0.000485
Methyl acetate	ND		0.00131	0.000288
Cyclohexane	ND		0.00655	0.000511
Methylcyclohexane	ND		0.00655	0.000472
1,3-Dichloropropene (cis- and trans-)	ND		0.00131	0.000288

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09197-007
Client ID: AOC-8/12.5-13
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Date File: F7758.D

GC/MS Column: DB-624
Sample wt/vol: 4.6g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-009
Client ID: AOC-12-2/3.5-4
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7759.D

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00145	0.000812
Chloromethane	ND		0.00145	0.000421
Vinyl chloride	ND		0.00145	0.000566
Bromomethane	ND		0.00145	0.000696
Chloroethane	ND		0.00145	0.000537
Trichlorofluoromethane	ND		0.00145	0.000435
1,1-Dichloroethene	ND		0.00145	0.000595
Acetone	ND		0.00725	0.000798
Carbon disulfide	ND		0.00145	0.00045
Methylene chloride	ND		0.0029	0.00287
trans-1,2-Dichloroethene	ND		0.00145	0.000493
Methyl tert-butyl ether (MTBE)	ND		0.00145	0.000363
1,1-Dichloroethane	ND		0.00145	0.000435
cis-1,2-Dichloroethene	ND		0.00145	0.000406
2-Butanone (MEK)	ND		0.0029	0.000421
Bromochloromethane	ND		0.00145	0.000363
Chloroform	ND		0.00145	0.000392
1,1,1-Trichloroethane	ND		0.00145	0.000377
Carbon tetrachloride	ND		0.00145	0.000363
1,2-Dichloroethane (EDC)	ND		0.00145	0.000319
Benzene	ND		0.00145	0.000392
Trichloroethene	ND		0.00145	0.000493
1,2-Dichloropropane	ND		0.00145	0.000377
1,4-Dioxane	ND		0.290	0.016
Bromodichloromethane	ND		0.00145	0.000305
cis-1,3-Dichloropropene	ND		0.00145	0.000305
4-Methyl-2-pentanone (MIBK)	ND		0.00145	0.000305

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-009
Client ID: AOC-12-2/3.5-4
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7759.D

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00145	0.000363
trans-1,3-Dichloropropene	ND		0.00145	0.000319
1,1,2-Trichloroethane	ND		0.00145	0.000305
Tetrachloroethene	ND		0.00145	0.000363
2-Hexanone	ND		0.00145	0.000392
Dibromochloromethane	ND		0.00145	0.000305
1,2-Dibromoethane (EDB)	ND		0.00145	0.00029
Chlorobenzene	ND		0.00145	0.000406
Ethylbenzene	ND		0.00145	0.000406
Total Xylenes	ND		0.0029	0.0012
Styrene	ND		0.00145	0.000319
Bromoform	ND		0.00145	0.000348
Isopropylbenzene	ND		0.00145	0.000421
1,1,2,2-Tetrachloroethane	ND		0.00145	0.000334
1,3-Dichlorobenzene	ND		0.00145	0.000348
1,4-Dichlorobenzene	ND		0.00145	0.00029
1,2-Dichlorobenzene	ND		0.00145	0.000406
1,2-Dibromo-3-chloropropane	ND		0.00145	0.00029
1,2,4-Trichlorobenzene	ND		0.00145	0.000377
1,2,3-Trichlorobenzene	ND		0.00145	0.000464
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00145	0.000537
Methyl acetate	ND		0.00145	0.000319
Cyclohexane	ND		0.00725	0.000566
Methylcyclohexane	ND		0.00725	0.000522
1,3-Dichloropropene (cis- and trans-)	ND		0.00145	0.000319

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09197-009
Client ID: AOC-12-2/3.5-4
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Date File: F7759.D

GC/MS Column: DB-624
Sample wt/vol: 4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	0.00754	5.43

Total TICs = 0.00754

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-010
Client ID: AOC-6/18.5-19
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7760.D

GC/MS Column: DB-624
Sample wt/vol: 4.2g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00145	0.000812
Chloromethane	ND		0.00145	0.000421
Vinyl chloride	ND		0.00145	0.000566
Bromomethane	ND		0.00145	0.000696
Chloroethane	ND		0.00145	0.000537
Trichlorofluoromethane	ND		0.00145	0.000435
1,1-Dichloroethene	ND		0.00145	0.000595
Acetone	ND		0.00725	0.000798
Carbon disulfide	ND		0.00145	0.00045
Methylene chloride	ND		0.0029	0.00287
trans-1,2-Dichloroethene	ND		0.00145	0.000493
Methyl tert-butyl ether (MTBE)	ND		0.00145	0.000363
1,1-Dichloroethane	ND		0.00145	0.000435
cis-1,2-Dichloroethene	ND		0.00145	0.000406
2-Butanone (MEK)	ND		0.0029	0.000421
Bromochloromethane	ND		0.00145	0.000363
Chloroform	ND		0.00145	0.000392
1,1,1-Trichloroethane	ND		0.00145	0.000377
Carbon tetrachloride	ND		0.00145	0.000363
1,2-Dichloroethane (EDC)	ND		0.00145	0.000319
Benzene	ND		0.00145	0.000392
Trichloroethene	ND		0.00145	0.000493
1,2-Dichloropropane	ND		0.00145	0.000377
1,4-Dioxane	ND		0.290	0.016
Bromodichloromethane	ND		0.00145	0.000305
cis-1,3-Dichloropropene	ND		0.00145	0.000305
4-Methyl-2-pentanone (MIBK)	ND		0.00145	0.000305

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09197-010
Client ID: AOC-6/18.5-19
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Data file: F7760.D

GC/MS Column: DB-624
Sample wt/vol: 4.2g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00145	0.000363
trans-1,3-Dichloropropene	ND		0.00145	0.000319
1,1,2-Trichloroethane	ND		0.00145	0.000305
Tetrachloroethene	ND		0.00145	0.000363
2-Hexanone	ND		0.00145	0.000392
Dibromochloromethane	ND		0.00145	0.000305
1,2-Dibromoethane (EDB)	ND		0.00145	0.00029
Chlorobenzene	ND		0.00145	0.000406
Ethylbenzene	ND		0.00145	0.000406
Total Xylenes	ND		0.0029	0.0012
Styrene	ND		0.00145	0.000319
Bromoform	ND		0.00145	0.000348
Isopropylbenzene	ND		0.00145	0.000421
1,1,2,2-Tetrachloroethane	ND		0.00145	0.000334
1,3-Dichlorobenzene	ND		0.00145	0.000348
1,4-Dichlorobenzene	ND		0.00145	0.00029
1,2-Dichlorobenzene	ND		0.00145	0.000406
1,2-Dibromo-3-chloropropane	ND		0.00145	0.00029
1,2,4-Trichlorobenzene	ND		0.00145	0.000377
1,2,3-Trichlorobenzene	ND		0.00145	0.000464
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00145	0.000537
Methyl acetate	ND		0.00145	0.000319
Cyclohexane	ND		0.00725	0.000566
Methylcyclohexane	ND		0.00725	0.000522
1,3-Dichloropropene (cis- and trans-)	ND		0.00145	0.000319

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09197-010
Client ID: AOC-6/18.5-19
Date Received: 09/18/2013
Date Analyzed: 09/21/2013
Date File: F7760.D

GC/MS Column: DB-624
Sample wt/vol: 4.2g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-004
Client ID: AOC-7-2/
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0143.D

GC/MS Column: DB-5
Sample wt/vol: 15.44g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.8

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.079	0.047
Bis(2-chloroethyl) ether	ND		0.079	0.055
Bis(2-chloroisopropyl) ether	ND		0.079	0.047
N-Nitrosodi-n-propylamine	ND		0.079	0.052
Acetophenone	ND		0.079	0.047
Hexachloroethane	ND		0.079	0.047
Nitrobenzene	ND		0.079	0.077
Isophorone	ND		0.079	0.051
Bis(2-chloroethoxy) methane	ND		0.079	0.066
Naphthalene	0.050	J	0.079	0.047
4-Chloroaniline	ND		0.079	0.074
Hexachlorobutadiene	ND		0.079	0.047
Caprolactam	ND		0.079	0.047
2-Methylnaphthalene	0.103		0.079	0.065
Hexachlorocyclopentadiene	ND		0.079	0.053
1,1'-Biphenyl	ND		0.079	0.047
2-Chloronaphthalene	ND		0.079	0.074
2-Nitroaniline	ND		0.079	0.047
Dimethyl phthalate	ND		0.079	0.047

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-004
Client ID: AOC-7-2/
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0143.D

GC/MS Column: DB-5
Sample wt/vol: 15.44g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.8

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.079	0.047
Acenaphthylene	ND		0.079	0.055
3-Nitroaniline	ND		0.079	0.065
Acenaphthene	ND		0.079	0.063
2,4-Dinitrotoluene	ND		0.079	0.051
Dibenzofuran	ND		0.079	0.047
Diethyl phthalate	ND		0.079	0.058
Fluorene	0.308		0.079	0.047
4-Chlorophenyl phenyl ether	ND		0.079	0.047
4-Nitroaniline	ND		0.079	0.065
1,2,4,5-Tetrachlorobenzene	ND		0.079	0.047
N-Nitrosodiphenylamine	ND		0.079	0.047
4-Bromophenyl phenyl ether	ND		0.079	0.047
Hexachlorobenzene	ND		0.079	0.063
Atrazine	ND		0.079	0.055
Phenanthrene	ND		0.079	0.052
Anthracene	ND		0.079	0.079
Carbazole	ND		0.079	0.047
Di-n-butyl phthalate	ND		0.079	0.071
Fluoranthene	0.711		0.079	0.047
Pyrene	4.11		0.079	0.058
Butyl benzyl phthalate	ND		0.079	0.050
3,3'-Dichlorobenzidine	ND		0.079	0.055
Benzo[a]anthracene	ND		0.079	0.076
Chrysene	ND		0.079	0.054
Bis(2-ethylhexyl) phthalate	ND		0.079	0.047
Di-n-octyl phthalate	ND		0.079	0.070
Benzo[b]fluoranthene	ND		0.079	0.048
Benzo[k]fluoranthene	ND		0.079	0.074
Benzo[a]pyrene	ND		0.079	0.047
Indeno[1,2,3-cd]pyrene	ND		0.079	0.052
Dibenz[a,h]anthracene	ND		0.079	0.058
Benzo[g,h,i]perylene	ND		0.079	0.071
Dinitrotoluene (2,4- and 2,6-)	ND		0.079	0.051
Total Target Compounds (53):	5.28	J		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09197-004
Client ID: AOC-7-2/
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Date File: C0143.D

GC/MS Column: DB-5
Sample wt/vol: 15.44g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	1.54	3.10
	Unknown SV	0.827	3.67
	Unknown PAH	0.819	3.70
	Unknown PAH	2.26	3.95
	Unknown Hydrocarbon	4.74	4.20
	Unknown PAH	1.95	4.34
	Unknown PAH	2.69	4.37
	Unknown Hydrocarbon	3.55	4.44
	Unknown PAH	3.37	4.62
	Unknown SV	1.85	4.74
	Unknown PAH	5.08	4.90
	Unknown SV	1.97	4.97
	Unknown PAH	3.27	5.08
	Unknown PAH	2.87	5.15
	Unknown PAH	1.58	5.82

Total TICs = 38.4

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-005
Client ID: AOC-7-3/
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0144.D

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 25.6

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.088	0.053
Bis(2-chloroethyl) ether	ND		0.088	0.062
Bis(2-chloroisopropyl) ether	ND		0.088	0.053
N-Nitrosodi-n-propylamine	ND		0.088	0.058
Acetophenone	ND		0.088	0.053
Hexachloroethane	ND		0.088	0.053
Nitrobenzene	ND		0.088	0.086
Isophorone	ND		0.088	0.057
Bis(2-chloroethoxy) methane	ND		0.088	0.074
Naphthalene	0.182	D	0.088	0.053
4-Chloroaniline	ND		0.088	0.083
Hexachlorobutadiene	ND		0.088	0.053
Caprolactam	ND		0.088	0.053
2-Methylnaphthalene	0.449	D	0.088	0.073
Hexachlorocyclopentadiene	ND		0.088	0.059
1,1'-Biphenyl	ND		0.088	0.053
2-Chloronaphthalene	ND		0.088	0.083
2-Nitroaniline	ND		0.088	0.053
Dimethyl phthalate	ND		0.088	0.053

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-005
Client ID: AOC-7-3/
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0144.D

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 25.6

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.088	0.053
Acenaphthylene	ND		0.088	0.062
3-Nitroaniline	ND		0.088	0.073
Acenaphthene	0.257	D	0.088	0.071
2,4-Dinitrotoluene	ND		0.088	0.057
Dibenzofuran	0.074	DJ	0.088	0.053
Diethyl phthalate	ND		0.088	0.065
Fluorene	0.274	D	0.088	0.053
4-Chlorophenyl phenyl ether	ND		0.088	0.053
4-Nitroaniline	ND		0.088	0.072
1,2,4,5-Tetrachlorobenzene	ND		0.088	0.053
N-Nitrosodiphenylamine	ND		0.088	0.053
4-Bromophenyl phenyl ether	ND		0.088	0.053
Hexachlorobenzene	ND		0.088	0.071
Atrazine	ND		0.088	0.062
Phenanthrene	ND		0.088	0.058
Anthracene	ND		0.088	0.088
Carbazole	ND		0.088	0.053
Di-n-butyl phthalate	ND		0.088	0.079
Fluoranthene	0.275	D	0.088	0.053
Pyrene	0.876	D	0.088	0.065
Butyl benzyl phthalate	ND		0.088	0.056
3,3'-Dichlorobenzidine	ND		0.088	0.062
Benzo[a]anthracene	ND		0.088	0.085
Chrysene	ND		0.088	0.060
Bis(2-ethylhexyl) phthalate	ND		0.088	0.053
Di-n-octyl phthalate	ND		0.088	0.078
Benzo[b]fluoranthene	ND		0.088	0.054
Benzo[k]fluoranthene	ND		0.088	0.083
Benzo[a]pyrene	ND		0.088	0.053
Indeno[1,2,3-cd]pyrene	ND		0.088	0.058
Dibenz[a,h]anthracene	ND		0.088	0.064
Benzo[g,h,i]perylene	ND		0.088	0.079
Dinitrotoluene (2,4- and 2,6-)	ND		0.088	0.057
Total Target Compounds (53):	2.39	DJ		

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09197-005
Client ID: AOC-7-3/
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Date File: C0144.D

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 25.6

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	0.502	1.56
	Unknown PAH	0.467	3.60
	Unknown SV	0.573	3.67
	Unknown PAH	0.669	3.70
	Unknown PAH	0.361	3.74
	Unknown PAH	0.986	3.95
	Unknown PAH	1.14	4.36
	Unknown PAH	0.687	4.61
	Unknown SV	0.617	4.73
	Unknown SV	0.617	4.84
	Unknown PAH	1.36	4.88
	Unknown SV	1.05	4.96
	Unknown PAH	0.881	5.06
	Unknown PAH	1.54	5.13

Total TICs = 11.5

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-007
Client ID: AOC-8/12.5
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: C0240.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.040	0.024
Bis(2-chloroethyl) ether	ND		0.040	0.028
Bis(2-chloroisopropyl) ether	ND		0.040	0.024
N-Nitrosodi-n-propylamine	ND		0.040	0.026
Acetophenone	ND		0.040	0.024
Hexachloroethane	ND		0.040	0.024
Nitrobenzene	ND		0.040	0.039
Isophorone	ND		0.040	0.026
Bis(2-chloroethoxy) methane	ND		0.040	0.034
Naphthalene	ND		0.040	0.024
4-Chloroaniline	ND		0.040	0.038
Hexachlorobutadiene	ND		0.040	0.024
Caprolactam	ND		0.040	0.024
2-Methylnaphthalene	ND		0.040	0.033
Hexachlorocyclopentadiene	ND		0.040	0.027
1,1'-Biphenyl	ND		0.040	0.024
2-Chloronaphthalene	ND		0.040	0.038
2-Nitroaniline	ND		0.040	0.024
Dimethyl phthalate	ND		0.040	0.024

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-007
Client ID: AOC-8/12.5
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: C0240.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.040	0.024
Acenaphthylene	ND		0.040	0.028
3-Nitroaniline	ND		0.040	0.033
Acenaphthene	ND		0.040	0.032
2,4-Dinitrotoluene	ND		0.040	0.026
Dibenzofuran	ND		0.040	0.024
Diethyl phthalate	ND		0.040	0.030
Fluorene	ND		0.040	0.024
4-Chlorophenyl phenyl ether	ND		0.040	0.024
4-Nitroaniline	ND		0.040	0.033
1,2,4,5-Tetrachlorobenzene	ND		0.040	0.024
N-Nitrosodiphenylamine	ND		0.040	0.024
4-Bromophenyl phenyl ether	ND		0.040	0.024
Hexachlorobenzene	ND		0.040	0.032
Atrazine	ND		0.040	0.028
Phenanthrene	ND		0.040	0.026
Anthracene	ND		0.040	0.040
Carbazole	ND		0.040	0.024
Di-n-butyl phthalate	ND		0.040	0.036
Fluoranthene	ND		0.040	0.024
Pyrene	ND		0.040	0.030
Butyl benzyl phthalate	ND		0.040	0.026
3,3'-Dichlorobenzidine	ND		0.040	0.028
Benzo[a]anthracene	ND		0.040	0.038
Chrysene	ND		0.040	0.027
Bis(2-ethylhexyl) phthalate	ND		0.040	0.024
Di-n-octyl phthalate	ND		0.040	0.036
Benzo[b]fluoranthene	ND		0.040	0.024
Benzo[k]fluoranthene	ND		0.040	0.038
Benzo[a]pyrene	ND		0.040	0.024
Indeno[1,2,3-cd]pyrene	ND		0.040	0.026
Dibenz[a,h]anthracene	ND		0.040	0.029
Benzo[g,h,i]perylene	ND		0.040	0.036
Dinitrotoluene (2,4- and 2,6-)	ND		0.040	0.026

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09197-007
Client ID: AOC-8/12.5
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Date File: C0240.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-009
Client ID: AOC-12-2
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0145.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.077	0.046
Bis(2-chloroethyl) ether	ND		0.077	0.054
Bis(2-chloroisopropyl) ether	ND		0.077	0.046
N-Nitrosodi-n-propylamine	ND		0.077	0.051
Acetophenone	ND		0.077	0.046
Hexachloroethane	ND		0.077	0.046
Nitrobenzene	ND		0.077	0.075
Isophorone	ND		0.077	0.050
Bis(2-chloroethoxy) methane	ND		0.077	0.065
Naphthalene	ND		0.077	0.046
4-Chloroaniline	ND		0.077	0.072
Hexachlorobutadiene	ND		0.077	0.046
Caprolactam	ND		0.077	0.046
2-Methylnaphthalene	ND		0.077	0.064
Hexachlorocyclopentadiene	ND		0.077	0.052
1,1'-Biphenyl	ND		0.077	0.046
2-Chloronaphthalene	ND		0.077	0.072
2-Nitroaniline	ND		0.077	0.046
Dimethyl phthalate	ND		0.077	0.046

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-009
Client ID: AOC-12-2
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0145.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.077	0.046
Acenaphthylene	ND		0.077	0.054
3-Nitroaniline	ND		0.077	0.064
Acenaphthene	ND		0.077	0.062
2,4-Dinitrotoluene	ND		0.077	0.050
Dibenzofuran	ND		0.077	0.046
Diethyl phthalate	ND		0.077	0.057
Fluorene	ND		0.077	0.046
4-Chlorophenyl phenyl ether	ND		0.077	0.046
4-Nitroaniline	ND		0.077	0.063
1,2,4,5-Tetrachlorobenzene	ND		0.077	0.046
N-Nitrosodiphenylamine	ND		0.077	0.046
4-Bromophenyl phenyl ether	ND		0.077	0.046
Hexachlorobenzene	ND		0.077	0.062
Atrazine	ND		0.077	0.054
Phenanthrene	0.113		0.077	0.051
Anthracene	ND		0.077	0.077
Carbazole	ND		0.077	0.046
Di-n-butyl phthalate	0.217		0.077	0.069
Fluoranthene	0.157		0.077	0.046
Pyrene	0.215		0.077	0.057
Butyl benzyl phthalate	ND		0.077	0.049
3,3'-Dichlorobenzidine	ND		0.077	0.054
Benzo[a]anthracene	0.149		0.077	0.074
Chrysene	0.173		0.077	0.052
Bis(2-ethylhexyl) phthalate	0.079		0.077	0.046
Di-n-octyl phthalate	ND		0.077	0.068
Benzo[b]fluoranthene	ND		0.077	0.047
Benzo[k]fluoranthene	ND		0.077	0.072
Benzo[a]pyrene	ND		0.077	0.046
Indeno[1,2,3-cd]pyrene	ND		0.077	0.051
Dibenz[a,h]anthracene	ND		0.077	0.056
Benzo[g,h,i]perylene	ND		0.077	0.069
Dinitrotoluene (2,4- and 2,6-)	ND		0.077	0.050

Total Target Compounds (53): 1.10

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09197-009
Client ID: AOC-12-2
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Date File: C0145.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-010
Client ID: AOC-6/18
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0141.D

GC/MS Column: DB-5
Sample wt/vol: 15.15g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.040	0.024
Bis(2-chloroethyl) ether	ND		0.040	0.028
Bis(2-chloroisopropyl) ether	ND		0.040	0.024
N-Nitrosodi-n-propylamine	ND		0.040	0.026
Acetophenone	ND		0.040	0.024
Hexachloroethane	ND		0.040	0.024
Nitrobenzene	ND		0.040	0.039
Isophorone	ND		0.040	0.026
Bis(2-chloroethoxy) methane	ND		0.040	0.034
Naphthalene	ND		0.040	0.024
4-Chloroaniline	ND		0.040	0.038
Hexachlorobutadiene	ND		0.040	0.024
Caprolactam	ND		0.040	0.024
2-Methylnaphthalene	ND		0.040	0.033
Hexachlorocyclopentadiene	ND		0.040	0.027
1,1'-Biphenyl	ND		0.040	0.024
2-Chloronaphthalene	ND		0.040	0.038
2-Nitroaniline	ND		0.040	0.024
Dimethyl phthalate	ND		0.040	0.024

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09197-010
Client ID: AOC-6/18
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0141.D

GC/MS Column: DB-5
Sample wt/vol: 15.15g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.040	0.024
Acenaphthylene	ND		0.040	0.028
3-Nitroaniline	ND		0.040	0.033
Acenaphthene	ND		0.040	0.032
2,4-Dinitrotoluene	ND		0.040	0.026
Dibenzofuran	ND		0.040	0.024
Diethyl phthalate	ND		0.040	0.030
Fluorene	ND		0.040	0.024
4-Chlorophenyl phenyl ether	ND		0.040	0.024
4-Nitroaniline	ND		0.040	0.033
1,2,4,5-Tetrachlorobenzene	ND		0.040	0.024
N-Nitrosodiphenylamine	ND		0.040	0.024
4-Bromophenyl phenyl ether	ND		0.040	0.024
Hexachlorobenzene	ND		0.040	0.032
Atrazine	ND		0.040	0.028
Phenanthrene	ND		0.040	0.026
Anthracene	ND		0.040	0.040
Carbazole	ND		0.040	0.024
Di-n-butyl phthalate	ND		0.040	0.036
Fluoranthene	ND		0.040	0.024
Pyrene	ND		0.040	0.030
Butyl benzyl phthalate	ND		0.040	0.026
3,3'-Dichlorobenzidine	ND		0.040	0.028
Benzo[a]anthracene	ND		0.040	0.038
Chrysene	ND		0.040	0.027
Bis(2-ethylhexyl) phthalate	ND		0.040	0.024
Di-n-octyl phthalate	ND		0.040	0.036
Benzo[b]fluoranthene	ND		0.040	0.024
Benzo[k]fluoranthene	ND		0.040	0.038
Benzo[a]pyrene	ND		0.040	0.024
Indeno[1,2,3-cd]pyrene	ND		0.040	0.026
Dibenz[a,h]anthracene	ND		0.040	0.029
Benzo[g,h,i]perylene	ND		0.040	0.036
Dinitrotoluene (2,4- and 2,6-)	ND		0.040	0.026

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09197-010
Client ID: AOC-6/18
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Date File: C0141.D

GC/MS Column: DB-5
Sample wt/vol: 15.15g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09197-004
Client ID: AOC-7-2/11
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4376.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.89g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 17.8

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00985	0.00394
Aroclor-1221	ND		0.00985	0.00394
Aroclor-1232	ND		0.00985	0.00394
Aroclor-1242	ND		0.00985	0.00394
Aroclor-1248	ND		0.00985	0.00394
Aroclor-1254	ND		0.00985	0.00394
Aroclor-1260	ND		0.00985	0.00394
Aroclor-1262	ND		0.00985	0.00394
Aroclor-1268	ND		0.00985	0.00394
PCBs	ND		0.00985	0.00394

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09197-005
Client ID: AOC-7-3/9.
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4377.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.35g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 25.6

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.011	0.00443
Aroclor-1221	ND		0.011	0.00443
Aroclor-1232	ND		0.011	0.00443
Aroclor-1242	ND		0.011	0.00443
Aroclor-1248	ND		0.011	0.00443
Aroclor-1254	ND		0.011	0.00443
Aroclor-1260	ND		0.011	0.00443
Aroclor-1262	ND		0.011	0.00443
Aroclor-1268	ND		0.011	0.00443
PCBs	ND		0.011	0.00443

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09197-009
Client ID: AOC-12-2/3
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4378.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.21g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00192	0.000768
Aroclor-1221	ND		0.00192	0.000768
Aroclor-1232	ND		0.00192	0.000768
Aroclor-1242	ND		0.00192	0.000768
Aroclor-1248	ND		0.00192	0.000768
Aroclor-1254	ND		0.00192	0.000768
Aroclor-1260	0.194		0.00192	0.000768
Aroclor-1262	ND		0.00192	0.000768
Aroclor-1268	ND		0.00192	0.000768
PCBs	0.194		0.00192	0.000768

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09197-004
Client ID: AOC-7-2/11
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4640.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.89g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 17.8

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00197	0.000985
beta-BHC	ND		0.00197	0.000985
gamma-BHC (Lindane)	ND		0.00197	0.000985
delta-BHC	ND		0.00197	0.000985
Heptachlor	ND		0.00197	0.000985
Aldrin	ND		0.00197	0.000985
Heptachlor epoxide	ND		0.00197	0.000985
Endosulfan I	ND		0.00197	0.000985
4,4'-DDE	ND		0.00197	0.000985
Dieldrin	ND		0.00197	0.000985
Endrin	ND		0.00197	0.000985
Endosulfan II	ND		0.00197	0.000985
4,4'-DDD	ND		0.00197	0.000985
Endrin aldehyde	ND		0.00197	0.000985
Endosulfan sulfate	ND		0.00197	0.000985
4,4'-DDT	ND		0.00197	0.000985
Endrin ketone	ND		0.00197	0.000985
Methoxychlor	ND		0.00197	0.000985
alpha-Chlordane	ND		0.00197	0.000985
gamma-Chlordane	ND		0.00197	0.000985
Toxaphene	ND		0.025	0.012
Endosulfan (I and II)	ND		0.00197	0.000985
Chlordane (alpha and gamma)	ND		0.00197	0.000985

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09197-005
Client ID: AOC-7-3/9.
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4642.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.35g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 25.6

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00221	0.00111
beta-BHC	ND		0.00221	0.00111
gamma-BHC (Lindane)	ND		0.00221	0.00111
delta-BHC	ND		0.00221	0.00111
Heptachlor	ND		0.00221	0.00111
Aldrin	ND		0.00221	0.00111
Heptachlor epoxide	ND		0.00221	0.00111
Endosulfan I	ND		0.00221	0.00111
4,4'-DDE	ND		0.00221	0.00111
Dieldrin	ND		0.00221	0.00111
Endrin	ND		0.00221	0.00111
Endosulfan II	ND		0.00221	0.00111
4,4'-DDD	ND		0.00221	0.00111
Endrin aldehyde	ND		0.00221	0.00111
Endosulfan sulfate	ND		0.00221	0.00111
4,4'-DDT	ND		0.00221	0.00111
Endrin ketone	ND		0.00221	0.00111
Methoxychlor	ND		0.00221	0.00111
alpha-Chlordane	ND		0.00221	0.00111
gamma-Chlordane	ND		0.00221	0.00111
Toxaphene	ND		0.028	0.013
Endosulfan (I and II)	ND		0.00221	0.00111
Chlordane (alpha and gamma)	ND		0.00221	0.00111

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09197-007
Client ID: AOC-8/12.5
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4643.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.88g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00039	0.000195
beta-BHC	ND		0.00039	0.000195
gamma-BHC (Lindane)	ND		0.00039	0.000195
delta-BHC	ND		0.00039	0.000195
Heptachlor	ND		0.00039	0.000195
Aldrin	ND		0.00039	0.000195
Heptachlor epoxide	ND		0.00039	0.000195
Endosulfan I	ND		0.00039	0.000195
4,4'-DDE	ND		0.00039	0.000195
Dieldrin	ND		0.00039	0.000195
Endrin	ND		0.00039	0.000195
Endosulfan II	ND		0.00039	0.000195
4,4'-DDD	ND		0.00039	0.000195
Endrin aldehyde	ND		0.00039	0.000195
Endosulfan sulfate	ND		0.00039	0.000195
4,4'-DDT	ND		0.00039	0.000195
Endrin ketone	ND		0.00039	0.000195
Methoxychlor	ND		0.00039	0.000195
alpha-Chlordane	ND		0.00039	0.000195
gamma-Chlordane	ND		0.00039	0.000195
Toxaphene	ND		0.00488	0.00234
Endosulfan (I and II)	ND		0.00039	0.000195
Chlordane (alpha and gamma)	ND		0.00039	0.000195

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09197-009
Client ID: AOC-12-2/3
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4644.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.21g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00192	0.000962
beta-BHC	ND		0.00192	0.000962
gamma-BHC (Lindane)	ND		0.00192	0.000962
delta-BHC	ND		0.00192	0.000962
Heptachlor	ND		0.00192	0.000962
Aldrin	ND		0.00192	0.000962
Heptachlor epoxide	ND		0.00192	0.000962
Endosulfan I	ND		0.00192	0.000962
4,4'-DDE	ND		0.00192	0.000962
Dieldrin	ND		0.00192	0.000962
Endrin	ND		0.00192	0.000962
Endosulfan II	ND		0.00192	0.000962
4,4'-DDD	ND		0.00192	0.000962
Endrin aldehyde	ND		0.00192	0.000962
Endosulfan sulfate	ND		0.00192	0.000962
4,4'-DDT	ND		0.00192	0.000962
Endrin ketone	ND		0.00192	0.000962
Methoxychlor	ND		0.00192	0.000962
alpha-Chlordane	ND		0.00192	0.000962
gamma-Chlordane	ND		0.00192	0.000962
Toxaphene	ND		0.024	0.012
Endosulfan (I and II)	ND		0.00192	0.000962
Chlordane (alpha and gamma)	ND		0.00192	0.000962

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09197-010
Client ID: AOC-6/18.5
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4645.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.54g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000398	0.000199
beta-BHC	ND		0.000398	0.000199
gamma-BHC (Lindane)	ND		0.000398	0.000199
delta-BHC	ND		0.000398	0.000199
Heptachlor	ND		0.000398	0.000199
Aldrin	ND		0.000398	0.000199
Heptachlor epoxide	ND		0.000398	0.000199
Endosulfan I	ND		0.000398	0.000199
4,4'-DDE	ND		0.000398	0.000199
Dieldrin	ND		0.000398	0.000199
Endrin	ND		0.000398	0.000199
Endosulfan II	ND		0.000398	0.000199
4,4'-DDD	ND		0.000398	0.000199
Endrin aldehyde	ND		0.000398	0.000199
Endosulfan sulfate	ND		0.000398	0.000199
4,4'-DDT	ND		0.000398	0.000199
Endrin ketone	ND		0.000398	0.000199
Methoxychlor	ND		0.000398	0.000199
alpha-Chlordane	ND		0.000398	0.000199
gamma-Chlordane	ND		0.000398	0.000199
Toxaphene	ND		0.00498	0.00239
Endosulfan (I and II)	ND		0.000398	0.000199
Chlordane (alpha and gamma)	ND		0.000398	0.000199

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09197-004
Client ID: AOC-7-2/11
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0333.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.83g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.8

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.019	0.00768
Dicamba	ND		0.019	0.00768
2,4-D	ND		0.019	0.00768
2,4,5-TP (Silvex)	ND		0.019	0.00768
2,4,5-T	ND		0.019	0.00768
2,4-DB	ND		0.019	0.00768
Dinoseb	ND		0.019	0.00768

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09197-005
Client ID: AOC-7-3/9.
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0334.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.36g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.6

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.022	0.00876
Dicamba	ND		0.022	0.00876
2,4-D	ND		0.022	0.00876
2,4,5-TP (Silvex)	ND		0.022	0.00876
2,4,5-T	ND		0.022	0.00876
2,4-DB	ND		0.022	0.00876
Dinoseb	ND		0.022	0.00876

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09197-007
Client ID: AOC-8/12.5
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0335.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.23g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.020	0.00792
Dicamba	ND		0.020	0.00792
2,4-D	ND		0.020	0.00792
2,4,5-TP (Silvex)	ND		0.020	0.00792
2,4,5-T	ND		0.020	0.00792
2,4-DB	ND		0.020	0.00792
Dinoseb	ND		0.020	0.00792

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09197-009
Client ID: AOC-12-2/3
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0336.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.019	0.00776
Dicamba	ND		0.019	0.00776
2,4-D	ND		0.019	0.00776
2,4,5-TP (Silvex)	ND		0.019	0.00776
2,4,5-T	ND		0.019	0.00776
2,4-DB	ND		0.019	0.00776
Dinoseb	ND		0.019	0.00776

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09197-010
Client ID: AOC-6/18.5
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0337.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.80g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.019	0.0077
Dicamba	ND		0.019	0.0077
2,4-D	ND		0.019	0.0077
2,4,5-TP (Silvex)	ND		0.019	0.0077
2,4,5-T	ND		0.019	0.0077
2,4-DB	ND		0.019	0.0077
Dinoseb	ND		0.019	0.0077

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09197-003
Client ID: AOC-7-1/
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0828.D

GC Column: RTX-5
Sample wt/vol: 10.48g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 15.4

Compound	Concentration	Q	RL	MDL
C9-C40	33.0	J	40.6	10.2

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09197-007
Client ID: AOC-8/12
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0816.D

GC Column: RTX-5
Sample wt/vol: 10.37g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
C9-C40	23.7	J	41.8	10.5

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09197-008
Client ID: AOC-12-1
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0817.D

GC Column: RTX-5
Sample wt/vol: 10.21g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 15.9

Compound	Concentration	Q	RL	MDL
C9-C40	52.1		41.9	10.5

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09197-009
Client ID: AOC-12-2
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0818.D

GC Column: RTX-5
Sample wt/vol: 10.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
C9-C40	150		41.7	10.4

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09197-010
Client ID: AOC-6/18
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0829.D

GC Column: RTX-5
Sample wt/vol: 10.42g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.7

Compound	Concentration	Q	RL	MDL
C9-C40	ND		42.0	10.5

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 09197-004
Client ID: AOC-7-2/
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6393.D
Dilution Factor: 5

GC Column: HP-5
Sample wt/vol: 5.24g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.8
Aro Date Analyzed: 09/24/2013
Data file: UB4468.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		69.6	34.8
C12-C16 Aliphatics	244	D	46.4	34.8
C16-C21 Aliphatics	629	D	69.6	23.2
C21-C40 Aliphatics	2510	D	232	23.2
Total Aliphatics	3380		232	34.8
C10-C12 Aromatics	ND		9.29	4.64
C12-C16 Aromatics	38.0		13.9	4.64
C16-C21 Aromatics	474		23.2	4.64
C21-C36 Aromatics	1450		37.1	4.64
Total Aromatics	1960		37.1	4.64
Total NJ-EPH	5350	D	232	34.8

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 09197-005
Client ID: AOC-7-3/
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/25/2013
Data file: U6394.D
Dilution Factor: 5

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 25.6
Aro Date Analyzed: 09/25/2013
Data file: UB4469.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	42.4	DJ	80.6	40.3
C12-C16 Aliphatics	351	D	53.8	40.3
C16-C21 Aliphatics	681	D	80.6	26.9
C21-C40 Aliphatics	2380	D	269	26.9
Total Aliphatics	3450		269	40.3
C10-C12 Aromatics	ND		10.8	5.38
C12-C16 Aromatics	49.9		16.1	5.38
C16-C21 Aromatics	575		26.9	5.38
C21-C36 Aromatics	1930		43.0	5.38
Total Aromatics	2550		43.0	5.38
Total NJ-EPH	6010	DJ	269	40.3

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 09197-006
Client ID: AOC-7-4/
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/25/2013
Data file: U6395.D
Dilution Factor: 10

GC Column: HP-5
Sample wt/vol: 5.08g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 26.7
Aro Date Analyzed: 09/25/2013
Data file: UB4470.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	92.2	DJ	161	80.6
C12-C16 Aliphatics	773	D	107	80.6
C16-C21 Aliphatics	1510	D	161	53.7
C21-C40 Aliphatics	5060	D	537	53.7
Total Aliphatics	7440		537	80.6
C10-C12 Aromatics	7.47	J	10.7	5.37
C12-C16 Aromatics	110		16.1	5.37
C16-C21 Aromatics	1190		26.9	5.37
C21-C36 Aromatics	3120		43.0	5.37
Total Aromatics	4430	J	43.0	5.37
Total NJ-EPH	11900	DJ	537	80.6

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Lead

Client/Project: EWMA50 DIVISION AVE. - 208322

Batch #: 442
Date Received: 09/18/13 16:25
Method: 6020

Lab ID	Client ID	Result	Q	DF	Matrix-Unit	RL	MDL	% Moist	Date Collected	Date Analyzed
E13-09197-001	AOC-5-1	17.4		1	Soil-mg/Kg	0.636	0.159	16.0	09/17/13 14:50	09/23/13 15:01
E13-09197-002	AOC-5-2	15.9		1	Soil-mg/Kg	0.660	0.165	17.3	09/17/13 15:00	09/23/13 15:05

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09197-004
Client ID: AOC-7-2
Date Collected: 09/17/13 14:32
Date Received: 09/18/13 16:25
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.8
Batch #: 442

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	23100		1	13.0	6.52	09/23/13 14:34	6020
Antimony	ND		1	1.30	0.326	09/23/13 14:34	6020
Arsenic	3.11		1	0.652	0.326	09/23/13 14:34	6020
Barium	148		1	13.0	3.26	09/23/13 14:34	6020
Beryllium	1.28		1	0.456	0.261	09/23/13 14:34	6020
Cadmium	ND		1	0.652	0.163	09/23/13 14:34	6020
Calcium	6530		1	65.2	32.6	09/23/13 14:34	6020
Chromium	37.7		1	2.61	0.652	09/23/13 14:34	6020
Cobalt	16.3		1	2.61	0.652	09/23/13 14:34	6020
Copper	12.9		1	2.61	0.652	09/23/13 14:34	6020
Iron	27300		1	32.6	16.3	09/23/13 14:34	6020
Lead	21.7		1	0.652	0.163	09/23/13 14:34	6020
Magnesium	10300		1	65.2	16.3	09/23/13 14:34	6020
Manganese	337		1	1.30	0.326	09/23/13 14:34	6020
Mercury	0.020		1	0.015	0.00718	09/23/13 14:22	7471A
Nickel	62.9		1	1.30	0.652	09/23/13 14:34	6020
Potassium	3100		1	65.2	16.3	09/23/13 14:34	6020
Selenium	ND		1	2.61	1.30	09/23/13 14:34	6020
Silver	ND		1	0.652	0.163	09/23/13 14:34	6020
Sodium	5440		1	130	32.6	09/23/13 14:34	6020
Thallium	ND		1	0.652	0.163	09/23/13 14:34	6020
Vanadium	29.4		1	2.61	0.652	09/23/13 14:34	6020
Zinc	56.9		1	2.61	2.61	09/23/13 14:34	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09197-005
Client ID: AOC-7-3
Date Collected: 09/17/13 15:47
Date Received: 09/18/13 16:25
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 25.6
Batch #: 442

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	24200		1	14.7	7.35	09/23/13 14:38	6020
Antimony	ND		1	1.47	0.367	09/23/13 14:38	6020
Arsenic	7.08		1	0.735	0.367	09/23/13 14:38	6020
Barium	136		1	14.7	3.67	09/23/13 14:38	6020
Beryllium	1.29		1	0.514	0.294	09/23/13 14:38	6020
Cadmium	ND		1	0.735	0.184	09/23/13 14:38	6020
Calcium	2330		1	73.5	36.7	09/23/13 14:38	6020
Chromium	63.0		1	2.94	0.735	09/23/13 14:38	6020
Cobalt	20.8		1	2.94	0.735	09/23/13 14:38	6020
Copper	20.1		1	2.94	0.735	09/23/13 14:38	6020
Iron	34500		1	36.7	18.4	09/23/13 14:38	6020
Lead	32.5		1	0.735	0.184	09/23/13 14:38	6020
Magnesium	16700		1	73.5	18.4	09/23/13 14:38	6020
Manganese	488		1	1.47	0.367	09/23/13 14:38	6020
Mercury	0.040		1	0.017	0.00796	09/23/13 14:29	7471A
Nickel	114		1	1.47	0.735	09/23/13 14:38	6020
Potassium	3520		1	73.5	18.4	09/23/13 14:38	6020
Selenium	ND		1	2.94	1.47	09/23/13 14:38	6020
Silver	ND		1	0.735	0.184	09/23/13 14:38	6020
Sodium	1240		1	147	36.7	09/23/13 14:38	6020
Thallium	ND		1	0.735	0.184	09/23/13 14:38	6020
Vanadium	40.2		1	2.94	0.735	09/23/13 14:38	6020
Zinc	83.3		1	2.94	2.94	09/23/13 14:38	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09197-007
Client ID: AOC-8
Date Collected: 09/17/13 13:30
Date Received: 09/18/13 16:25
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.0
Batch #: 442

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	28300		2	25.9	12.9	09/23/13 15:51	6020
Antimony	ND		1	1.29	0.323	09/23/13 14:49	6020
Arsenic	2.13		2	1.29	0.647	09/23/13 15:51	6020
Barium	203		1	12.9	3.23	09/23/13 14:49	6020
Beryllium	1.72		1	0.453	0.259	09/23/13 14:49	6020
Cadmium	ND		1	0.647	0.162	09/23/13 14:49	6020
Calcium	1960		2	129	64.7	09/23/13 15:51	6020
Chromium	38.4		2	5.17	1.29	09/23/13 15:51	6020
Cobalt	19.8		2	5.17	1.29	09/23/13 15:51	6020
Copper	9.02		2	5.17	1.29	09/23/13 15:51	6020
Iron	34600		2	64.7	32.3	09/23/13 15:51	6020
Lead	21.2		1	0.647	0.162	09/23/13 14:49	6020
Magnesium	5320		2	129	32.3	09/23/13 15:51	6020
Manganese	906		2	2.59	0.647	09/23/13 15:51	6020
Mercury	0.348		1	0.015	0.00735	09/23/13 14:32	7471A
Nickel	41.2		2	2.59	1.29	09/23/13 15:51	6020
Potassium	3530		2	129	32.3	09/23/13 15:51	6020
Selenium	ND		2	5.17	2.59	09/23/13 15:51	6020
Silver	ND		1	0.647	0.162	09/23/13 14:49	6020
Sodium	681		2	259	64.7	09/23/13 15:51	6020
Thallium	0.221	J	1	0.647	0.162	09/23/13 14:49	6020
Vanadium	34.2		2	5.17	1.29	09/23/13 15:51	6020
Zinc	53.9		2	5.17	5.17	09/23/13 15:51	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09197-009
Client ID: AOC-12-2
Date Collected: 09/17/13 11:05
Date Received: 09/18/13 16:25
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.0
Batch #: 442

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	21800		1	12.9	6.44	09/23/13 14:53	6020
Antimony	ND		1	1.29	0.322	09/23/13 14:53	6020
Arsenic	2.21		1	0.644	0.322	09/23/13 14:53	6020
Barium	175		1	12.9	3.22	09/23/13 14:53	6020
Beryllium	1.85		1	0.451	0.258	09/23/13 14:53	6020
Cadmium	ND		1	0.644	0.161	09/23/13 14:53	6020
Calcium	4210		1	64.4	32.2	09/23/13 14:53	6020
Chromium	29.3		1	2.58	0.644	09/23/13 14:53	6020
Cobalt	19.4		1	2.58	0.644	09/23/13 14:53	6020
Copper	18.0		1	2.58	0.644	09/23/13 14:53	6020
Iron	26800		1	32.2	16.1	09/23/13 14:53	6020
Lead	26.3		1	0.644	0.161	09/23/13 14:53	6020
Magnesium	6740		1	64.4	16.1	09/23/13 14:53	6020
Manganese	648		1	1.29	0.322	09/23/13 14:53	6020
Mercury	0.676		1	0.015	0.00725	09/23/13 14:34	7471A
Nickel	38.6		1	1.29	0.644	09/23/13 14:53	6020
Potassium	3680		1	64.4	16.1	09/23/13 14:53	6020
Selenium	ND		1	2.58	1.29	09/23/13 14:53	6020
Silver	ND		1	0.644	0.161	09/23/13 14:53	6020
Sodium	240		1	129	32.2	09/23/13 14:53	6020
Thallium	0.197	J	1	0.644	0.161	09/23/13 14:53	6020
Vanadium	29.3		1	2.58	0.644	09/23/13 14:53	6020
Zinc	93.6		1	2.58	2.58	09/23/13 14:53	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09197-010
Client ID: AOC-6
Date Collected: 09/17/13 17:00
Date Received: 09/18/13 16:25
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.7
Batch #: 442

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	31800		2	27.1	13.6	09/23/13 15:55	6020
Antimony	ND		1	1.36	0.339	09/23/13 14:57	6020
Arsenic	1.79		2	1.36	0.678	09/23/13 15:55	6020
Barium	203		1	13.6	3.39	09/23/13 14:57	6020
Beryllium	2.05		1	0.474	0.271	09/23/13 14:57	6020
Cadmium	ND		1	0.678	0.169	09/23/13 14:57	6020
Calcium	2990		2	136	67.8	09/23/13 15:55	6020
Chromium	37.5		2	5.42	1.36	09/23/13 15:55	6020
Cobalt	16.3		2	5.42	1.36	09/23/13 15:55	6020
Copper	12.2		2	5.42	1.36	09/23/13 15:55	6020
Iron	36500		2	67.8	33.9	09/23/13 15:55	6020
Lead	17.0		1	0.678	0.169	09/23/13 14:57	6020
Magnesium	7550		2	136	33.9	09/23/13 15:55	6020
Manganese	433		2	2.71	0.678	09/23/13 15:55	6020
Mercury	ND		1	0.016	0.00747	09/23/13 14:37	7471A
Nickel	57.7		2	2.71	1.36	09/23/13 15:55	6020
Potassium	4160		2	136	33.9	09/23/13 15:55	6020
Selenium	ND		2	5.42	2.71	09/23/13 15:55	6020
Silver	ND		1	0.678	0.169	09/23/13 14:57	6020
Sodium	459		2	271	67.8	09/23/13 15:55	6020
Thallium	0.210	J	1	0.678	0.169	09/23/13 14:57	6020
Vanadium	31.6		2	5.42	1.36	09/23/13 15:55	6020
Zinc	63.0		2	5.42	5.42	09/23/13 15:55	6020

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/20/2013

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS130920	SOIL	J9358.D	128	92	87
09267-002	MEOH	J9359.D	124	91	86
09216-007	MEOH	J9363.D	124	92	88
LCSS130920	MEOH	J9366.D	121	94	89
09267-002MS	MEOH	J9367.D	120	94	90
09267-002MSD	MEOH	J9368.D	119	95	88
09247-003	MEOH	J9371.D	122	92	89
09247-008	MEOH	J9372.D	121	92	89
09197-004	MEOH	J9374.D	123	92	87

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	59-138	43-133
SMC2 = Toluene-d8	50 ppb	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	42-152	45-145

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/21/2013

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS130920-02	SOIL	F7751.D	94	89	83
LCSS130920-02	SOIL	F7752.D	89	98	91
09219-001MS	SOIL	F7753.D	82	95	89
09219-001MSD	SOIL	F7754.D	80	93	86
09197-001	SOIL	F7755.D	87	86	83
09197-002	SOIL	F7756.D	90	88	84
09197-005	SOIL	F7757.D	98	87	82
09197-007	SOIL	F7758.D	93	89	84
09197-009	SOIL	F7759.D	97	88	82
09197-010	SOIL	F7760.D	101	91	84
09247-001	SOIL	F7761.D	106	92	85
09247-002	SOIL	F7762.D	104	91	88
09247-004	SOIL	F7763.D	103	90	88
09247-005	SOIL	F7764.D	98	93	89
09247-007	SOIL	F7766.D	70	89	79
08859-001	SOIL	F7767.D	70	87	78
08859-002	SOIL	F7768.D	87	87	78
08859-026	SOIL	F7769.D	78	87	78
09219-001	SOIL	F7770.D	74	85	79

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	55-153	36-162
SMC2 = Toluene-d8	50 ppb	56-151	46-156
SMC3 = Bromofluorobenzene	50 ppb	67-140	43-151

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

8260LCS

LCS ACCURACY REPORT

Lab ID: LCSS130920
Date Received:
Date Analyzed: 09/20/2013
LCS Data file: J9366.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	43.0	86
Chloromethane	50.0	0.00	39.7	79
Vinyl chloride	50.0	0.00	36.9	74
Bromomethane	50.0	0.00	36.5	73
Chloroethane	50.0	0.00	39.9	80
Trichlorofluoromethane	50.0	0.00	35.5	71
Acrolein	150	0.00	113.7	76
1,1-Dichloroethene	50.0	0.00	39.9	80
Acetone	50.0	0.00	60.5	121
Carbon disulfide	50.0	0.00	35.3	71
Vinyl acetate	50.0	0.00	41.9	84
Methylene chloride	50.0	0.00	38.6	77
Acrylonitrile	150.0	0.00	192.0	128
tert-Butyl alcohol (TBA)	100.0	0.00	98.5	99
trans-1,2-Dichloroethene	50.0	0.00	40.7	81
Methyl tert-butyl ether (MTBE)	50.0	0.00	41.0	82
1,1-Dichloroethane	50.0	0.00	45.1	90
Diisopropyl ether (DIPE)	50.0	0.00	55.0	110
cis-1,2-Dichloroethene	50.0	0.00	41.6	83
2,2-Dichloropropane	50.0	0.00	37.3	75
2-Butanone (MEK)	50.0	0.00	59.6	119
Bromochloromethane	50.0	0.00	43.3	87
Chloroform	50.0	0.00	41.6	83
1,1,1-Trichloroethane	50.0	0.00	43.0	86
Carbon tetrachloride	50.0	0.00	41.8	84
1,1-Dichloropropene	50.0	0.00	42.3	85
1,2-Dichloroethane (EDC)	50.0	0.00	47.5	95
Benzene	50.0	0.00	42.6	85
Trichloroethene	50.0	0.00	47.3	95
1,2-Dichloropropane	50.0	0.00	48.9	98
Dibromomethane	50.0	0.00	44.4	89
1,4-Dioxane	1500	0.00	1310	87
Bromodichloromethane	50.0	0.00	44.3	89
2-Chloroethyl vinyl ether	50.0	0.00	49.2	98
cis-1,3-Dichloropropene	50.0	0.00	42.9	86
4-Methyl-2-pentanone (MIBK)	50.0	0.00	62.6	125
Toluene	50.0	0.00	44.2	88
trans-1,3-Dichloropropene	50.0	0.00	45.3	91
1,1,2-Trichloroethane	50.0	0.00	45.2	90
Tetrachloroethene	50.0	0.00	40.7	81
1,3-Dichloropropane	50.0	0.00	46.7	93

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130920
Date Received:
Date Analyzed: 09/20/2013
LCS Data file: J9366.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
2-Hexanone	50.0	0.00	64.9	130
Dibromochloromethane	50.0	0.00	44.6	89
1,2-Dibromoethane (EDB)	50.0	0.00	44.6	89
Chlorobenzene	50.0	0.00	50.9	102
1,1,1,2-Tetrachloroethane	50.0	0.00	50.1	100
Ethylbenzene	50.0	0.00	52.0	104
m,p-Xylene	100.0	0.00	104.3	104
o-Xylene	50.0	0.00	51.7	103
Styrene	50.0	0.00	53.5	107
Bromoform	50.0	0.00	50.9	102
Isopropylbenzene	50.0	0.00	50.9	102
1,1,2,2-Tetrachloroethane	50.0	0.00	46.1	92
Bromobenzene	50.0	0.00	48.2	96
1,2,3-Trichloropropane	50.0	0.00	50.2	100
n-Propylbenzene	50.0	0.00	51.2	102
2-Chlorotoluene	50.0	0.00	49.6	99
1,3,5-Trimethylbenzene	50.0	0.00	50.3	101
4-Chlorotoluene	50.0	0.00	50.4	101
tert-Butylbenzene	50.0	0.00	49.6	99
1,2,4-Trimethylbenzene	50.0	0.00	49.4	99
sec-Butylbenzene	50.0	0.00	48.5	97
1,3-Dichlorobenzene	50.0	0.00	46.0	92
4-Isopropyltoluene	50.0	0.00	49.5	99
1,4-Dichlorobenzene	50.0	0.00	45.9	92
n-Butylbenzene	50.0	0.00	48.8	98
1,2-Dichlorobenzene	50.0	0.00	46.0	92
1,2-Dibromo-3-chloropropane	50.0	0.00	50.2	100
1,2,4-Trichlorobenzene	50.0	0.00	44.2	88
Naphthalene	50.0	0.00	46.4	93
1,2,3-Trichlorobenzene	50.0	0.00	49.1	98
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	44.1	88
Methyl acetate	50.0	0.00	60.4	121
Cyclohexane	50.0	0.00	53.8	108
Methylcyclohexane	50.0	0.00	53.4	107

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits

Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260LCS

LCS ACCURACY REPORT

Lab ID: LCSS130920-02
Date Received:
Date Analyzed: 09/21/2013
LCS Data file: F7752.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	37.7	75
Chloromethane	50.0	0.00	57.0	114
Vinyl chloride	50.0	0.00	56.5	113
Bromomethane	50.0	0.00	50.8	102
Chloroethane	50.0	0.00	56.6	113
Trichlorofluoromethane	50.0	0.00	54.6	109
Acrolein	150	0.00	187.4	125
1,1-Dichloroethene	50.0	0.00	52.4	105
Acetone	50.0	0.00	48.6	97
Carbon disulfide	50.0	0.00	62.2	124
Vinyl acetate	50.0	0.00	49.2	98
Methylene chloride	50.0	0.00	49.8	100
Acrylonitrile	150.0	0.00	193.8	129
tert-Butyl alcohol (TBA)	100.0	0.00	86.3	86
trans-1,2-Dichloroethene	50.0	0.00	54.0	108
Methyl tert-butyl ether (MTBE)	50.0	0.00	48.9	98
1,1-Dichloroethane	50.0	0.00	58.6	117
Diisopropyl ether (DIPE)	50.0	0.00	64.2	128
cis-1,2-Dichloroethene	50.0	0.00	58.1	116
2,2-Dichloropropane	50.0	0.00	52.4	105
2-Butanone (MEK)	50.0	0.00	45.0	90
Bromochloromethane	50.0	0.00	53.2	106
Chloroform	50.0	0.00	54.2	108
1,1,1-Trichloroethane	50.0	0.00	54.5	109
Carbon tetrachloride	50.0	0.00	54.7	109
1,1-Dichloropropene	50.0	0.00	56.4	113
1,2-Dichloroethane (EDC)	50.0	0.00	49.4	99
Benzene	50.0	0.00	56.1	112
Trichloroethene	50.0	0.00	49.0	98
1,2-Dichloropropane	50.0	0.00	55.5	111
Dibromomethane	50.0	0.00	46.1	92
1,4-Dioxane	1500	0.00	1371	91
Bromodichloromethane	50.0	0.00	49.7	99
2-Chloroethyl vinyl ether	50.0	0.00	42.8	86
cis-1,3-Dichloropropene	50.0	0.00	52.4	105
4-Methyl-2-pentanone (MIBK)	50.0	0.00	45.1	90
Toluene	50.0	0.00	53.1	106
trans-1,3-Dichloropropene	50.0	0.00	48.0	96
1,1,2-Trichloroethane	50.0	0.00	52.2	104
Tetrachloroethene	50.0	0.00	45.8	92
1,3-Dichloropropane	50.0	0.00	52.0	104

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130920-02
Date Received:
Date Analyzed: 09/21/2013
LCS Data file: F7752.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
2-Hexanone	50.0	0.00	36.8	74
Dibromochloromethane	50.0	0.00	49.9	100
1,2-Dibromoethane (EDB)	50.0	0.00	48.7	97
Chlorobenzene	50.0	0.00	48.1	96
1,1,1,2-Tetrachloroethane	50.0	0.00	49.8	100
Ethylbenzene	50.0	0.00	50.4	101
m,p-Xylene	100.0	0.00	92.1	92
o-Xylene	50.0	0.00	49.7	99
Styrene	50.0	0.00	48.7	97
Bromoform	50.0	0.00	47.1	94
Isopropylbenzene	50.0	0.00	50.1	100
1,1,2,2-Tetrachloroethane	50.0	0.00	47.5	95
Bromobenzene	50.0	0.00	47.8	96
1,2,3-Trichloropropane	50.0	0.00	45.1	90
n-Propylbenzene	50.0	0.00	50.0	100
2-Chlorotoluene	50.0	0.00	50.0	100
1,3,5-Trimethylbenzene	50.0	0.00	48.4	97
4-Chlorotoluene	50.0	0.00	48.1	96
tert-Butylbenzene	50.0	0.00	50.3	101
1,2,4-Trimethylbenzene	50.0	0.00	48.9	98
sec-Butylbenzene	50.0	0.00	51.3	103
1,3-Dichlorobenzene	50.0	0.00	46.0	92
4-Isopropyltoluene	50.0	0.00	48.6	97
1,4-Dichlorobenzene	50.0	0.00	46.0	92
n-Butylbenzene	50.0	0.00	48.6	97
1,2-Dichlorobenzene	50.0	0.00	47.0	94
1,2-Dibromo-3-chloropropane	50.0	0.00	40.3	81
1,2,4-Trichlorobenzene	50.0	0.00	39.2	78
Hexachlorobutadiene	50.0	0.00	42.3	85
Naphthalene	50.0	0.00	46.1	92
1,2,3-Trichlorobenzene	50.0	0.00	40.2	80
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	46.9	94
Methyl acetate	50.0	0.00	47.3	95
Cyclohexane	50.0	0.00	59.4	119
Methylcyclohexane	50.0	0.00	59.0	118

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits
Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD

MS/MSD SPIKE REPORT

Lab ID: 09267-002
Client ID: NAP-2
Date Received: 09/19/2013
Date Analyzed: 09/20/2013
MS Data file: J9367.D
MSD Data file: J9368.D

GC/MS Column: DB-624
Sample wt/vol: 0.032g
Matrix-Units: Soil-μg/Kg (ppb)
% Moisture: 18.2
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	45.8	92		46.4	93		1	
Chloromethane	50	0.0	37.8	76		37.3	75		1	
Vinyl chloride	50	0.0	36.8	74		37.9	76		3	
Bromomethane	50	0.0	36.2	72		35.9	72		1	
Chloroethane	50	0.0	40.3	81		40.6	81		1	
Trichlorofluoromethane	50	0.0	36.0	72		38.3	77		6	
Acrolein	150	0.0	114	76		119	79		4	
1,1-Dichloroethene	50	0.0	40.8	82		42.5	85		4	
Acetone	50	0.0	62.0	124		61.2	122		1	
Carbon disulfide	50	0.0	36.1	72		37.2	74		3	
Vinyl acetate	50	0.0	38.8	78		38.7	77		0	
Methylene chloride	50	0.0	37.9	76		38.1	76		1	
Acrylonitrile	150	0.0	179	119		182	121		2	
tert-Butyl alcohol (TBA)	100	0.0	99.3	99		102.5	103		3	
trans-1,2-Dichloroethene	50	0.0	40.8	82		42.1	84		3	
Methyl tert-butyl ether (MTB	50	0.0	40.1	80		40.7	81		1	
1,1-Dichloroethane	50	0.0	44.2	88		45.2	90		2	
Diisopropyl ether (DIPE)	50	0.0	53.4	107		54.0	108		1	
cis-1,2-Dichloroethene	50	0.0	40.6	81		41.4	83		2	
2,2-Dichloropropane	50	0.0	36.3	73		37.2	74		2	
2-Butanone (MEK)	50	0.0	58.1	116		57.4	115		1	
Bromochloromethane	50	0.0	43.0	86		43.4	87		1	
Chloroform	50	0.0	40.6	81		41.4	83		2	
1,1,1-Trichloroethane	50	0.0	44.1	88		45.9	92		4	
Carbon tetrachloride	50	0.0	43.7	87		46.3	93		6	
1,1-Dichloropropene	50	0.0	43.3	87		45.0	90		4	
1,2-Dichloroethane (EDC)	50	0.0	46.5	93		47.4	95		2	
Benzene	50	0.0	41.9	84		42.5	85		1	
Trichloroethene	50	0.0	48.2	96		50.1	100		4	
1,2-Dichloropropane	50	0.0	48.3	97		48.5	97		0	
Dibromomethane	50	0.0	44.2	88		44.3	89		0	
1,4-Dioxane	1,500	0.0	1438	96		1515	101		5	
Bromodichloromethane	50	0.0	43.4	87		44.3	89		2	
2-Chloroethyl vinyl ether	50	0.0	48.9	98		49.4	99		1	
cis-1,3-Dichloropropene	50	0.0	42.4	85		42.6	85		0	
4-Methyl-2-pentanone (MIBK	50	0.0	61.8	124		63.2	126		2	
Toluene	50	0.0	44.0	88		44.7	89		2	
trans-1,3-Dichloropropene	50	0.0	44.6	89		45.3	91		2	
1,1,2-Trichloroethane	50	0.0	45.0	90		45.0	90		0	
Tetrachloroethene	50	0.0	41.7	83		42.9	86		3	
1,3-Dichloropropane	50	0.0	45.5	91		46.3	93		2	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 09267-002
Client ID: NAP-2
Date Received: 09/19/2013
Date Analyzed: 09/20/2013
MS Data file: J9367.D
MSD Data file: J9368.D

GC/MS Column: DB-624
Sample wt/vol: 0.032g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 18.2
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50	0.00	64.4	129		64.0	128		1	
Dibromochloromethane	50	0.00	44.2	88		44.8	90		1	
1,2-Dibromoethane (EDB)	50	0.00	44.1	88		44.2	88		0	
Chlorobenzene	50	0.00	51.4	103		51.1	102		1	
1,1,1,2-Tetrachloroethane	50	0.00	50.2	100		50.0	100		0	
Ethylbenzene	50	0.00	53.2	106		53.2	106		0	
m,p-Xylene	100	0.00	105.5	106		106.7	107		1	
o-Xylene	50	0.00	52.2	104		51.5	103		1	
Styrene	50	0.00	53.7	107		53.7	107		0	
Bromoform	50	0.00	52.4	105		51.9	104		1	
Isopropylbenzene	50	0.00	52.6	105		53.0	106		1	
1,1,2,2-Tetrachloroethane	50	0.00	45.1	90		43.7	87		3	
Bromobenzene	50	0.00	48.3	97		47.9	96		1	
1,2,3-Trichloropropane	50	0.00	50.6	101		50.1	100		1	
n-Propylbenzene	50	0.00	52.5	105		52.9	106		1	
2-Chlorotoluene	50	0.00	50.8	102		49.8	100		2	
1,3,5-Trimethylbenzene	50	0.00	51.3	103		51.3	103		0	
4-Chlorotoluene	50	0.00	51.2	102		51.3	103		0	
tert-Butylbenzene	50	0.00	51.6	103		51.5	103		0	
1,2,4-Trimethylbenzene	50	0.00	50.4	101		49.9	100		1	
sec-Butylbenzene	50	0.00	51.5	103		52.2	104		1	
1,3-Dichlorobenzene	50	0.00	47.1	94		46.8	94		1	
4-Isopropyltoluene	50	0.00	51.9	104		52.0	104		0	
1,4-Dichlorobenzene	50	0.00	46.7	93		46.2	92		1	
n-Butylbenzene	50	0.00	51.8	104		51.9	104		0	
1,2-Dichlorobenzene	50	0.00	46.6	93		46.2	92		1	
1,2-Dibromo-3-chloropropan	50	0.00	50.4	101		49.8	100		1	
1,2,4-Trichlorobenzene	50	0.00	46.8	94		45.2	90		3	
Naphthalene	50	0.00	47.9	96		46.0	92		4	
1,2,3-Trichlorobenzene	50	0.00	53.5	107		49.8	100		7	
1,1,2-Trichloro-1,2,2-trifluo	50	0.00	50.1	100		51.6	103		3	
Methyl acetate	50	0.00	62.3	125		60.0	120		4	
Cyclohexane	50	0.00	59.6	119		61.7	123		3	
Methylcyclohexane	50	0.00	58.9	118		61.9	124		5	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: 09219-001
Client ID: NJ130109/2.5
Date Received:
Date Analyzed: 09/21/2013
MS Data file: F7753.D
MSD Data file: F7754.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	35.6	71		36.3	73		2	
Chloromethane	50	0.0	55.5	111		55.2	110		1	
Vinyl chloride	50	0.0	56.6	113		56.3	113		1	
Bromomethane	50	0.0	47.6	95		49.1	98		3	
Chloroethane	50	0.0	53.7	107		56.1	112		4	
Trichlorofluoromethane	50	0.0	48.1	96		48.2	96		0	
Acrolein	150	0.0	161	107		152	101		6	
1,1-Dichloroethene	50	0.0	50.0	100		49.9	100		0	
Acetone	50	0.0	45.9	92		43.1	86		6	
Carbon disulfide	50	0.0	57.9	116		58.8	118		2	
Vinyl acetate	50	0.0	45.1	90		45.3	91		0	
Methylene chloride	50	0.0	45.5	91		46.9	94		3	
Acrylonitrile	150	0.0	178	119		175	117		2	
tert-Butyl alcohol (TBA)	100	0.0	83.4	83		75.2	75		10	
trans-1,2-Dichloroethene	50	0.0	51.9	104		54.6	109		5	
Methyl tert-butyl ether (MTE	50	0.0	46.5	93		46.1	92		1	
1,1-Dichloroethane	50	0.0	55.0	110		56.5	113		3	
Diisopropyl ether (DIPE)	50	0.0	61.1	122		63.0	126		3	
cis-1,2-Dichloroethene	50	0.0	54.0	108		57.4	115		6	
2,2-Dichloropropane	50	0.0	46.9	94		50.2	100		7	
2-Butanone (MEK)	50	0.0	43.1	86		40.5	81		6	
Bromochloromethane	50	0.0	50.4	101		52.7	105		4	
Chloroform	50	0.0	49.8	100		50.7	101		2	
1,1,1-Trichloroethane	50	0.0	49.6	99		50.5	101		2	
Carbon tetrachloride	50	0.0	50.1	100		50.2	100		0	
1,1-Dichloropropene	50	0.0	51.4	103		53.0	106		3	
1,2-Dichloroethane (EDC)	50	0.0	44.2	88		43.4	87		2	
Benzene	50	0.0	52.1	104		54.6	109		5	
Trichloroethene	50	0.0	46.0	92		47.1	94		2	
1,2-Dichloropropane	50	0.0	54.2	108		54.5	109		1	
Dibromomethane	50	0.0	42.1	84		41.4	83		2	
1,4-Dioxane	1,500	0.0	1595	106		1289	86		21	
Bromodichloromethane	50	0.0	46.1	92		46.1	92		0	
2-Chloroethyl vinyl ether	50	0.0	43.6	87		40.2	80		8	
cis-1,3-Dichloropropene	50	0.0	50.4	101		49.0	98		3	
4-Methyl-2-pentanone (MIBI	50	0.0	44.5	89		40.2	80		10	
Toluene	50	0.0	51.3	103		50.9	102		1	
trans-1,3-Dichloropropene	50	0.0	46.3	93		43.1	86		7	
1,1,2-Trichloroethane	50	0.0	50.3	101		48.2	96		4	
Tetrachloroethene	50	0.0	42.7	85		43.0	86		1	
1,3-Dichloropropane	50	0.0	50.6	101		47.0	94		7	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 09219-001
Client ID: NJ130109/2.5
Date Received:
Date Analyzed: 09/21/2013
MS Data file: F7753.D
MSD Data file: F7754.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50	0.00	35.8	72		35.5	71		1	
Dibromochloromethane	50	0.00	47.2	94		44.0	88		7	
1,2-Dibromoethane (EDB)	50	0.00	46.3	93		43.3	87		7	
Chlorobenzene	50	0.00	46.1	92		46.8	94		2	
1,1,1,2-Tetrachloroethane	50	0.00	46.1	92		48.0	96		4	
Ethylbenzene	50	0.00	48.3	97		49.2	98		2	
m,p-Xylene	100	0.00	88.2	88		90.3	90		2	
o-Xylene	50	0.00	47.3	95		48.8	98		3	
Styrene	50	0.00	46.8	94		47.1	94		1	
Bromoform	50	0.00	45.0	90		43.7	87		3	
Isopropylbenzene	50	0.00	47.3	95		48.8	98		3	
1,1,2,2-Tetrachloroethane	50	0.00	44.7	89		42.5	85		5	
Bromobenzene	50	0.00	44.4	89		44.5	89		0	
1,2,3-Trichloropropane	50	0.00	42.2	84		40.6	81		4	
n-Propylbenzene	50	0.00	46.8	94		47.8	96		2	
2-Chlorotoluene	50	0.00	46.0	92		47.3	95		3	
1,3,5-Trimethylbenzene	50	0.00	44.6	89		46.6	93		4	
4-Chlorotoluene	50	0.00	44.2	88		45.5	91		3	
tert-Butylbenzene	50	0.00	46.3	93		48.3	97		4	
1,2,4-Trimethylbenzene	50	0.00	44.1	88		45.6	91		3	
sec-Butylbenzene	50	0.00	47.2	94		48.8	98		3	
1,3-Dichlorobenzene	50	0.00	41.9	84		43.1	86		3	
4-Isopropyltoluene	50	0.00	43.9	88		46.1	92		5	
1,4-Dichlorobenzene	50	0.00	41.9	84		42.7	85		2	
n-Butylbenzene	50	0.00	44.1	88		45.4	91		3	
1,2-Dichlorobenzene	50	0.00	42.1	84		43.4	87		3	
1,2-Dibromo-3-chloropropan	50	0.00	38.5	77		35.8	72		7	
1,2,4-Trichlorobenzene	50	0.00	35.1	70		36.8	74		5	
Hexachlorobutadiene	50	0.00	37.7	75		38.8	78		3	
Naphthalene	50	0.00	42.4	85		41.5	83		2	
1,2,3-Trichlorobenzene	50	0.00	36.1	72		37.2	74		3	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	44.7	89		46.9	94		5	
Methyl acetate	50	0.00	46.9	94		44.7	89		5	
Cyclohexane	50	0.00	58.3	117		62.5	125		7	
Methylcyclohexane	50	0.00	56.4	113		60.1	120		6	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

VOLATILE METHOD BLANK SUMMARY

Lab File ID: J9358.D Instrument ID: MSD_J

Date Analyzed: 09/20/2013 Time Analyzed: 11:14

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
NAP-2	09267-002	09/20/2013	11:40
SR-9-B-1RR	09216-007	09/20/2013	13:27
LCS-50PPB	LCSS130920	09/20/2013	14:47
MS	09267-002MS	09/20/2013	15:14
MSD	09267-002MSD	09/20/2013	15:41
B-19A	09247-003	09/20/2013	17:01
B-25	09247-008	09/20/2013	17:28
AOC-7-2/11-11.	09197-004	09/20/2013	18:22

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F7751.D

Instrument ID: MSD_F

Date Analyzed: 09/21/2013

Time Analyzed: 02:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS-50PPB	LCSS130920-02	09/21/2013	2:51
MS	09219-001MS	09/21/2013	3:22
MSD	09219-001MSD	09/21/2013	3:52
AOC-5-1/9-9.5	09197-001	09/21/2013	4:23
AOC-5-2/7.5-8	09197-002	09/21/2013	4:53
AOC-7-3/9.5-10	09197-005	09/21/2013	5:23
AOC-8/12.5-13	09197-007	09/21/2013	5:54
AOC-12-2/3.5-4	09197-009	09/21/2013	6:24
AOC-6/18.5-19	09197-010	09/21/2013	6:55
B-17	09247-001	09/21/2013	7:25
B-18	09247-002	09/21/2013	7:55
B-19B	09247-004	09/21/2013	8:25
B-22	09247-005	09/21/2013	8:56
B-24	09247-007	09/21/2013	9:57
HF-1/2-2.5	08859-001	09/21/2013	10:26
HF-2/4-4.5	08859-002	09/21/2013	10:57
BES-AST-5	08859-026	09/21/2013	11:27
NJ130109/2.5	09219-001	09/21/2013	11:58

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J9168.D

BFB Injection Date: 09/10/2013

Inst ID: MSD_J

BFB Injection Time: 9:05

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.8			
75	30.0 - 60.0% of mass 95	49.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	80.1			
175	5.0 - 9.0% of mass 174	6.5	(	8.1	)1
176	95.0 - 101.0% of mass 174	76.7	(	95.8	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC5	ICC5	J9171.D	09/10/2013	10:35
ICC2	ICC2	J9172.D	09/10/2013	11:20
ICC1	ICC1	J9173.D	09/10/2013	11:56
ICC20	ICC20	J9174.D	09/10/2013	13:02
ICC100	ICC100	J9175.D	09/10/2013	13:29
ICC150	ICC150	J9176.D	09/10/2013	13:55
ICC200	ICC200	J9177.D	09/10/2013	14:22
ICV100	ICV100	J9180.D	09/10/2013	16:26

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J9355.D

BFB Injection Date: 09/20/2013

Inst ID: MSD_J

BFB Injection Time: 9:55

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	22.5			
75	30.0 - 60.0% of mass 95	48.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	67.7			
175	5.0 - 9.0% of mass 174	5.3	(	7.9	)1
176	95.0 - 101.0% of mass 174	68.3	(	100.9	)1
177	5.0 - 9.0% of mass 176	4.6	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	J9356.D	09/20/2013	10:22
BLKS130920	BLKS130920	J9358.D	09/20/2013	11:14
NAP-2	09267-002	J9359.D	09/20/2013	11:40
SR-9-B-1RR	09216-007	J9363.D	09/20/2013	13:27
LCS-50PPB	LCSS130920	J9366.D	09/20/2013	14:47
MS	09267-002MS	J9367.D	09/20/2013	15:14
MSD	09267-002MSD	J9368.D	09/20/2013	15:41
B-19A	09247-003	J9371.D	09/20/2013	17:01
B-25	09247-008	J9372.D	09/20/2013	17:28
AOC-7-2/11-11.	09197-004	J9374.D	09/20/2013	18:22

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F7094.D

BFB Injection Date: 08/23/2013

Inst ID: MSD_F

BFB Injection Time: 11:01

m/z	Ion Abudance Criteria	Fail	%Relative Abundance			
50	15 - 40.0% of mass 95		29.6			
75	30.0 - 60.0% of mass 95		54.1			
95	Base peak, 100% relative abundance		100.0			
96	5.0 - 9.0% of mass 95		6.5			
173	Less than 2.0% of mass 174		0.0	(	0.0	)1
174	Great than 50.0% of mass 95		65.8			
175	5.0 - 9.0% of mass 174		5.0	(	7.6	)1
176	95.0 - 101.0% of mass 174	Fail	62.2	(	94.5	)1
177	5.0 - 9.0% of mass 176		4.0	(	6.5	)2
	1-Value is % mass 174	2-Value is % mass 176				

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICV1	ICV1	F7095.D	08/23/2013	11:36
ICC2	ICC2	F7096.D	08/23/2013	12:37
ICC5	ICC5	F7097.D	08/23/2013	13:07
ICC20	ICC20	F7098.D	08/23/2013	13:37
ICC100	ICC100	F7099.D	08/23/2013	14:07
ICC150	ICC150	F7100.D	08/23/2013	14:37
ICC200	ICC200	F7101.D	08/23/2013	15:08
ICV100	ICV100	F7102.D	08/23/2013	15:39

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F7747.D

BFB Injection Date: 09/21/2013

Inst ID: MSD_F

BFB Injection Time: 0:20

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	27.6			
75	30.0 - 60.0% of mass 95	59.1			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.5			
173	Less than 2.0% of mass 174	1.0	(	1.5	)1
174	Great than 50.0% of mass 95	65.6			
175	5.0 - 9.0% of mass 174	5.4	(	8.2	)1
176	95.0 - 101.0% of mass 174	62.4	(	95.1	)1
177	5.0 - 9.0% of mass 176	3.9	(	6.3	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	F7748.D	09/21/2013	0:50
BLKS130920-02	BLKS130920-02	F7751.D	09/21/2013	2:21
LCS-50PPB	LCSS130920-02	F7752.D	09/21/2013	2:51
MS	09219-001MS	F7753.D	09/21/2013	3:22
MSD	09219-001MSD	F7754.D	09/21/2013	3:52
AOC-5-1/9-9.5	09197-001	F7755.D	09/21/2013	4:23
AOC-5-2/7.5-8	09197-002	F7756.D	09/21/2013	4:53
AOC-7-3/9.5-10	09197-005	F7757.D	09/21/2013	5:23
AOC-8/12.5-13	09197-007	F7758.D	09/21/2013	5:54
AOC-12-2/3.5-4	09197-009	F7759.D	09/21/2013	6:24
AOC-6/18.5-19	09197-010	F7760.D	09/21/2013	6:55
B-17	09247-001	F7761.D	09/21/2013	7:25
B-18	09247-002	F7762.D	09/21/2013	7:55
B-19B	09247-004	F7763.D	09/21/2013	8:25
B-22	09247-005	F7764.D	09/21/2013	8:56
B-24	09247-007	F7766.D	09/21/2013	9:57
HF-1/2-2.5	08859-001	F7767.D	09/21/2013	10:26
HF-2/4-4.5	08859-002	F7768.D	09/21/2013	10:57
BES-AST-5	08859-026	F7769.D	09/21/2013	11:27
NJ130109/2.5	09219-001	F7770.D	09/21/2013	11:58

E13-09197 0103

Response Factor Report MSD_J

Method Path : C:\MSDCHEM\1\METHODS\
Method File : JM091013.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Wed Sep 11 10:10:11 2013
Response Via : Initial Calibration

Calibration Files
1 =J9173.D 2 =J9172.D 5 =J9171.D
20 =J9174.D 100 =J9175.D 200 =J9177.D 150 =J9176.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.307	0.283	0.302	0.362	0.358	0.357	0.323	0.327	9.76
3)	P	Chloromethane	0.720	0.774	0.841	0.826	0.881	0.867	0.874	0.826	7.16
4)	C	Vinyl chloride	0.748	0.645	0.686	0.786	0.852	0.819	0.834	0.767	10.15
5)	T	Bromomethane	0.464	0.471	0.520	0.492	0.518	0.438	0.506	0.487	6.34
6)	T	Chloroethane	0.484	0.505	0.540	0.556	0.592	0.571	0.576	0.546	7.23
7)	T	Trichlorofluorome	0.602	0.662	0.587	0.752	0.827	0.693	0.770	0.699	12.73
8)	T	Acrolein	0.047	0.053	0.059	0.051	0.056	0.055	0.054	0.053	7.13
9)	MC	1,1-Dichloroethen	0.558	0.532	0.513	0.627	0.684	0.633	0.654	0.600	10.93
10)	T	Acetone		0.288	0.231	0.271	0.261	0.257	0.240	0.258	8.00
11)	T	Carbon disulfide	2.249	2.023	2.109	2.283	2.520	2.390	2.482	2.294	8.07
12)	T	Vinyl acetate	1.827	1.875	1.965	1.904	1.885	1.357	1.590	1.772	12.33
13)	T	Methylene chlorid		1.051	0.990	0.875	0.945	0.927	0.928	0.953	6.36
14)	T	Acrylonitrile	0.360	0.549	0.457	0.388	0.427	0.419	0.416	0.431	14.04
15)	T	tert-Butyl alcoho	0.092	0.118	0.139	0.136	0.145	0.143	0.141	0.130	14.83
16)	T	trans-1,2-Dichlor	0.831	0.843	0.892	0.888	0.959	0.922	0.928	0.895	5.16
17)	T	Methyl tert-butyl	2.500	3.463	3.538	3.137	3.438	3.322	3.336	3.248	10.89
18)	P	1,1-Dichloroethan	1.552	1.754	1.942	1.836	2.003	1.967	1.997	1.864	8.86
19)	T	Diisopropyl ether	3.399	4.427	4.797	4.347	4.727	4.534	4.556	4.398	10.63
20)	T	cis-1,2-Dichloroe	0.883	0.988	1.098	1.011	1.114	1.096	1.108	1.043	8.30
21)	T	2,2-Dichloropropa	0.798	0.748	0.852	0.851	0.866	0.757	0.837	0.816	5.90
22)	T	2-Butanone (MEK)	0.313	0.396	0.430	0.455	0.489	0.501	0.471	0.436	14.92
23)	T	Bromochloromethan	0.339	0.475	0.515	0.476	0.530	0.527	0.529	0.484	14.15
25)	C	Chloroform	1.473	1.633	1.767	1.633	1.785	1.757	1.778	1.689	6.87
26)	T	1,1,1-Trichloroet	0.962	0.933	1.050	1.201	1.290	1.246	1.290	1.139	13.54
27)	T	Carbon tetrachlor	0.825	0.787	0.794	0.988	1.098	1.026	1.067	0.941	14.33
28)	T	1,1-Dichloroprope	1.076	0.912	0.964	1.135	1.234	1.172	1.213	1.101	11.24
29)	T	1,2-Dichloroethan	1.091	1.448	1.558	1.384	1.503	1.437	1.451	1.410	10.71
30)	S	1,2-Dichloroethan	0.584	0.580	0.576	0.557	0.545	0.531	0.537	0.559	3.90
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.975	2.257	2.422	2.322	2.519	2.464	2.484	2.349	8.06
33)	M	Trichloroethene	0.439	0.449	0.488	0.531	0.588	0.608	0.603	0.529	13.66
34)	C	1,2-Dichloropropa	0.482	0.619	0.662	0.627	0.685	0.682	0.679	0.634	11.39
35)	T	Dibromomethane	0.241	0.357	0.376	0.347	0.376	0.375	0.370	0.349	13.99
36)	T	1,4-Dioxane	0.008	0.009	0.009	0.008	0.007	0.008	0.006	0.008	14.39
37)	T	Bromodichlorometh	0.538	0.735	0.751	0.725	0.831	0.836	0.829	0.749	13.98
38)	T	2-Chloroethyl vin	0.283	0.327	0.341	0.372	0.415	0.425	0.392	0.365	13.98
39)	T	cis-1,3-Dichlorop	0.887	0.902	0.970	0.945	1.070	1.073	1.050	0.985	8.03
40)	T	4-Methyl-2-pentan	0.421	0.571	0.622	0.620	0.675	0.679	0.647	0.605	14.75
41)	S	Toluene-d8	1.343	1.341	1.369	1.391	1.389	1.394	1.368	1.371	1.63
42)	MC	Toluene	1.102	1.245	1.354	1.350	1.457	1.453	1.431	1.342	9.66
43)	T	trans-1,3-Dichlor	0.613	0.795	0.856	0.870	0.961	0.981	0.930	0.858	14.67
44)	T	1,1,2-Trichloroet	0.301	0.420	0.429	0.420	0.452	0.460	0.437	0.417	12.78
45)	T	Tetrachloroethene	0.377	0.381	0.402	0.471	0.502	0.489	0.485	0.444	12.37
46)	T	1,3-Dichloropropa	0.605	0.874	0.937	0.893	0.969	0.977	0.927	0.883	14.50
47)	T	2-Hexanone	0.270	0.250	0.304	0.338	0.351	0.388	0.327	0.318	14.92
48)	T	Dibromochlorometh	0.476	0.483	0.506	0.510	0.603	0.616	0.591	0.541	11.12
49)	T	1,2-Dibromoethane	0.446	0.482	0.504	0.502	0.563	0.569	0.539	0.515	8.67
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	0.860	1.029	1.097	1.010	1.106	1.105	1.111	1.045	8.74
52)	T	1,1,1,2-Tetrachlo	0.313	0.349	0.380	0.356	0.403	0.399	0.410	0.373	9.48

53)	C	Ethylbenzene	1.334	1.472	1.594	1.623	1.770	1.762	1.783	1.620	10.51
54)	T	m,p-Xylene	0.505	0.587	0.616	0.629	0.675	0.658	0.669	0.620	9.61
55)	T	o-Xylene	0.532	0.590	0.675	0.643	0.693	0.671	0.695	0.643	9.43
56)	T	Styrene	0.959	0.937	1.091	1.067	1.240	1.212	1.217	1.103	11.30
57)	P	Bromoform	0.166	0.232	0.255	0.254	0.271	0.240	0.266	0.241	14.79
58)	T	Isopropylbenzene	1.129	1.209	1.254	1.390	1.516	1.487	1.529	1.359	11.91
59)	S	Bromofluorobenzen	0.815	0.799	0.807	0.803	0.788	0.796	0.783	0.799	1.35
60)	P	1,1,2,2-Tetrachlo	0.382	0.503	0.540	0.472	0.505	0.473	0.487	0.480	10.26
61)	T	Bromobenzene	0.341	0.454	0.463	0.422	0.465	0.467	0.460	0.439	10.41
62)	T	1,2,3-Trichloropr	0.429	0.464	0.501	0.438	0.465	0.461	0.461	0.460	4.97
63)	T	n-Propylbenzene	1.236	1.342	1.397	1.459	1.582	1.557	1.585	1.451	9.23
64)	T	2-Chlorotoluene	0.931	1.070	1.144	1.049	1.148	1.146	1.150	1.091	7.52
65)	T	1,3,5-Trimethylbe	0.900	1.064	1.129	1.148	1.254	1.235	1.269	1.143	11.42
66)	T	4-Chlorotoluene	1.057	1.274	1.355	1.247	1.334	1.330	1.322	1.274	8.06
67)	T	tert-Butylbenzene	0.638	0.696	0.710	0.784	0.861	0.855	0.880	0.775	12.26
68)	T	1,2,4-Trimethylbe	0.975	1.172	1.247	1.221	1.328	1.324	1.336	1.229	10.41
69)	T	sec-Butylbenzene	0.914	1.006	1.046	1.152	1.253	1.227	1.263	1.123	12.13
70)	T	1,3-Dichlorobenze	0.600	0.752	0.771	0.699	0.753	0.760	0.757	0.727	8.37
71)	T	4-Isopropyltoluen	0.788	0.850	0.906	0.975	1.064	1.067	1.084	0.962	12.20
72)	T	1,4-Dichlorobenze	0.619	0.831	0.843	0.734	0.796	0.805	0.796	0.775	9.94
73)	T	n-Butylbenzene	0.395	0.435	0.433	0.458	0.495	0.492	0.497	0.458	8.52
74)	T	1,2-Dichlorobenze	0.608	0.825	0.800	0.719	0.771	0.782	0.779	0.755	9.61
75)	T	1,2-Dibromo-3-chl		0.089	0.084	0.074	0.099	0.089	0.085	0.087	9.30
76)	T	1,2,4-Trichlorobe	0.387	0.368	0.342	0.312	0.416	0.398	0.440	0.380	11.46
77)	T	Hexachlorobutadie		0.174	0.169	0.149	0.170	0.178	0.186	0.171	7.21
78)	T	Naphthalene	1.094	1.197	1.141	1.209	1.243	1.372	1.334	1.227	8.08
79)	T	1,2,3-Trichlorobe	0.279	0.342	0.313	0.300	0.338	0.372	0.361	0.329	10.15
80)	T	1,1,2-Trichloro-1	0.173	0.153	0.148	0.193	0.208	0.161	0.193	0.176	13.02
81)	T	Methyl acetate	0.331	0.279	0.290	0.298	0.319	0.312	0.315	0.306	5.98
82)	T	Cyclohexane	0.427	0.434	0.336	0.468	0.485	0.388	0.456	0.428	11.97
83)	T	Methylcyclohexane	0.299	0.261	0.237	0.284	0.313	0.244	0.291	0.276	10.38

(#) = Out of Range ### Number of calibration levels exceeded format ###

JM091013.M Mon Sep 23 15:04:21 2013 RT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\09-10-13\
Data File : J9180.D
Acq On : 10 Sep 2013 16:26
Operator : MEI
Sample : ICV100,ICV100,A,5ml,100
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 11 10:16:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 11 10:10:11 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	94	0.00
2	T	Dichlorodifluoromethane	0.327	0.387	-18.3	101	-0.01
3	P	Chloromethane	0.826	0.876	-6.1	93	0.00
4	C	Vinyl chloride	0.767	0.875	-14.1	96	0.00
5	T	Bromomethane	0.487	0.526	-8.0	95	0.00
6	T	Chloroethane	0.546	0.606	-11.0	96	0.00
7	T	Trichlorofluoromethane	0.699	0.813	-16.3	92	0.00
8	T	Acrolein	0.053	0.053	0.0	90	-0.01
9	MC	1,1-Dichloroethene	0.600	0.694	-15.7	95	0.00
10	T	Acetone	0.258	0.250	3.1	90	0.00
11	T	Carbon disulfide	2.294	2.554	-11.3	95	0.00
12	T	Vinyl acetate	1.772	1.474	16.8	73	0.00
13	T	Methylene chloride	0.953	0.931	2.3	92	0.00
14	T	Acrylonitrile	0.431	0.437	-1.4	96	0.00
15	T	tert-Butyl alcohol (TBA)	0.130	0.143	-10.0	92	-0.01
16	T	trans-1,2-Dichloroethene	0.895	0.961	-7.4	94	0.00
17	T	Methyl tert-butyl ether (MT	3.248	3.359	-3.4	92	0.00
18	P	1,1-Dichloroethane	1.864	1.975	-6.0	92	0.00
19	T	Diisopropyl ether (DIPE)	4.398	4.591	-4.4	91	0.00
20	T	cis-1,2-Dichloroethene	1.043	1.103	-5.8	93	0.00
21	T	2,2-Dichloropropane	0.816	0.892	-9.3	97	0.00
22	T	2-Butanone (MEK)	0.436	0.499	-14.4	96	0.00
23	T	Bromochloromethane	0.484	0.528	-9.1	93	0.00
25	C	Chloroform	1.689	1.763	-4.4	93	0.00
26	T	1,1,1-Trichloroethane	1.139	1.305	-14.6	95	0.00
27	T	Carbon tetrachloride	0.941	1.108	-17.7	95	-0.01
28	T	1,1-Dichloropropene	1.101	1.249	-13.4	95	0.00
29	T	1,2-Dichloroethane (EDC)	1.410	1.474	-4.5	92	0.00
30	S	1,2-Dichloroethane-d4	0.559	0.541	3.2	93	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00
32	M	Benzene	2.349	2.488	-5.9	93	-0.01
33	M	Trichloroethene	0.529	0.550	-4.0	88	0.00
34	C	1,2-Dichloropropane	0.634	0.679	-7.1	93	0.00
35	T	Dibromomethane	0.349	0.374	-7.2	94	0.00
36	T	1,4-Dioxane	0.008	0.008	0.0	101	0.00
37	T	Bromodichloromethane	0.749	0.818	-9.2	93	0.00
38	T	2-Chloroethyl vinyl ether	0.365	0.419	-14.8	95	0.00
39	T	cis-1,3-Dichloropropene	0.985	1.076	-9.2	95	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.605	0.673	-11.2	94	0.00
41	S	Toluene-d8	1.371	1.393	-1.6	94	0.00
42	MC	Toluene	1.342	1.456	-8.5	94	0.00
43	T	trans-1,3-Dichloropropene	0.858	0.978	-14.0	96	0.00
44	T	1,1,2-Trichloroethane	0.417	0.453	-8.6	94	0.00
45	T	Tetrachloroethene	0.444	0.513	-15.5	96	0.00
46	T	1,3-Dichloropropane	0.883	0.972	-10.1	94	0.00

47	T	2-Hexanone	0.318	0.379	-19.2	102	0.00
48	T	Dibromochloromethane	0.541	0.604	-11.6	94	0.00
49	T	1,2-Dibromoethane (EDB)	0.515	0.562	-9.1	94	-0.01
50	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
51	MP	Chlorobenzene	1.045	1.089	-4.2	94	0.00
52	T	1,1,1,2-Tetrachloroethane	0.373	0.393	-5.4	94	0.00
53	C	Ethylbenzene	1.620	1.760	-8.6	95	0.00
54	T	m,p-Xylene	0.620	0.670	-8.1	95	0.00
55	T	o-Xylene	0.643	0.685	-6.5	95	0.00
56	T	Styrene	1.103	1.208	-9.5	94	0.00
57	P	Bromoform	0.241	0.288	-19.5	102	0.00
58	T	Isopropylbenzene	1.359	1.500	-10.4	95	0.00
59	S	Bromofluorobenzene	0.799	0.793	0.8	96	0.00
60	P	1,1,2,2-Tetrachloroethane	0.480	0.523	-9.0	99	0.00
61	T	Bromobenzene	0.439	0.457	-4.1	94	0.00
62	T	1,2,3-Trichloropropane	0.460	0.456	0.9	94	0.00
63	T	n-Propylbenzene	1.451	1.576	-8.6	96	0.00
64	T	2-Chlorotoluene	1.091	1.132	-3.8	95	0.00
65	T	1,3,5-Trimethylbenzene	1.143	1.248	-9.2	95	0.00
66	T	4-Chlorotoluene	1.274	1.317	-3.4	95	0.00
67	T	tert-Butylbenzene	0.775	0.845	-9.0	94	0.00
68	T	1,2,4-Trimethylbenzene	1.229	1.300	-5.8	94	0.00
69	T	sec-Butylbenzene	1.123	1.238	-10.2	95	0.00
70	T	1,3-Dichlorobenzene	0.727	0.745	-2.5	95	0.00
71	T	4-Isopropyltoluene	0.962	1.053	-9.5	95	0.00
72	T	1,4-Dichlorobenzene	0.775	0.785	-1.3	95	0.00
73	T	n-Butylbenzene	0.458	0.493	-7.6	96	0.00
74	T	1,2-Dichlorobenzene	0.755	0.760	-0.7	95	0.00
75	T	1,2-Dibromo-3-chloropropane	0.087	0.091	-4.6	89	0.00
76	T	1,2,4-Trichlorobenzene	0.380	0.410	-7.9	95	0.01
77	T	Hexachlorobutadiene	0.171	0.174	-1.8	98	0.00
78	T	Naphthalene	1.227	1.180	3.8	91	0.00
79	T	1,2,3-Trichlorobenzene	0.329	0.334	-1.5	95	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.176	0.205	-16.5	95	0.00
81	T	Methyl acetate	0.306	0.289	5.6	87	0.00
82	T	Cyclohexane	0.428	0.474	-10.7	94	0.00
83	T	Methylcyclohexane	0.276	0.304	-10.1	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

JM091013.M Wed Sep 11 10:16:06 2013 RT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9356.D
Acq On : 20 Sep 2013 10:22
Operator : MEI
Sample : CCV100,CCV100,A,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 20 13:59:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 11 10:10:11 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	141	0.00
2	T	Dichlorodifluoromethane	0.327	0.299	8.6	118	0.00
3	P	Chloromethane	0.826	0.687	16.8	110	0.00
4	C	Vinyl chloride	0.767	0.658	14.2	109	0.00
5	T	Bromomethane	0.487	0.448	8.0	122	-0.01
6	T	Chloroethane	0.546	0.471	13.7	112	0.00
7	T	Trichlorofluoromethane	0.699	0.655	6.3	112	0.00
8	T	Acrolein	0.053	0.044	17.0	113	-0.01
9	MC	1,1-Dichloroethene	0.600	0.544	9.3	112	-0.01
10	T	Acetone	0.258	0.289	-12.0	156	-0.01
11	T	Carbon disulfide	2.294	1.874	18.3	105	-0.01
12	T	Vinyl acetate	1.772	1.982	-11.9	149	0.00
13	T	Methylene chloride	0.953	0.774	18.8	116	0.00
14	T	Acrylonitrile	0.431	0.492	-14.2	163	0.00
15	T	tert-Butyl alcohol (TBA)	0.130	0.126	3.1	123	-0.01
16	T	trans-1,2-Dichloroethene	0.895	0.747	16.5	110	0.00
17	T	Methyl tert-butyl ether (MT	3.248	2.637	18.8	108	0.00
18	P	1,1-Dichloroethane	1.864	1.684	9.7	119	0.00
19	T	Diisopropyl ether (DIPE)	4.398	4.672	-6.2	140	0.00
20	T	cis-1,2-Dichloroethene	1.043	0.861	17.4	109	0.00
21	T	2,2-Dichloropropane	0.816	0.775	5.0	126	0.00
22	T	2-Butanone (MEK)	0.436	0.486	-11.5	141	0.00
23	T	Bromochloromethane	0.484	0.416	14.0	111	0.00
25	C	Chloroform	1.689	1.384	18.1	110	0.00
26	T	1,1,1-Trichloroethane	1.139	1.077	5.4	118	0.00
27	T	Carbon tetrachloride	0.941	0.916	2.7	118	-0.01
28	T	1,1-Dichloropropene	1.101	1.016	7.7	116	0.00
29	T	1,2-Dichloroethane (EDC)	1.410	1.305	7.4	123	0.00
30	S	1,2-Dichloroethane-d4	0.559	0.660	-18.1	171	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	138	0.00
32	M	Benzene	2.349	1.974	16.0	108	-0.01
33	M	Trichloroethene	0.529	0.452	14.6	106	0.00
34	C	1,2-Dichloropropane	0.634	0.604	4.7	122	0.00
35	T	Dibromomethane	0.349	0.306	12.3	112	0.00
36	T	1,4-Dioxane	0.008	0.008	0.0	148	0.00
37	T	Bromodichloromethane	0.749	0.665	11.2	111	0.00
38	T	2-Chloroethyl vinyl ether	0.365	0.357	2.2	119	0.00
39	T	cis-1,3-Dichloropropene	0.985	0.858	12.9	111	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.605	0.725	-19.8	148	-0.01
41	S	Toluene-d8	1.371	1.299	5.3	129	0.00
42	MC	Toluene	1.342	1.202	10.4	114	0.00
43	T	trans-1,3-Dichloropropene	0.858	0.787	8.3	113	0.00
44	T	1,1,2-Trichloroethane	0.417	0.370	11.3	113	0.00
45	T	Tetrachloroethene	0.444	0.397	10.6	109	0.00
46	T	1,3-Dichloropropane	0.883	0.799	9.5	114	0.00

47	T	2-Hexanone	0.318	0.378	-18.9	149	0.00
48	T	Dibromochloromethane	0.541	0.497	8.1	114	0.00
49	T	1,2-Dibromoethane (EDB)	0.515	0.452	12.2	111	-0.01
50	I	Chlorobenzene-d5	1.000	1.000	0.0	117	0.00
51	MP	Chlorobenzene	1.045	1.066	-2.0	113	0.00
52	T	1,1,1,2-Tetrachloroethane	0.373	0.378	-1.3	110	0.00
53	C	Ethylbenzene	1.620	1.751	-8.1	116	0.00
54	T	m,p-Xylene	0.620	0.666	-7.4	116	0.00
55	T	o-Xylene	0.643	0.668	-3.9	113	0.00
56	T	Styrene	1.103	1.178	-6.8	112	0.00
57	P	Bromoform	0.241	0.254	-5.4	110	0.00
58	T	Isopropylbenzene	1.359	1.461	-7.5	113	0.00
59	S	Bromofluorobenzene	0.799	0.700	12.4	104	0.00
60	P	1,1,2,2-Tetrachloroethane	0.480	0.507	-5.6	118	0.00
61	T	Bromobenzene	0.439	0.419	4.6	106	0.00
62	T	1,2,3-Trichloropropane	0.460	0.443	3.7	112	-0.01
63	T	n-Propylbenzene	1.451	1.582	-9.0	117	0.00
64	T	2-Chlorotoluene	1.091	1.094	-0.3	112	0.00
65	T	1,3,5-Trimethylbenzene	1.143	1.201	-5.1	112	0.00
66	T	4-Chlorotoluene	1.274	1.306	-2.5	115	0.00
67	T	tert-Butylbenzene	0.775	0.828	-6.8	113	0.00
68	T	1,2,4-Trimethylbenzene	1.229	1.251	-1.8	111	0.00
69	T	sec-Butylbenzene	1.123	1.224	-9.0	115	0.00
70	T	1,3-Dichlorobenzene	0.727	0.684	5.9	106	0.00
71	T	4-Isopropyltoluene	0.962	1.054	-9.6	116	0.00
72	T	1,4-Dichlorobenzene	0.775	0.717	7.5	106	0.00
73	T	n-Butylbenzene	0.458	0.506	-10.5	120	0.00
74	T	1,2-Dichlorobenzene	0.755	0.693	8.2	106	0.00
75	T	1,2-Dibromo-3-chloropropane	0.087	0.085	2.3	101	0.00
76	T	1,2,4-Trichlorobenzene	0.380	0.328	13.7	92	0.00
78	T	Naphthalene	1.227	1.031	16.0	97	0.00
79	T	1,2,3-Trichlorobenzene	0.329	0.289	12.2	100	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.176	0.207	-17.6	117	0.00
81	T	Methyl acetate	0.306	0.361	-18.0	133	0.00
82	T	Cyclohexane	0.428	0.464	-8.4	112	0.00
83	T	Methylcyclohexane	0.276	0.320	-15.9	120	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

JM091013.M Fri Sep 20 13:59:38 2013 RT1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J9175.D

Date Analyzed: 09/10/2013

Instrument ID: MSD_J

Time Analyzed: 13:29

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	129195	6.09	219151	6.91	310332	10.25
	UPPER LIMIT	258390	6.59	438302	7.41	620664	10.75
	LOWER LIMIT	64597.5	5.59	109575.5	6.41	155166	9.75
	LAB SAMPLE ID						
01	ICC5	122493	6.09	205777	6.91	282424	10.25
02	ICC2	121112	6.09	203077	6.91	275574	10.25
03	ICC1	125887	6.09	211092	6.91	286279	10.25
04	ICC20	129773	6.09	217547	6.91	309536	10.25
05	ICC150	130074	6.09	220256	6.91	305150	10.25
06	ICC200	125632	6.09	212743	6.91	305793	10.25
07	ICV100	121117	6.09	206056	6.91	297803	10.25
08							
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21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Response Factor Report MSD_F

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Mon Aug 26 16:00:01 2013
Response Via : Initial Calibration

Calibration Files
1 =F7095.D 2 =F7096.D 5 =F7097.D
20 =F7098.D 100 =F7099.D 200 =F7101.D 150 =F7100.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	1.125	1.318	1.170	0.985	1.022	0.927	0.984	1.076	12.69
3)	P	Chloromethane	0.709	0.926	0.735	0.707	0.737	0.654	0.691	0.737	11.93
4)	C	Vinyl chloride	0.728	1.066	0.901	0.842	0.883	0.782	0.839	0.863	12.41
5)	T	Bromomethane	0.551	0.739	0.696	0.661	0.691	0.536	0.626	0.643	11.82
6)	T	Chloroethane	0.456	0.686	0.564	0.519	0.551	0.493	0.534	0.543	13.43
7)	T	Trichlorofluorome	1.601	1.729	1.894	1.728	1.694	1.437	1.531	1.659	9.05
8)	T	Acrolein	0.060	0.075	0.062	0.062	0.072	0.056	0.060	0.064	10.88
9)	MC	1,1-Dichloroethen	1.031	1.116	0.853	0.829	0.828	0.774	0.788	0.888	14.82
10)	T	Acetone			0.370	0.438	0.392	0.379	0.347	0.385	8.73
11)	T	Carbon disulfide	2.087	3.115	2.612	2.573	2.708	2.452	2.542	2.584	11.87
12)	T	Vinyl acetate	1.692	2.592	2.273	2.340	2.666	2.162	2.335	2.294	13.91
13)	T	Methylene chlorid		1.361	1.013	1.037	1.035	1.006	0.975	1.071	13.42
14)	T	Acrylonitrile	0.195	0.201	0.183	0.183	0.210	0.181	0.190	0.192	5.69
15)	T	tert-Butyl alcoho		0.134	0.145	0.119	0.123	0.097	0.105	0.120	14.82
16)	T	trans-1,2-Dichlor	0.589	0.719	0.597	0.570	0.581	0.576	0.575	0.601	8.77
17)	T	Methyl tert-butyl	2.443	2.826	2.487	2.401	2.534	2.402	2.397	2.498	6.13
18)	P	1,1-Dichloroethan	1.052	1.406	1.197	1.179	1.251	1.163	1.155	1.200	9.06
19)	T	Diisopropyl ether	1.919	2.459	2.257	2.353	2.542	2.433	2.419	2.340	8.79
20)	T	cis-1,2-Dichloroe	0.506	0.649	0.559	0.537	0.577	0.587	0.560	0.568	7.87
21)	T	2,2-Dichloropropa	1.104	1.211	1.122	1.093	1.180	0.978	1.052	1.106	7.03
22)	T	2-Butanone (MEK)		0.408	0.464	0.404	0.413	0.349	0.363	0.400	10.18
23)	T	Bromochloromethan	0.269	0.283	0.211	0.214	0.224	0.226	0.220	0.235	12.22
25)	C	Chloroform	1.412	1.817	1.483	1.533	1.552	1.448	1.446	1.527	8.97
26)	T	1,1,1-Trichloroet	1.239	1.857	1.629	1.552	1.691	1.515	1.557	1.577	11.95
27)	T	Carbon tetrachlor	1.139	1.508	1.335	1.338	1.543	1.401	1.437	1.386	9.69
28)	T	1,1-Dichloroprope	0.909	1.252	0.970	0.948	1.060	1.025	1.022	1.027	10.89
29)	T	1,2-Dichloroethan	1.693	2.104	1.771	1.659	1.694	1.487	1.563	1.710	11.53
30)	S	1,2-Dichloroethan	1.538	1.341	1.336	1.311	1.239	1.088	1.148	1.286	11.46
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.337	2.099	1.777	1.799	2.003	2.071	1.995	1.869	14.23
33)	M	Trichloroethene	0.712	0.682	0.573	0.568	0.631	0.633	0.619	0.631	8.39
34)	C	1,2-Dichloropropa	0.407	0.495	0.432	0.417	0.465	0.466	0.453	0.448	6.94
35)	T	Dibromomethane	0.375	0.434	0.394	0.378	0.389	0.363	0.373	0.387	6.04
36)	T	1,4-Dioxane	0.004	0.004	0.004	0.004	0.005	0.004	0.004	0.004	9.75
37)	T	Bromodichlorometh	0.768	1.047	0.920	0.969	1.075	1.031	1.053	0.980	11.02
38)	T	2-Chloroethyl vin	0.195	0.251	0.201	0.190	0.238	0.228	0.231	0.219	10.79
39)	T	cis-1,3-Dichlorop	0.646	0.818	0.748	0.825	0.951	0.917	0.931	0.834	13.25
40)	T	4-Methyl-2-pentan	0.498	0.543	0.525	0.548	0.622	0.547	0.571	0.551	7.03
41)	S	Toluene-d8	1.606	1.556	1.585	1.577	1.598	1.535	1.605	1.580	1.68
42)	MC	Toluene	1.001	1.360	1.174	1.151	1.325	1.326	1.309	1.235	10.62
43)	T	trans-1,3-Dichlor	0.717	0.943	0.850	0.929	1.109	1.009	1.051	0.944	13.91
44)	T	1,1,2-Trichloroet	0.248	0.351	0.305	0.298	0.333	0.322	0.323	0.312	10.55
45)	T	Tetrachloroethene	0.653	0.713	0.576	0.526	0.597	0.573	0.585	0.603	10.15
46)	T	1,3-Dichloropropa	0.673	0.768	0.698	0.735	0.833	0.791	0.803	0.757	7.69
47)	T	2-Hexanone	0.572	0.548	0.548	0.562	0.618	0.533	0.560	0.563	4.87
48)	T	Dibromochlorometh	0.442	0.473	0.466	0.511	0.609	0.580	0.592	0.525	12.95
49)	T	1,2-Dibromoethane	0.373	0.443	0.402	0.369	0.442	0.417	0.414	0.408	7.27
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.460	1.707	1.298	1.304	1.434	1.469	1.439	1.444	9.43
52)	T	1,1,1,2-Tetrachlo	0.426	0.608	0.534	0.547	0.615	0.623	0.620	0.567	11.74

53)	C	Ethylbenzene	2.374	3.237	2.771	2.846	3.326	3.377	3.300	3.033	12.44
54)	T	m,p-Xylene	1.024	1.076	1.251	0.929	1.140	1.212	1.157	1.113	10.04
55)	T	o-Xylene	1.011	0.951	0.851	0.867	1.070	1.126	1.085	0.995	10.85
56)	T	Styrene	1.574	1.645	1.436	1.525	1.895	2.025	1.910	1.716	13.15
57)	P	Bromoform	0.298	0.351	0.309	0.349	0.432	0.434	0.425	0.371	15.80
58)	T	Isopropylbenzene	2.841	2.920	2.616	2.886	3.383	3.430	3.370	3.064	10.60
59)	S	Bromofluorobenzen	0.915	0.933	0.942	0.967	0.937	0.896	0.917	0.930	2.47
60)	P	1,1,2,2-Tetrachlo	0.434	0.642	0.514	0.528	0.625	0.591	0.590	0.561	13.00
61)	T	Bromobenzene	0.632	0.725	0.538	0.611	0.689	0.710	0.674	0.654	9.97
62)	T	1,2,3-Trichloropr	0.807	0.914	0.794	0.770	0.818	0.748	0.761	0.802	6.93
63)	T	n-Propylbenzene	2.931	4.095	3.317	3.530	4.049	4.044	3.960	3.704	12.23
64)	T	2-Chlorotoluene	2.004	2.694	2.274	2.358	2.656	2.607	2.571	2.452	10.25
65)	T	1,3,5-Trimethylbe	2.503	3.018	2.650	2.875	3.335	3.347	3.300	3.004	11.44
66)	T	4-Chlorotoluene	2.682	2.694	2.274	2.358	2.656	2.607	2.571	2.549	6.53
67)	T	tert-Butylbenzene	1.984	2.116	1.798	1.915	2.267	2.367	2.299	2.107	10.20
68)	T	1,2,4-Trimethylbe	2.378	3.233	2.702	2.964	3.355	3.322	3.232	3.027	12.14
69)	T	sec-Butylbenzene	2.893	3.644	3.032	3.152	3.644	3.726	3.623	3.388	10.28
70)	T	1,3-Dichlorobenze	1.309	1.510	1.211	1.217	1.366	1.383	1.331	1.332	7.75
71)	T	4-Isopropyltoluen	2.495	2.879	2.394	2.609	3.020	3.061	2.971	2.775	9.78
72)	T	1,4-Dichlorobenze	1.351	1.532	1.162	1.246	1.410	1.422	1.378	1.357	8.94
73)	T	n-Butylbenzene	1.414	1.589	1.369	1.500	1.762	1.797	1.741	1.596	10.95
74)	T	1,2-Dichlorobenze	1.220	1.523	1.111	1.213	1.377	1.413	1.354	1.316	10.71
75)	T	1,2-Dibromo-3-chl	0.206	0.202	0.181	0.202	0.228	0.200	0.203	0.203	6.86
76)	T	1,2,4-Trichlorobe	1.017	1.116	0.838	0.946	1.069	1.044	1.025	1.008	9.04
77)	T	Hexachlorobutadie	0.775	1.027	0.782	0.813	0.810	0.789	0.797	0.828	10.78
78)	T	Naphthalene	1.662	1.717	1.488	1.813	1.992	1.992	1.936	1.800	10.53
79)	T	1,2,3-Trichlorobe	1.130	1.053	0.862	0.901	0.926	0.911	0.901	0.955	10.26
80)	T	1,1,2-Trichloro-1	0.789	0.922	0.877	0.749	0.690	0.658	0.662	0.764	13.71
81)	T	Methyl acetate	0.506	0.510	0.486	0.457	0.433	0.405	0.416	0.459	9.29
82)	T	Cyclohexane			0.755	0.855	0.794	0.817	0.790	0.802	4.63
83)	T	Methylcyclohexane			0.780	0.780	0.815	0.837	0.800	0.803	3.02

(#) = Out of Range ### Number of calibration levels exceeded format ###

FSO0823.M Mon Aug 26 16:00:09 2013 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\08-23-13\
Data File : F7102.D
Acq On : 23 Aug 2013 15:39
Operator : XING
Sample : ICV100,ICV100,S,5g,0
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 26 16:03:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Aug 26 16:00:01 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	103	0.01
2	T	Dichlorodifluoromethane	1.076	1.130	-5.0	114	0.00
3	P	Chloromethane	0.737	0.694	5.8	97	0.01
4	C	Vinyl chloride	0.863	0.713	17.4	83	0.00
5	T	Bromomethane	0.643	0.611	5.0	91	0.00
6	T	Chloroethane	0.543	0.483	11.0	90	0.00
7	T	Trichlorofluoromethane	1.659	1.526	8.0	93	-0.01
8	T	Acrolein	0.064	0.060	6.3	86	0.01
9	MC	1,1-Dichloroethene	0.888	0.729	17.9	90	0.01
10	T	Acetone	0.385	0.364	5.5	95	0.00
11	T	Carbon disulfide	2.584	2.393	7.4	91	0.00
12	T	Vinyl acetate	2.294	2.658	-15.9	102	0.00
13	T	Methylene chloride	1.071	0.872	18.6	87	0.00
14	T	Acrylonitrile	0.192	0.201	-4.7	98	0.00
15	T	tert-Butyl alcohol (TBA)	0.120	0.120	0.0	100	-0.01
16	T	trans-1,2-Dichloroethene	0.601	0.554	7.8	98	0.00
17	T	Methyl tert-butyl ether (MT	2.498	2.485	0.5	101	0.00
18	P	1,1-Dichloroethane	1.200	1.183	1.4	97	0.00
19	T	Diisopropyl ether (DIPE)	2.340	2.470	-5.6	100	0.00
20	T	cis-1,2-Dichloroethene	0.568	0.562	1.1	100	0.00
21	T	2,2-Dichloropropane	1.106	1.064	3.8	93	0.00
22	T	2-Butanone (MEK)	0.400	0.378	5.5	94	0.00
23	T	Bromochloromethane	0.235	0.219	6.8	100	0.00
25	C	Chloroform	1.527	1.524	0.2	101	0.00
26	T	1,1,1-Trichloroethane	1.577	1.591	-0.9	97	0.00
27	T	Carbon tetrachloride	1.386	1.452	-4.8	97	0.00
28	T	1,1-Dichloropropene	1.027	1.017	1.0	99	0.01
29	T	1,2-Dichloroethane (EDC)	1.710	1.682	1.6	102	0.00
30	S	1,2-Dichloroethane-d4	1.286	1.241	3.5	103	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	103	0.00
32	M	Benzene	1.869	1.943	-4.0	100	0.00
33	M	Trichloroethene	0.631	0.618	2.1	101	0.00
34	C	1,2-Dichloropropane	0.448	0.459	-2.5	102	0.00
35	T	Dibromomethane	0.387	0.395	-2.1	104	0.00
36	T	1,4-Dioxane	0.004	0.004	0.0	79	0.00
37	T	Bromodichloromethane	0.980	1.094	-11.6	104	0.00
38	T	2-Chloroethyl vinyl ether	0.219	0.237	-8.2	102	0.00
39	T	cis-1,3-Dichloropropene	0.834	0.953	-14.3	103	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.551	0.612	-11.1	101	0.00
41	S	Toluene-d8	1.580	1.608	-1.8	103	0.00
42	MC	Toluene	1.235	1.305	-5.7	101	0.00
43	T	trans-1,3-Dichloropropene	0.944	1.091	-15.6	101	0.00
44	T	1,1,2-Trichloroethane	0.312	0.337	-8.0	104	0.00
45	T	Tetrachloroethene	0.603	0.586	2.8	101	0.00
46	T	1,3-Dichloropropane	0.757	0.836	-10.4	103	0.00

47	T	2-Hexanone	0.563	0.566	-0.5	94	0.00
48	T	Dibromochloromethane	0.525	0.615	-17.1	104	0.00
49	T	1,2-Dibromoethane (EDB)	0.408	0.436	-6.9	101	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
51	MP	Chlorobenzene	1.444	1.395	3.4	100	0.00
52	T	1,1,1,2-Tetrachloroethane	0.567	0.608	-7.2	101	0.00
53	C	Ethylbenzene	3.033	3.243	-6.9	100	0.00
54	T	m,p-Xylene	1.113	1.124	-1.0	101	0.00
55	T	o-Xylene	0.995	1.058	-6.3	101	0.00
56	T	Styrene	1.716	1.852	-7.9	100	0.00
57	P	Bromoform	0.371	0.429	-15.6	102	0.00
58	T	Isopropylbenzene	3.064	3.257	-6.3	99	0.00
59	S	Bromofluorobenzene	0.930	0.957	-2.9	105	0.00
60	P	1,1,2,2-Tetrachloroethane	0.561	0.607	-8.2	100	0.00
61	T	Bromobenzene	0.654	0.682	-4.3	101	0.00
62	T	1,2,3-Trichloropropane	0.802	0.796	0.7	100	0.00
63	T	n-Propylbenzene	3.704	3.910	-5.6	99	0.00
64	T	2-Chlorotoluene	2.452	2.566	-4.6	99	0.00
65	T	1,3,5-Trimethylbenzene	3.004	3.241	-7.9	100	0.00
66	T	4-Chlorotoluene	2.549	2.566	-0.7	99	-0.13
67	T	tert-Butylbenzene	2.107	2.210	-4.9	100	0.00
68	T	1,2,4-Trimethylbenzene	3.027	3.217	-6.3	98	0.00
69	T	sec-Butylbenzene	3.388	3.507	-3.5	99	0.00
70	T	1,3-Dichlorobenzene	1.332	1.334	-0.2	100	0.00
71	T	4-Isopropyltoluene	2.775	2.900	-4.5	98	0.00
72	T	1,4-Dichlorobenzene	1.357	1.380	-1.7	100	0.00
73	T	n-Butylbenzene	1.596	1.719	-7.7	100	0.00
74	T	1,2-Dichlorobenzene	1.316	1.334	-1.4	99	0.00
75	T	1,2-Dibromo-3-chloropropane	0.203	0.216	-6.4	97	0.00
76	T	1,2,4-Trichlorobenzene	1.008	0.980	2.8	94	0.00
77	T	Hexachlorobutadiene	0.828	0.746	9.9	94	0.00
78	T	Naphthalene	1.800	1.759	2.3	90	0.00
79	T	1,2,3-Trichlorobenzene	0.955	0.840	12.0	93	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.764	0.630	17.5	94	0.00
81	T	Methyl acetate	0.459	0.433	5.7	102	-0.01
82	T	Cyclohexane	0.802	0.707	11.8	91	0.00
83	T	Methylcyclohexane	0.803	0.729	9.2	92	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0823.M Mon Aug 26 16:04:03 2013 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7748.D
Acq On : 21 Sep 2013 00:50
Operator : XING
Sample : CCV100,CCV100,S,5g,0
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 23 10:30:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	152	0.01
2	T	Dichlorodifluoromethane	1.076	1.226	-13.9	182	0.00
3	P	Chloromethane	0.737	0.742	-0.7	153	0.00
4	C	Vinyl chloride	0.863	0.879	-1.9	151	0.00
5	T	Bromomethane	0.643	0.601	6.5	133	0.00
6	T	Chloroethane	0.543	0.550	-1.3	152	0.00
7	T	Trichlorofluoromethane	1.659	1.670	-0.7	150	-0.01
8	T	Acrolein	0.064	0.075	-17.2	158	0.00
9	MC	1,1-Dichloroethene	0.888	0.854	3.8	157	0.01
10	T	Acetone	0.385	0.324	15.8	126	0.00
11	T	Carbon disulfide	2.584	2.901	-12.3	163	0.01
12	T	Vinyl acetate	2.294	2.161	5.8	123	0.01
13	T	Methylene chloride	1.071	0.952	11.1	140	0.00
14	T	Acrylonitrile	0.192	0.222	-15.6	160	0.00
15	T	tert-Butyl alcohol (TBA)	0.120	0.119	0.8	148	0.00
16	T	trans-1,2-Dichloroethene	0.601	0.581	3.3	152	0.00
17	T	Methyl tert-butyl ether (MT	2.498	2.225	10.9	134	0.00
18	P	1,1-Dichloroethane	1.200	1.262	-5.2	154	0.00
19	T	Diisopropyl ether (DIPE)	2.340	2.777	-18.7	166	0.00
20	T	cis-1,2-Dichloroethene	0.568	0.605	-6.5	160	0.00
21	T	2,2-Dichloropropane	1.106	1.087	1.7	140	0.00
22	T	2-Butanone (MEK)	0.400	0.325	18.8	120	0.00
23	T	Bromochloromethane	0.235	0.228	3.0	155	0.00
25	C	Chloroform	1.527	1.560	-2.2	153	0.00
26	T	1,1,1-Trichloroethane	1.577	1.626	-3.1	146	0.00
27	T	Carbon tetrachloride	1.386	1.507	-8.7	149	0.00
28	T	1,1-Dichloropropene	1.027	1.137	-10.7	163	0.01
29	T	1,2-Dichloroethane (EDC)	1.710	1.636	4.3	147	0.00
30	S	1,2-Dichloroethane-d4	1.286	1.153	10.3	142	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	171	0.00
32	M	Benzene	1.869	2.019	-8.0	172	0.00
33	M	Trichloroethene	0.631	0.606	4.0	164	0.00
34	C	1,2-Dichloropropane	0.448	0.487	-8.7	179	0.00
35	T	Dibromomethane	0.387	0.339	12.4	149	0.00
36	T	1,4-Dioxane	0.004	0.004	0.0	144	0.00
37	T	Bromodichloromethane	0.980	0.973	0.7	155	0.00
38	T	2-Chloroethyl vinyl ether	0.219	0.196	10.5	141	0.00
39	T	cis-1,3-Dichloropropene	0.834	0.889	-6.6	160	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.551	0.504	8.5	139	0.00
41	S	Toluene-d8	1.580	1.557	1.5	167	0.00
42	MC	Toluene	1.235	1.326	-7.4	171	0.00
43	T	trans-1,3-Dichloropropene	0.944	0.937	0.7	144	0.00
44	T	1,1,2-Trichloroethane	0.312	0.325	-4.2	167	-0.01
45	T	Tetrachloroethene	0.603	0.559	7.3	160	-0.01
46	T	1,3-Dichloropropane	0.757	0.804	-6.2	165	0.00

47	T	2-Hexanone	0.563	0.481	14.6	133	0.00
48	T	Dibromochloromethane	0.525	0.536	-2.1	151	0.00
49	T	1,2-Dibromoethane (EDB)	0.408	0.391	4.2	151	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	172	0.00
51	MP	Chlorobenzene	1.444	1.369	5.2	164	0.00
52	T	1,1,1,2-Tetrachloroethane	0.567	0.571	-0.7	160	-0.01
53	C	Ethylbenzene	3.033	3.127	-3.1	162	0.00
54	T	m,p-Xylene	1.113	1.058	4.9	160	-0.01
55	T	o-Xylene	0.995	1.013	-1.8	163	0.00
56	T	Styrene	1.716	1.747	-1.8	159	0.00
57	P	Bromoform	0.371	0.360	3.0	144	0.00
58	T	Isopropylbenzene	3.064	3.230	-5.4	164	0.00
59	S	Bromofluorobenzene	0.930	0.873	6.1	160	0.00
60	P	1,1,2,2-Tetrachloroethane	0.561	0.532	5.2	146	0.00
61	T	Bromobenzene	0.654	0.626	4.3	156	0.00
62	T	1,2,3-Trichloropropane	0.802	0.709	11.6	149	0.00
63	T	n-Propylbenzene	3.704	3.833	-3.5	163	0.00
64	T	2-Chlorotoluene	2.452	2.492	-1.6	161	0.00
65	T	1,3,5-Trimethylbenzene	3.004	3.056	-1.7	158	0.00
66	T	4-Chlorotoluene	2.549	2.492	2.2	161	-0.13
67	T	tert-Butylbenzene	2.107	2.218	-5.3	168	0.00
68	T	1,2,4-Trimethylbenzene	3.027	3.052	-0.8	157	-0.01
69	T	sec-Butylbenzene	3.388	3.656	-7.9	173	0.00
70	T	1,3-Dichlorobenzene	1.332	1.244	6.6	157	0.00
71	T	4-Isopropyltoluene	2.775	2.810	-1.3	160	0.00
72	T	1,4-Dichlorobenzene	1.357	1.259	7.2	154	0.00
73	T	n-Butylbenzene	1.596	1.632	-2.3	159	-0.01
74	T	1,2-Dichlorobenzene	1.316	1.249	5.1	156	0.00
75	T	1,2-Dibromo-3-chloropropane	0.203	0.166	18.2	125	0.00
76	T	1,2,4-Trichlorobenzene	1.008	0.828	17.9	133	0.00
77	T	Hexachlorobutadiene	0.828	0.692	16.4	147	0.00
78	T	Naphthalene	1.800	1.672	7.1	144	0.00
79	T	1,2,3-Trichlorobenzene	0.955	0.771	19.3	143	-0.01
80	T	1,1,2-Trichloro-1,2,2-trifl	0.764	0.658	13.9	164	0.00
81	T	Methyl acetate	0.459	0.386	15.9	153	0.00
82	T	Cyclohexane	0.802	0.856	-6.7	185	0.00
83	T	Methylcyclohexane	0.803	0.915	-13.9	193	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0823.M Mon Sep 23 10:30:37 2013 RP1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J9356.D

Date Analyzed: 09/20/2013

Instrument ID: MSD_J

Time Analyzed: 10:22

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	182583		6.09		302802		6.91		364175		10.25	
	UPPER LIMIT	365166		6.59		605604		7.41		728350		10.75	
	LOWER LIMIT	91291.5		5.59		151401		6.41		182087.5		9.75	
	LAB SAMPLE ID												
01	BLKS130920	177074		6.09		298100		6.91		355715		10.25	
02	09267-002	178006		6.08		296854		6.90		349251		10.25	
03	09216-007	180277		6.08		301442		6.90		356277		10.25	
04	LCSS130920	183431		6.09		305205		6.91		366690		10.25	
05	09267-002MS	188089		6.09		311735		6.91		367017		10.25	
06	09267-002MSD	185098		6.09		307388		6.91		369964		10.25	
07	09247-003	183768		6.08		307948		6.91		362536		10.25	
08	09247-008	194442		6.08		323120		6.91		383396		10.25	
09	09197-004	177845		6.08		302125		6.90		350589		10.25	
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F7099.D

Date Analyzed: 08/23/2013

Instrument ID: MSD_F

Time Analyzed: 14:07

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	402954		6.07		442389		6.89		446555		10.24	
	UPPER LIMIT	805908		6.57		884778		7.39		893110		10.74	
	LOWER LIMIT	201477		5.57		221194.5		6.39		223277.5		9.74	
	LAB SAMPLE ID												
01	ICV1	312997		6.07		394142		6.89		371906		10.24	
02	ICC2	360750		6.08		411510		6.89		380521		10.24	
03	ICC5	356234		6.08		403392		6.89		384073		10.24	
04	ICC20	365297		6.08		399806		6.89		389972		10.24	
05	ICC150	461854		6.07		497496		6.89		486076		10.24	
06	ICC200	508076		6.07		553314		6.89		528425		10.24	
07	ICV100	414123		6.08		454205		6.89		457575		10.24	
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F7748.D

Date Analyzed: 09/21/2013

Instrument ID: MSD_F

Time Analyzed: 0:50

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	613318	6.08	756384	6.89	768205	10.24
	UPPER LIMIT	1226636	6.58	1512768	7.39	1536410	10.74
	LOWER LIMIT	306659	5.58	378192	6.39	384102.5	9.74
	LAB SAMPLE ID						
01	BLKS130920-02	575982	6.08	750779	6.89	691120	10.24
02	LCSS130920-02	634498	6.08	785134	6.89	788526	10.24
03	09219-001MS	729653	6.07	903025	6.89	884430	10.24
04	09219-001MSD	766903	6.08	947359	6.89	889792	10.24
05	09197-001	706985	6.08	900585	6.89	800690	10.24
06	09197-002	599931	6.08	781839	6.89	697721	10.24
07	09197-005	543412	6.08	728963	6.89	658499	10.24
08	09197-007	550072	6.08	717426	6.89	664349	10.24
09	09197-009	518711	6.08	683809	6.89	627877	10.24
10	09197-010	504988	6.08	678130	6.89	632415	10.24
11	09247-001	506940	6.08	670649	6.89	639093	10.24
12	09247-002	498185	6.08	655144	6.89	624663	10.24
13	09247-004	521382	6.08	695906	6.89	682824	10.24
14	09247-005	579459	6.08	784152	6.89	804429	10.24
15	09247-007	1027888	6.08	1339747	6.89	1236654	10.24
16	08859-001	1026197	6.08	1344047	6.89	1228901	10.24
17	08859-002	480955	6.08	654213	6.90	617646	10.24
18	08859-026	942915	6.08	1236591	6.89	1103778	10.24
19	09219-001	784429	6.08	1004944	6.89	861305	10.24
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7755.D
Acq On : 21 Sep 2013 4:23
Operator : XING
Sample : AOC-5-1/9-9.5,09197-001,S,4.3g,16.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 23 10:38:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	706985	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	900585	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	800690	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	789032	43.39	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 86.78%			
41) Toluene-d8	8.563	98	1217140	42.76	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 85.52%			
59) Bromofluorobenzene	11.639	95	618788	41.57	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 83.14%			

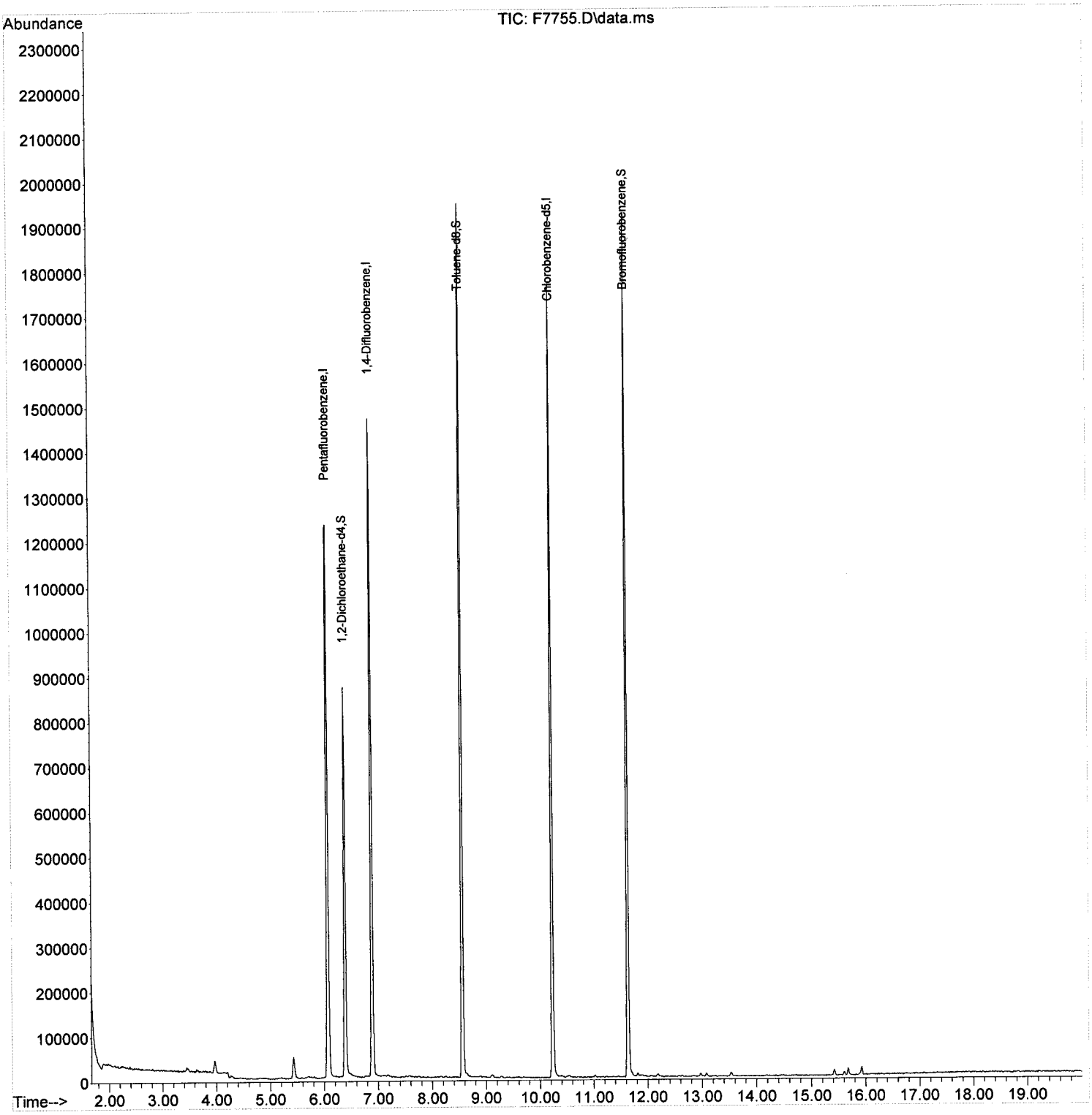
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7755.D
Acq On : 21 Sep 2013 4:23
Operator : XING
Sample : AOC-5-1/9-9.5,09197-001,S,4.3g,16.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 23 10:38:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7755.D
Acq On : 21 Sep 2013 4:23
Operator : XING
Sample : AOC-5-1/9-9.5,09197-001,S,4.3g,16.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 33 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7755.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.894	19	23	27	rBV4	11063	42014	1.16%	0.235%
2	3.965	223	227	235	rVB	26750	62859	1.73%	0.352%
3	5.426	361	371	382	rBV	47658	136633	3.76%	0.766%
4	6.076	418	435	448	rBV	1231416	2715692	74.71%	15.222%
5	6.391	460	466	488	rVB	867611	1840555	50.63%	10.317%
6	6.888	509	515	529	rVB	1462329	2808822	77.27%	15.744%
7	8.563	673	680	696	rBV	1942276	3635126	100.00%	20.376%
8	10.228	837	844	855	rBV	1764960	3303153	90.87%	18.515%
9	11.639	977	983	995	rBV	1911439	3252008	89.46%	18.228%
10	15.923	1397	1405	1410	rBV4	18661	43615	1.20%	0.244%

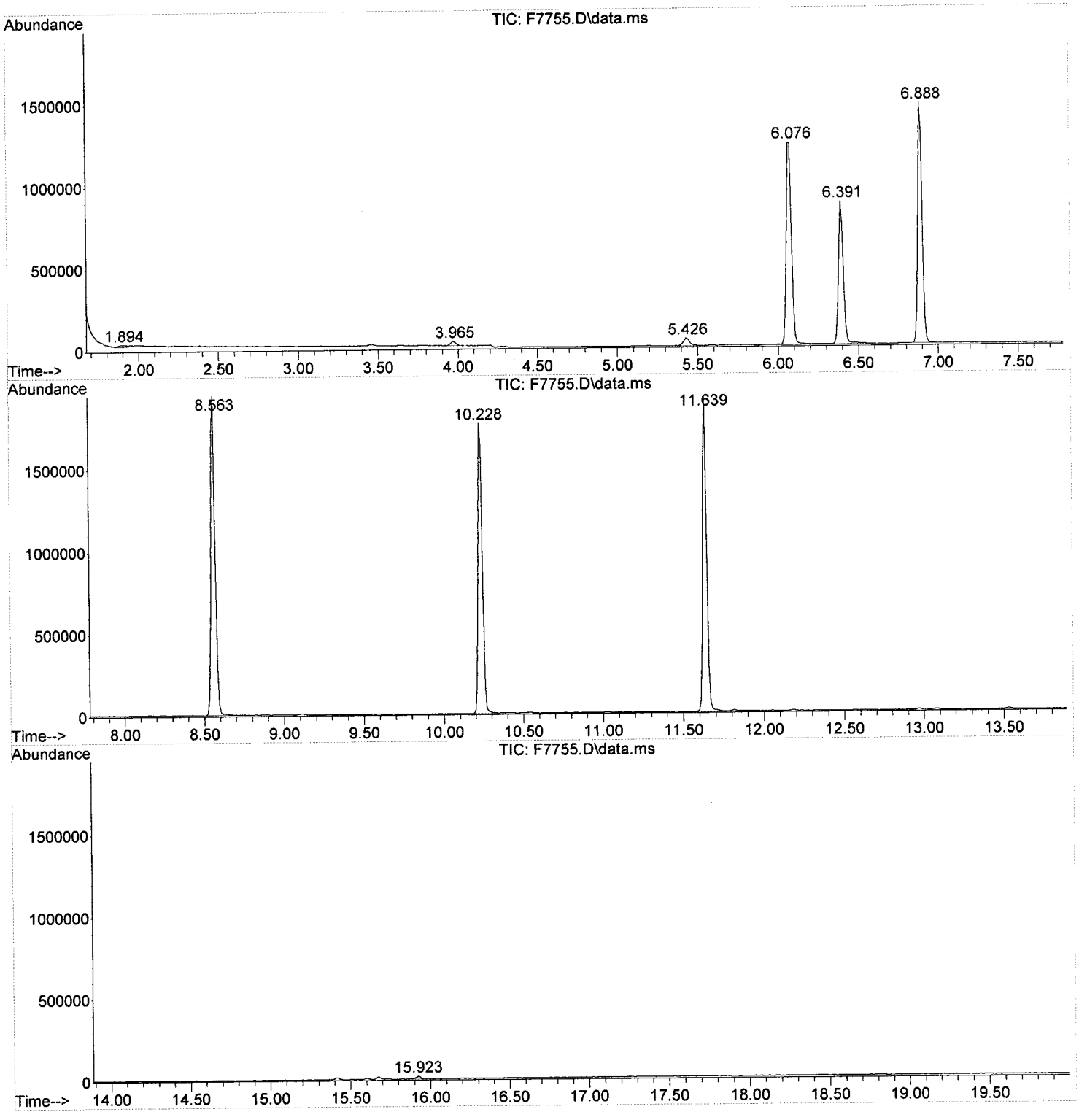
Sum of corrected areas: 17840477

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7755.D
Acq On : 21 Sep 2013 4:23
Operator : XING
Sample : AOC-5-1/9-9.5,09197-001,S,4.3g,16.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7756.D
Acq On : 21 Sep 2013 4:53
Operator : XING
Sample : AOC-5-2/7.5-8,09197-002,S,4.4g,17.3
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 23 10:39:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

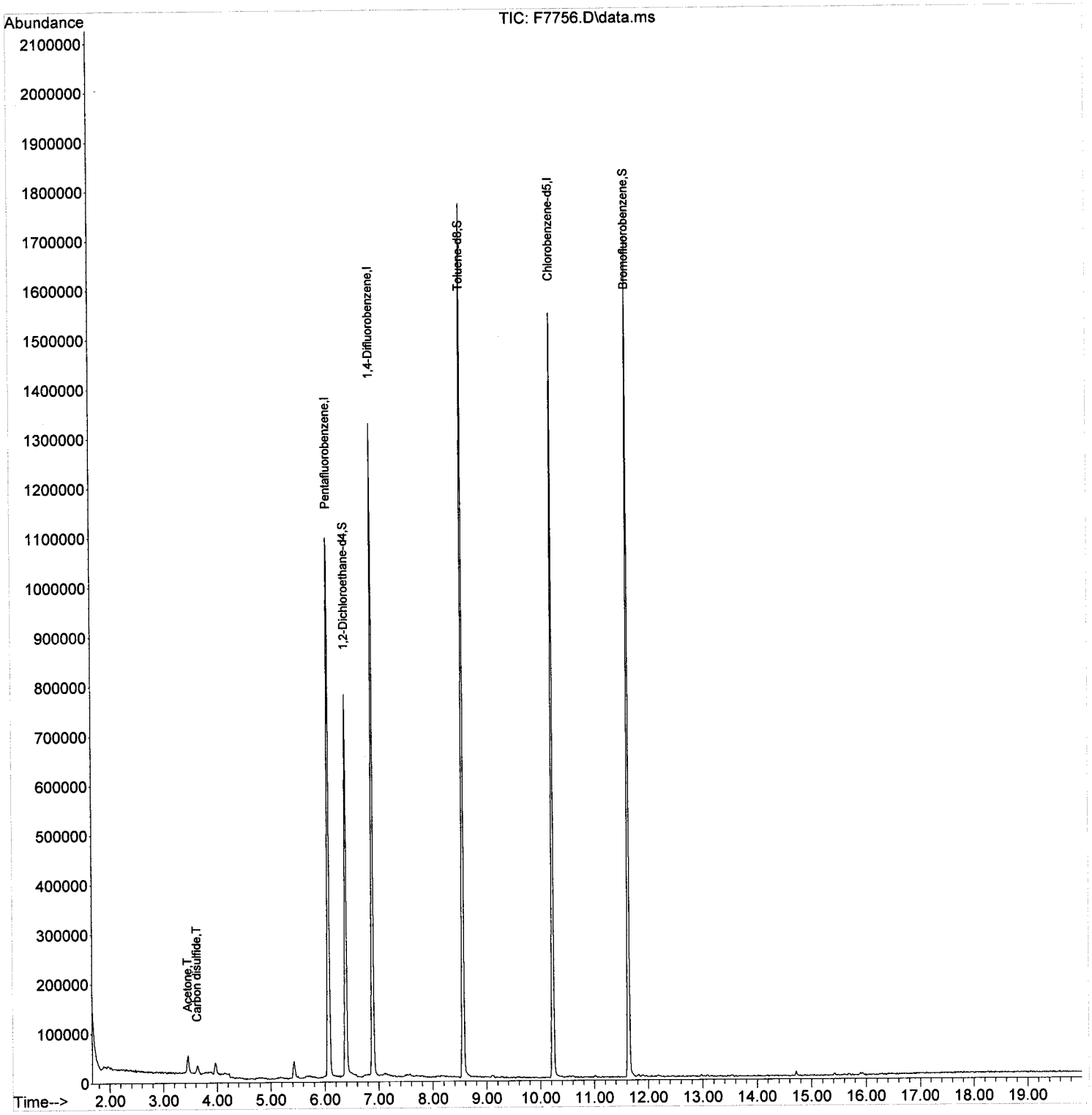
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	599931	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	781839	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	697721	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	693305	44.93	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 89.86%			
41) Toluene-d8	8.563	98	1082118	43.79	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 87.58%			
59) Bromofluorobenzene	11.639	95	546363	42.12	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 84.24%			
Target Compounds						Qvalue
10) Acetone	3.457	43	57626	12.47	UG	98
11) Carbon disulfide	3.629	76	25719	0.83	UG	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7756.D
Acq On : 21 Sep 2013 4:53
Operator : XING
Sample : AOC-5-2/7.5-8,09197-002,S,4.4g,17.3
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 23 10:39:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7756.D
Acq On : 21 Sep 2013 4:53
Operator : XING
Sample : AOC-5-2/7.5-8,09197-002,S,4.4g,17.3
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7756.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.457	172	177	185	rVB	34790	84441	2.57%	0.529%
2	3.629	190	194	202	rVB	16184	46480	1.42%	0.291%
3	3.964	223	227	237	rVB2	23915	68245	2.08%	0.428%
4	5.426	365	371	382	rVB	33854	94589	2.88%	0.593%
5	6.066	423	434	448	rBV	1090320	2368461	72.15%	14.844%
6	6.391	455	466	487	rBV	773503	1647969	50.20%	10.329%
7	6.888	509	515	527	rVB	1317499	2507576	76.38%	15.716%
8	8.563	674	680	696	rBV	1765248	3282820	100.00%	20.575%
9	10.228	838	844	859	rBV	1544249	2962256	90.24%	18.566%
10	11.639	977	983	996	rBV	1697804	2892595	88.11%	18.129%

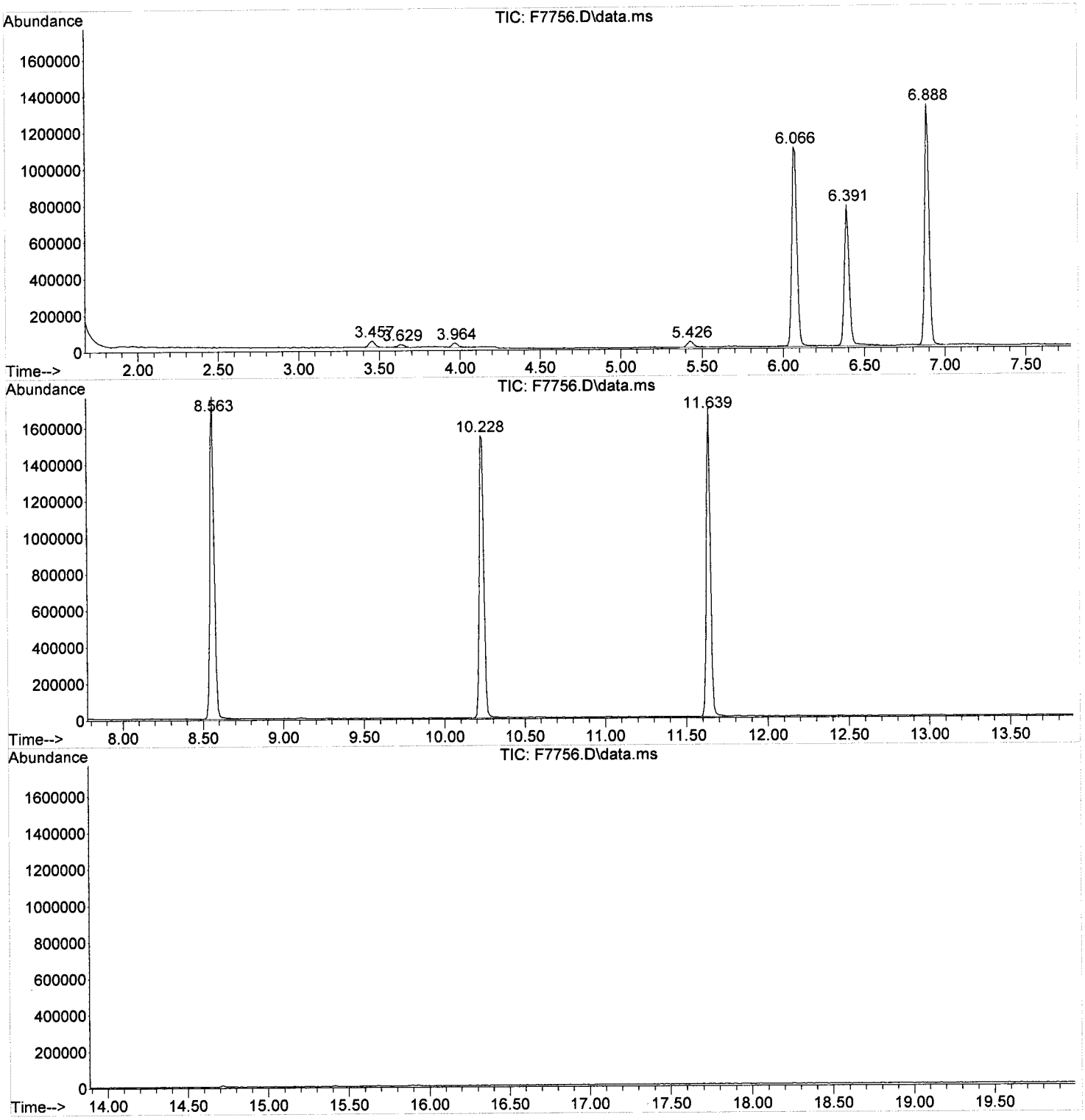
Sum of corrected areas: 15955432

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7756.D
Acq On : 21 Sep 2013 4:53
Operator : XING
Sample : AOC-5-2/7.5-8,09197-002,S,4.4g,17.3
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



E13-09197 0128

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 23 14:18:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 11 10:10:11 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.08	168	177845	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.90	114	302125	50.00	UG	-0.01
50) Chlorobenzene-d5	10.25	117	350589	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.40	65	122592	61.69	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 123.38%			
41) Toluene-d8	8.58	98	380976	46.00	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 92.00%			
59) Bromofluorobenzene	11.65	95	243509	43.48	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 86.96%			

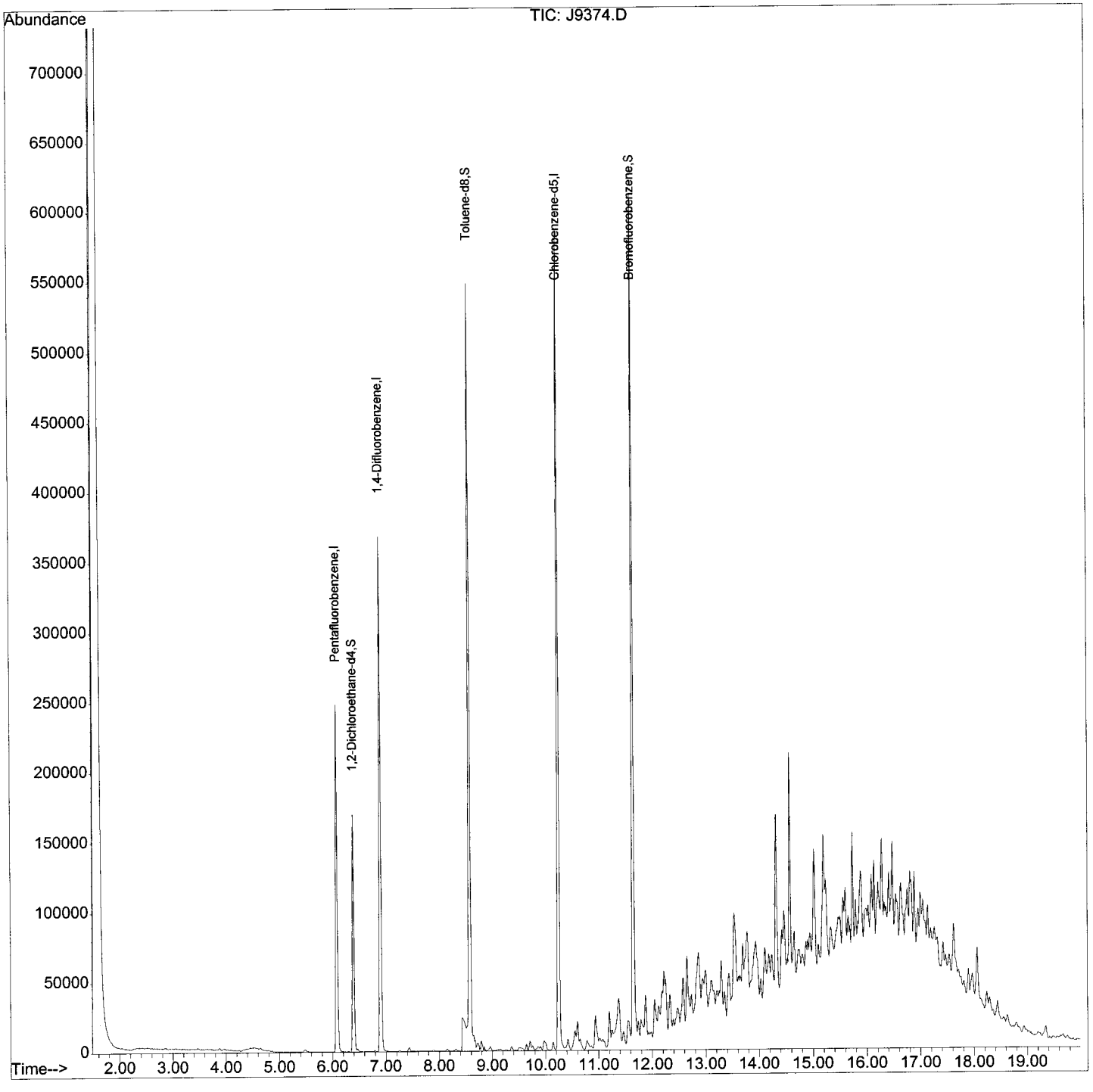
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 23 14:18:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 11 10:10:11 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM091013.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.082	448	455	470	rBB	247962	523196	45.42%	4.983%
2	6.396	481	486	492	rBB	168823	342577	29.74%	3.263%
3	6.903	529	536	554	rBB	367745	730088	63.37%	6.954%
4	8.442	686	688	695	rBB	20411	68560	5.95%	0.653%
5	8.584	695	702	713	rBB	537259	1045766	90.78%	9.961%
6	8.796	719	723	727	rBB3	6471	13919	1.21%	0.133%
7	9.971	835	839	848	rBB3	6311	22124	1.92%	0.211%
8	10.254	860	867	877	rBB	585733	1126728	97.80%	10.732%
9	10.416	877	883	889	rBB4	6872	15564	1.35%	0.148%
10	10.558	892	897	899	rBB2	6217	17217	1.49%	0.164%
11	10.599	899	901	904	rBB3	12311	19583	1.70%	0.187%
12	10.781	914	919	925	rBB4	5655	15711	1.36%	0.150%
13	10.943	930	935	940	rBB3	20740	54705	4.75%	0.521%
14	11.196	956	960	963	rBB	21693	40809	3.54%	0.389%
15	11.378	968	978	983	rBB5	28730	104117	9.04%	0.992%
16	11.470	983	987	991	rBB5	7843	16852	1.46%	0.161%
17	11.551	991	995	1000	rBB4	14281	41757	3.62%	0.398%
18	11.652	1000	1005	1012	rBB	599661	1152015	100.00%	10.973%
19	11.743	1012	1014	1017	rBB2	9052	11976	1.04%	0.114%
20	11.794	1017	1019	1024	rBB3	9949	21006	1.82%	0.200%
21	11.875	1024	1027	1031	rBB4	25356	50085	4.35%	0.477%
22	12.047	1040	1044	1049	rBB4	21898	54733	4.75%	0.521%
23	12.118	1049	1051	1054	rBB3	9189	16471	1.43%	0.157%
24	12.219	1054	1061	1068	rBB5	36759	168687	14.64%	1.607%
25	12.330	1068	1072	1076	rBB3	24555	56674	4.92%	0.540%
26	12.472	1080	1086	1090	rBB6	11501	36531	3.17%	0.348%
27	12.583	1090	1097	1100	rBB5	31248	84169	7.31%	0.802%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM091013.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

28	12.654	1100	1104	1109	rBB3	42383	95785	8.31%	0.912%
29	12.735	1109	1112	1114	rBB2	11679	15361	1.33%	0.146%
30	12.867	1115	1125	1129	rBB7	36034	147105	12.77%	1.401%
31	12.948	1130	1133	1135	rBB4	8003	20960	1.82%	0.200%
32	12.999	1135	1138	1142	rBB4	17327	35302	3.06%	0.336%
33	13.110	1142	1149	1156	rBB10	18321	82605	7.17%	0.787%
34	13.211	1156	1159	1161	rBB3	6666	13325	1.16%	0.127%
35	13.292	1161	1167	1170	rBB4	29711	58786	5.10%	0.560%
36	13.353	1170	1173	1176	rBB3	13889	20664	1.79%	0.197%
37	13.434	1176	1181	1185	rBB4	24194	71137	6.18%	0.678%
38	13.535	1187	1191	1197	rBB5	55767	173155	15.03%	1.649%
39	13.697	1204	1207	1209	rBB	22338	35522	3.08%	0.338%
40	13.778	1209	1215	1219	rBB6	35557	103612	8.99%	0.987%
41	13.940	1219	1231	1237	rBB9	36806	197225	17.12%	1.879%
42	14.031	1237	1240	1243	rBB2	12797	17447	1.51%	0.166%
43	14.113	1243	1248	1251	rBB5	25291	68374	5.94%	0.651%
44	14.183	1251	1255	1258	rBB5	13906	27767	2.41%	0.264%
45	14.234	1258	1260	1265	rBB5	14361	29228	2.54%	0.278%
46	14.325	1265	1269	1274	rBB2	121093	266730	23.15%	2.541%
47	14.426	1276	1279	1281	rBB2	17922	42198	3.66%	0.402%
48	14.467	1281	1283	1287	rBB3	26679	41570	3.61%	0.396%
49	14.568	1287	1293	1298	rBB2	150874	272631	23.67%	2.597%
50	14.659	1298	1302	1304	rBB4	26903	46869	4.07%	0.446%
51	14.730	1305	1309	1314	rBB6	14256	43479	3.77%	0.414%
52	14.801	1314	1316	1320	rBB4	7190	16230	1.41%	0.155%
53	14.872	1320	1323	1325	rBB3	10923	20199	1.75%	0.192%
54	14.943	1328	1330	1333	rBB3	12604	20178	1.75%	0.192%
55	15.024	1333	1338	1343	rBB5	78096	183492	15.93%	1.748%
56	15.095	1343	1345	1349	rBB3	13056	23435	2.03%	0.223%
57	15.196	1349	1355	1365	rBB9	87820	343906	29.85%	3.276%
58	15.328	1365	1368	1374	rBB6	19604	55475	4.82%	0.528%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM091013.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

59	15.500	1374	1385	1388	rBB10	20936	107694	9.35%	1.026%
60	15.561	1388	1391	1393	rBB3	19469	39713	3.45%	0.378%
61	15.601	1393	1395	1397	rBB3	24911	27022	2.35%	0.257%
62	15.652	1398	1400	1405	rBB3	16147	37030	3.21%	0.353%
63	15.733	1405	1408	1411	rBB3	77087	124133	10.78%	1.182%
64	15.793	1411	1414	1416	rBB3	25796	36568	3.17%	0.348%
65	15.885	1416	1423	1428	rBB8	46704	149407	12.97%	1.423%
66	15.986	1428	1433	1435	rBB5	9949	41842	3.63%	0.399%
67	16.026	1435	1437	1439	rBB3	11957	12615	1.10%	0.120%
68	16.087	1439	1443	1445	rBB4	30272	53258	4.62%	0.507%
69	16.138	1445	1448	1450	rBB2	46161	56655	4.92%	0.540%
70	16.209	1450	1455	1459	rBB6	27678	77970	6.77%	0.743%
71	16.280	1459	1462	1465	rBB3	52903	91720	7.96%	0.874%
72	16.320	1465	1466	1471	rBB4	10099	22117	1.92%	0.211%
73	16.411	1472	1475	1477	rBB2	30335	43047	3.74%	0.410%
74	16.482	1477	1482	1484	rBB2	56805	100402	8.72%	0.956%
75	16.543	1485	1488	1493	rBB6	24888	73142	6.35%	0.697%
76	16.634	1493	1497	1503	rBB4	37872	115937	10.06%	1.104%
77	16.755	1503	1509	1512	rBB6	24882	69845	6.06%	0.665%
78	16.806	1512	1514	1519	rBB4	35662	96290	8.36%	0.917%
79	16.887	1519	1522	1525	rBB2	47158	75419	6.55%	0.718%
80	16.958	1525	1529	1531	rBB4	17062	36074	3.13%	0.344%
81	16.998	1531	1533	1536	rBB3	21124	30910	2.68%	0.294%
82	17.049	1536	1538	1544	rBB7	14558	27184	2.36%	0.259%
83	17.140	1544	1547	1549	rBB3	22842	34045	2.96%	0.324%
84	17.262	1556	1559	1562	rBB4	9418	15434	1.34%	0.147%
85	17.424	1571	1575	1578	rBB3	15542	28226	2.45%	0.269%
86	17.535	1582	1586	1590	rBB4	10288	20497	1.78%	0.195%
87	17.616	1590	1594	1601	rBB4	34722	93860	8.15%	0.894%
88	17.707	1601	1603	1610	rBB8	4179	12440	1.08%	0.118%
89	17.900	1617	1622	1624	rBB3	16639	32398	2.81%	0.309%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM091013.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

90	17.971	1624	1629	1633	rBB4	14009	37893	3.29%	0.361%
91	18.062	1633	1638	1651	rBB2	36521	98180	8.52%	0.935%
92	18.244	1651	1656	1658	rBB2	9442	20289	1.76%	0.193%
93	18.285	1658	1660	1669	rBB9	6015	16540	1.44%	0.158%
94	18.436	1671	1675	1681	rBB6	11683	29092	2.53%	0.277%
95	18.619	1690	1693	1700	rBB7	6040	14381	1.25%	0.137%
96	18.791	1706	1710	1720	rBB7	4403	19250	1.67%	0.183%
97	18.933	1720	1724	1732	rBB10	4533	14087	1.22%	0.134%
98	19.348	1758	1765	1769	rBB3	8175	24942	2.17%	0.238%

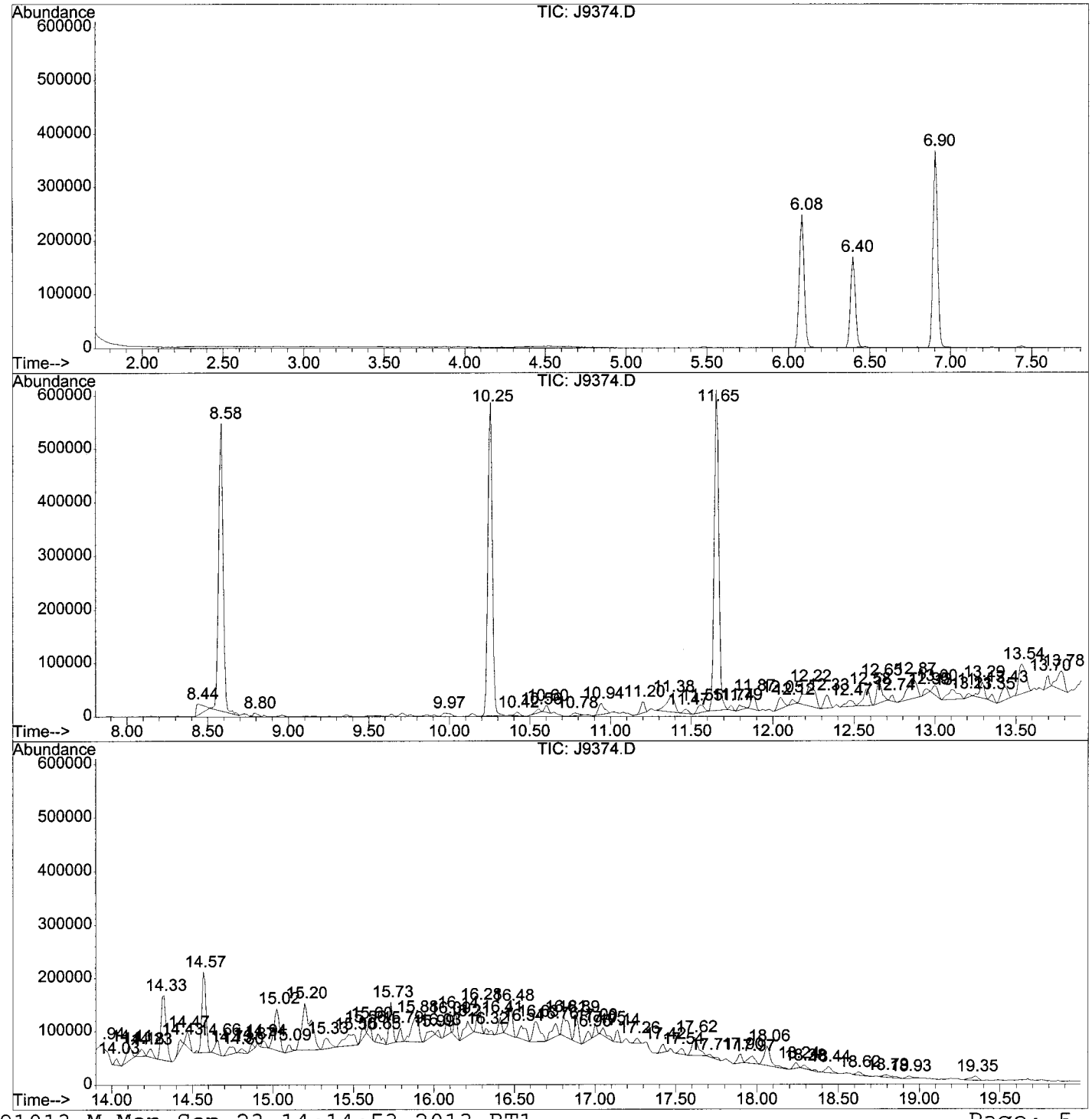
Sum of corrected areas: 10498920

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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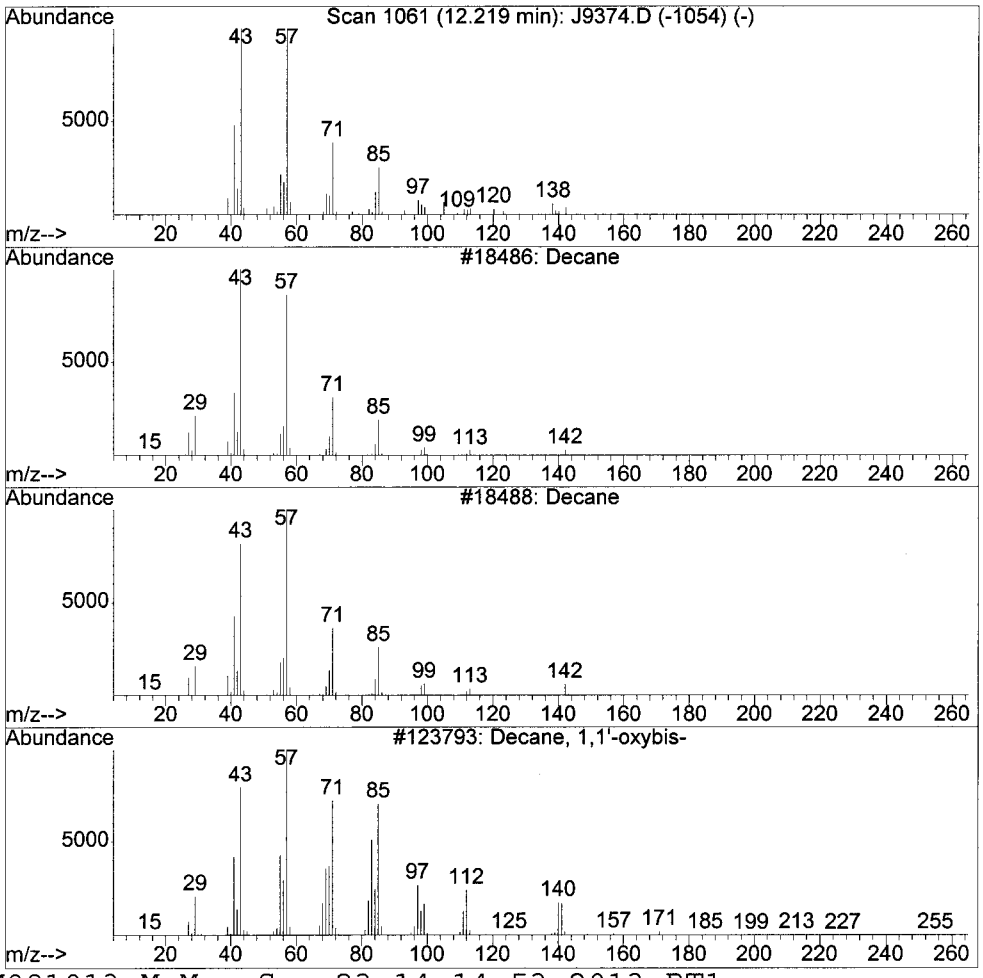
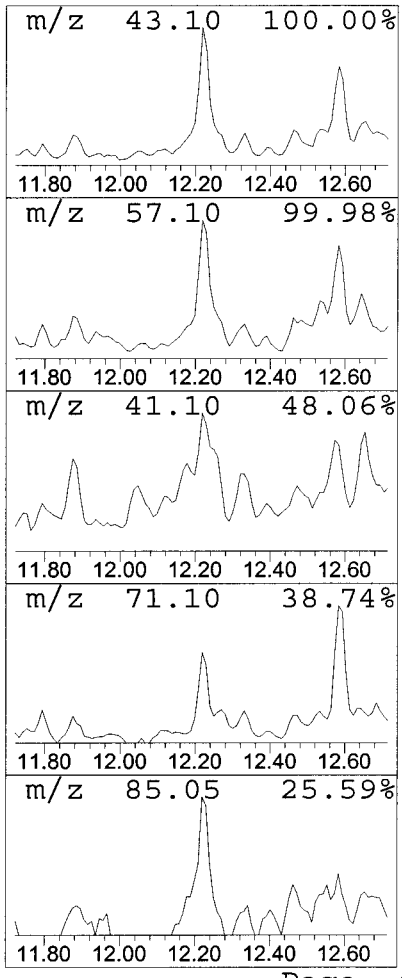
Peak Number 1 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.22	7.49 UG	168687	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane	142	C10H22	000124-18-5	94
2	Decane	142	C10H22	000124-18-5	76
3	Decane, 1,1'-oxybis-	298	C20H42O	002456-28-2	64
4	Hexatriacontane	507	C36H74	000630-06-8	64
5	Oxalic acid, 6-ethyloct-3-yl iso...	286	C16H30O4	1000309-34-1	59





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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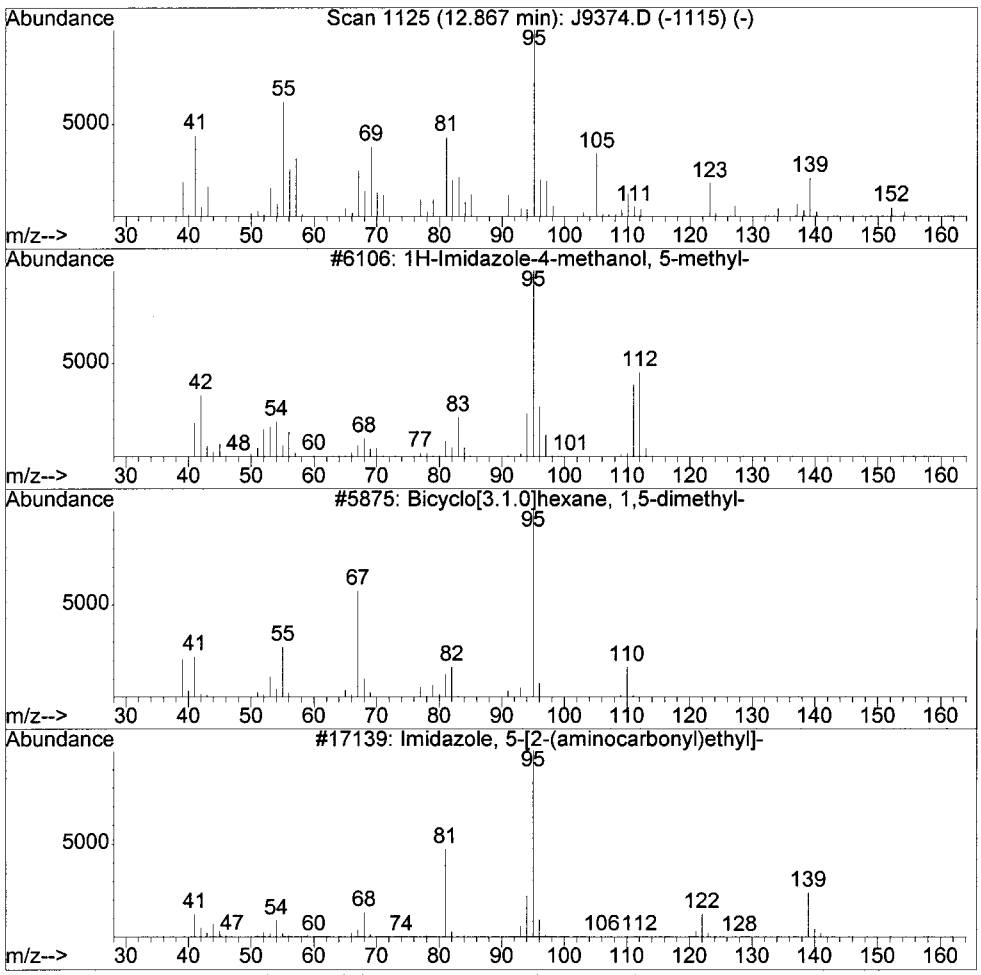
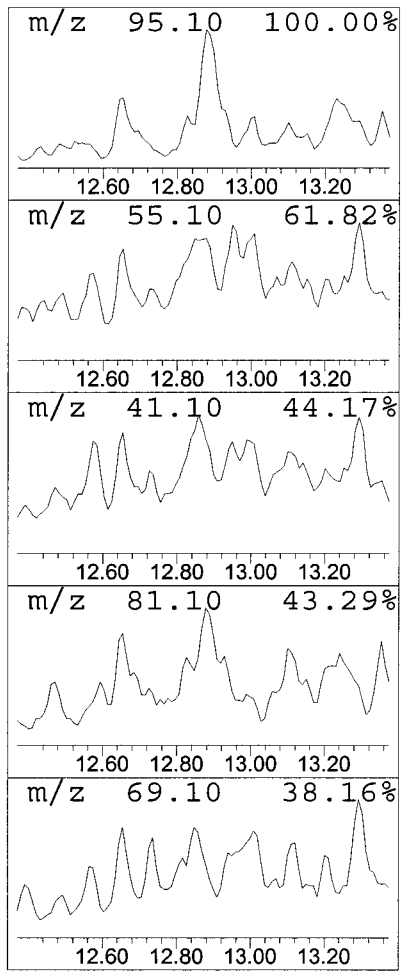
Peak Number 2 Unknown VOA Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.87	6.53 UG	147105	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Imidazole-4-methanol, 5-methyl-	112	C5H8N2O	029636-87-1	43
2	Bicyclo[3.1.0]hexane, 1,5-dimethyl-	110	C8H14	1000142-17-5	43
3	Imidazole, 5-[2-(aminocarbonyl)e...	139	C6H9N3O	040160-23-4	38
4	Borneol	154	C10H18O	000507-70-0	35
5	Borneol	154	C10H18O	000507-70-0	35





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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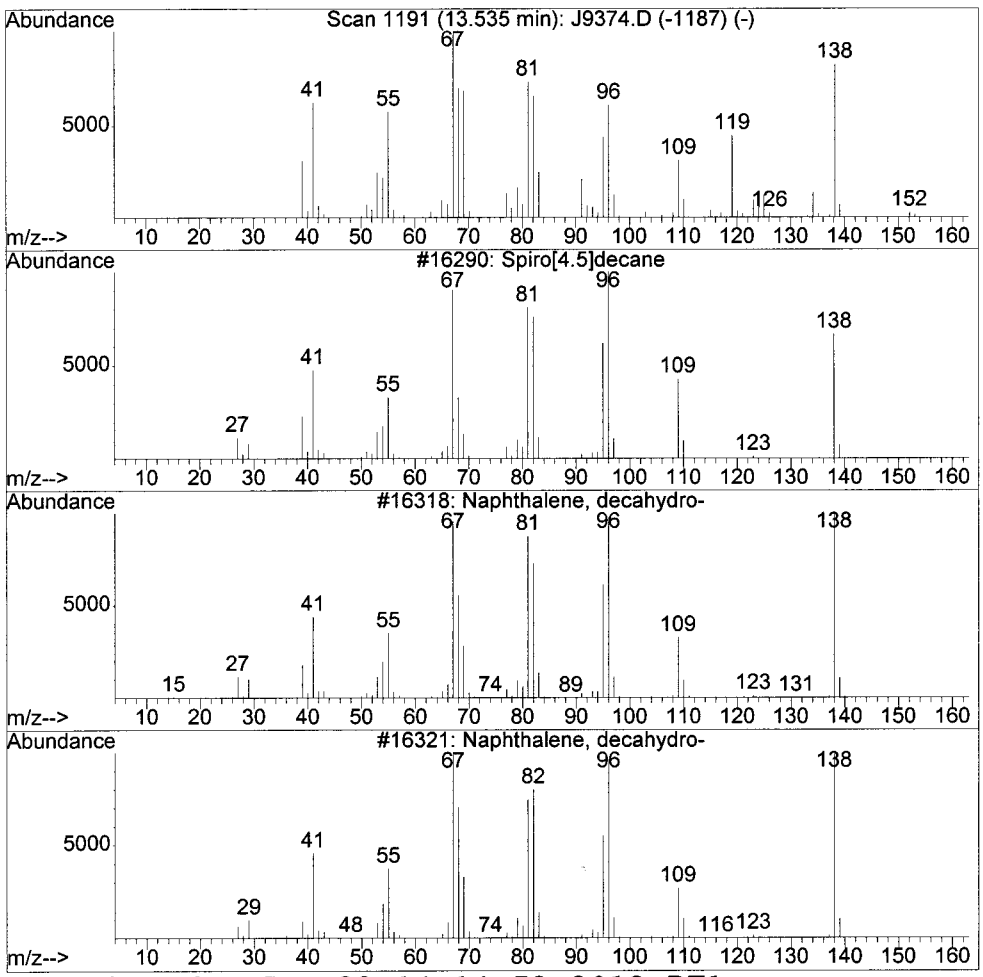
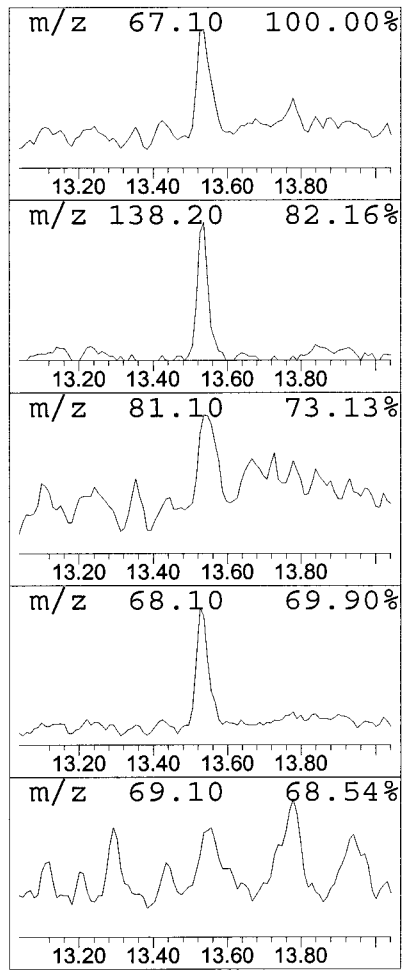
Peak Number 3 Unknown PAH Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.54	7.68 UG	173155	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Spiro[4.5]decane	138	C10H18	000176-63-6	95
2	Naphthalene, decahydro-	138	C10H18	000091-17-8	94
3	Naphthalene, decahydro-	138	C10H18	000091-17-8	94
4	Naphthalene, decahydro-	138	C10H18	000091-17-8	94
5	Naphthalene, decahydro-, cis-	138	C10H18	000493-01-6	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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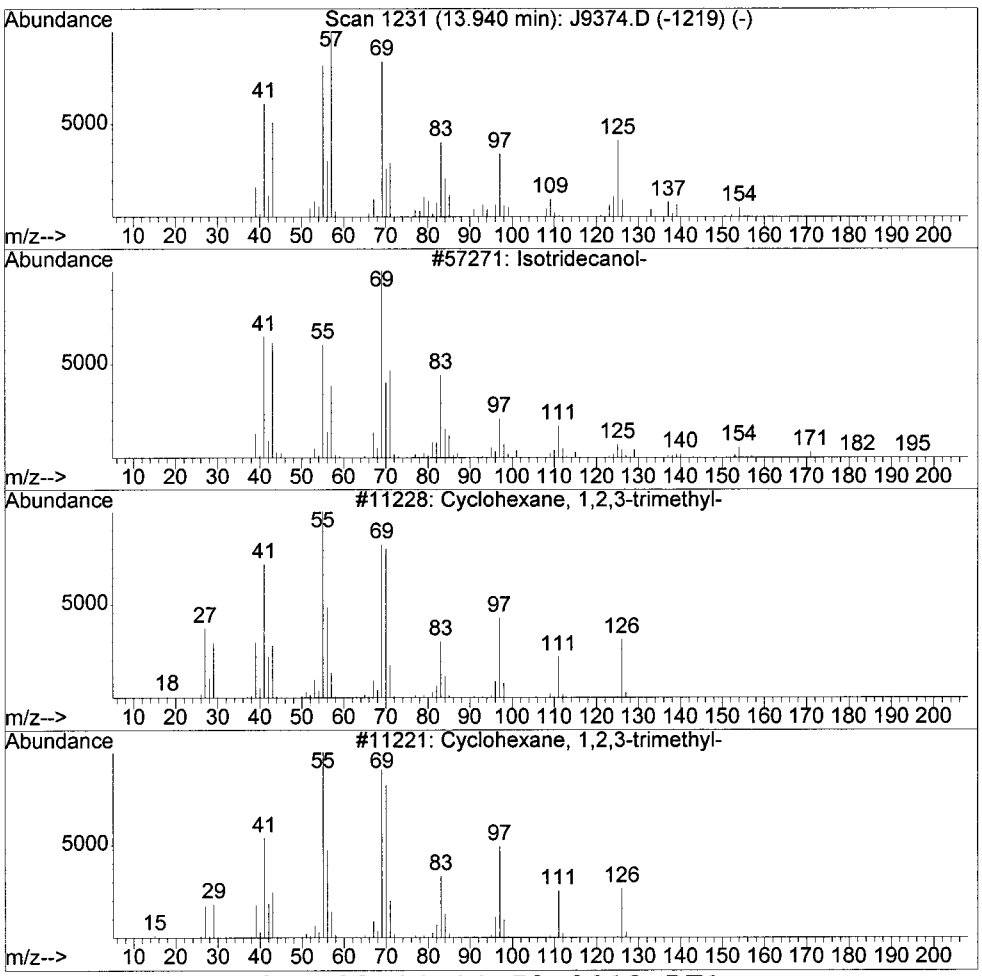
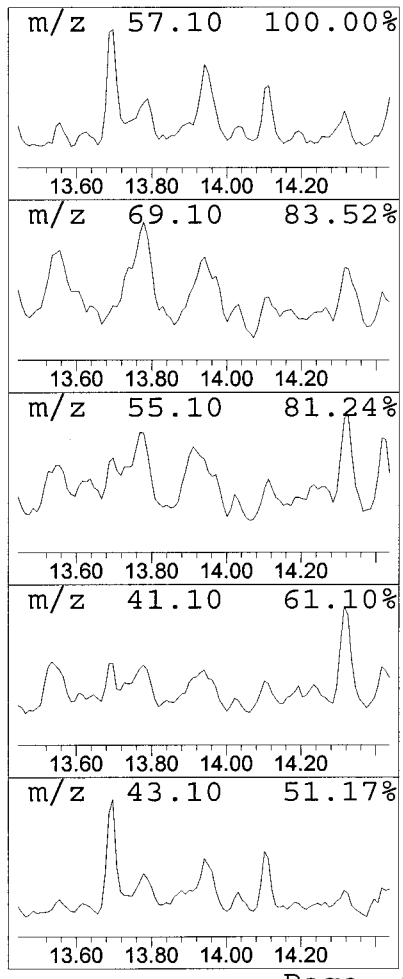
Peak Number 4 Unknown Hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.94	8.75 UG	197225	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isotridecanol-	200	C13H28O	027458-92-0	50
2	Cyclohexane, 1,2,3-trimethyl-	126	C9H18	001678-97-3	49
3	Cyclohexane, 1,2,3-trimethyl-	126	C9H18	001678-97-3	46
4	2,6-Octadienal, 3,7-dimethyl-	152	C10H16O	005392-40-5	35
5	2-Pentene, 4-methyl-	84	C6H12	004461-48-7	30





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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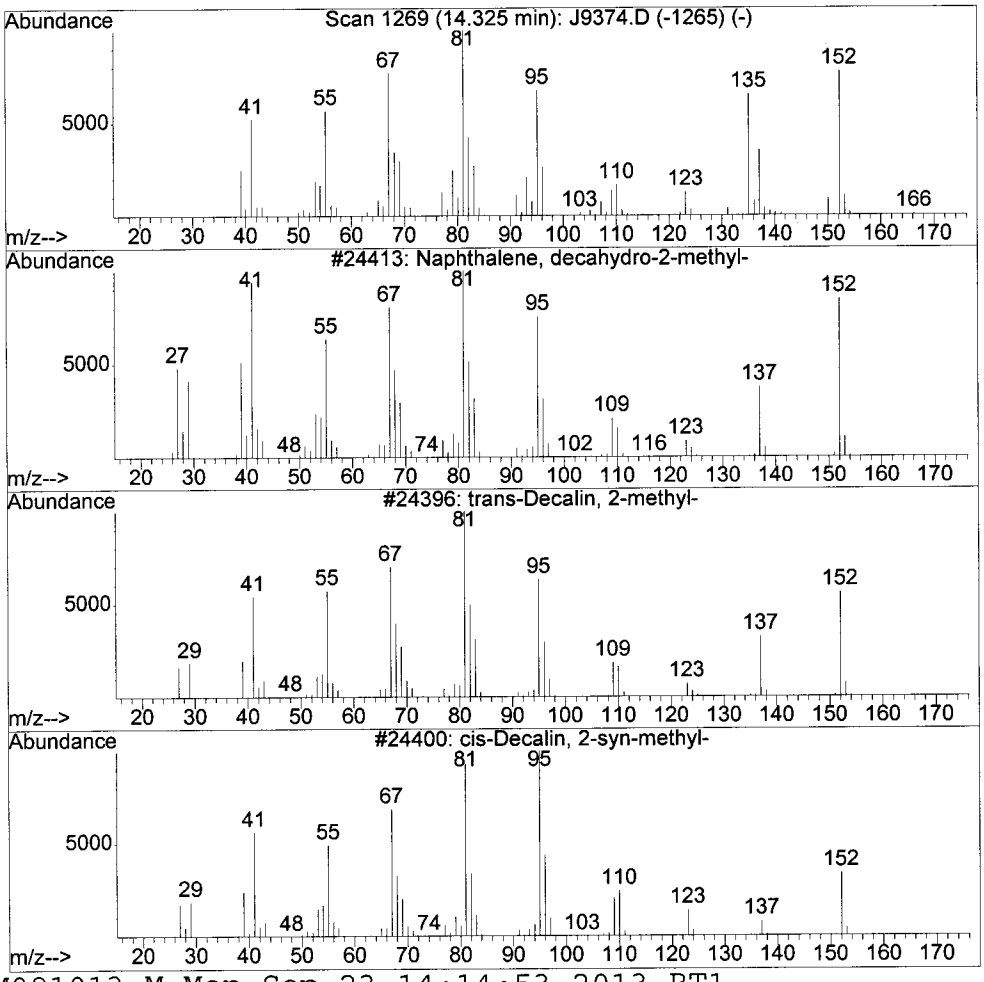
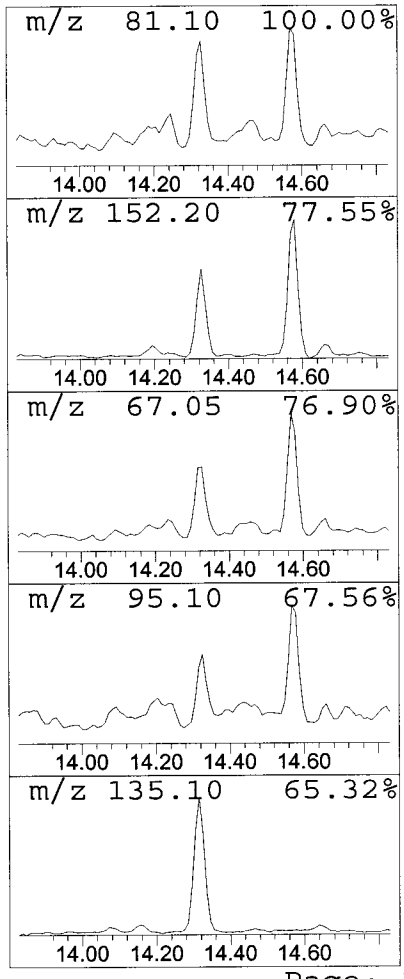
Peak Number 5 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.33	11.84 UG	266730	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	97
2	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	94
3	cis-Decalin, 2-syn-methyl-	152	C11H20	1000155-85-6	93
4	Cyclohexanone, 5-methyl-2-(1-met...	152	C10H16O	015932-80-6	86
5	Cyclohexanone, 5-methyl-2-(1-met...	152	C10H16O	015932-80-6	76





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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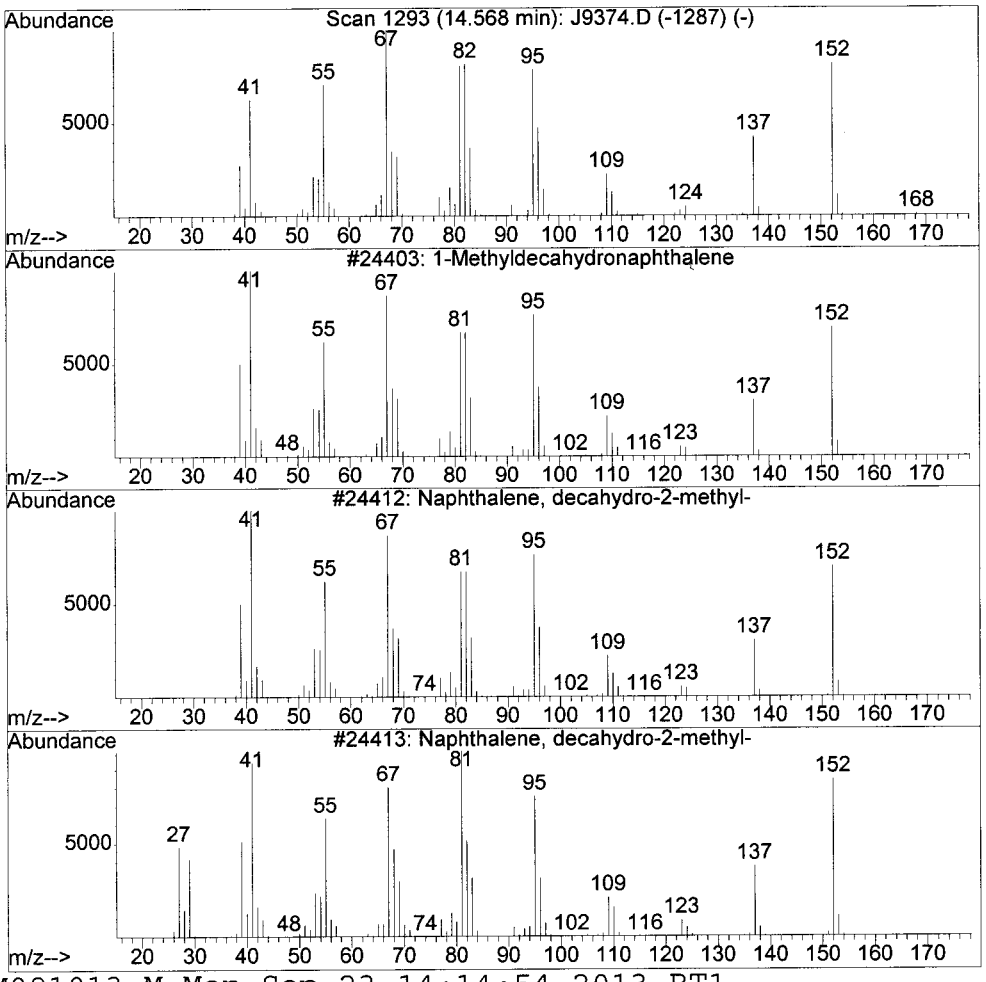
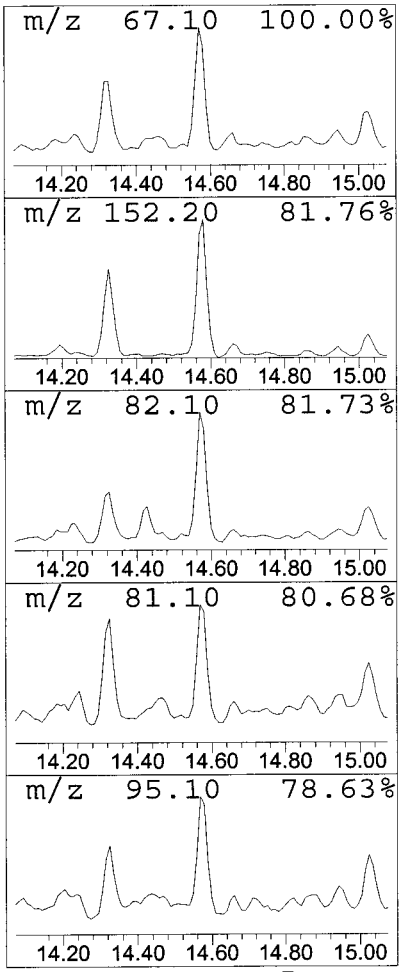
Peak Number 6 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.57	12.10 UG	272631	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Methyldecahydronaphthalene	152	C11H20	002958-75-0	98
2	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	98
3	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	93
4	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	74
5	trans-4a-Methyl-decahydronaphtha...	152	C11H20	002547-27-5	60





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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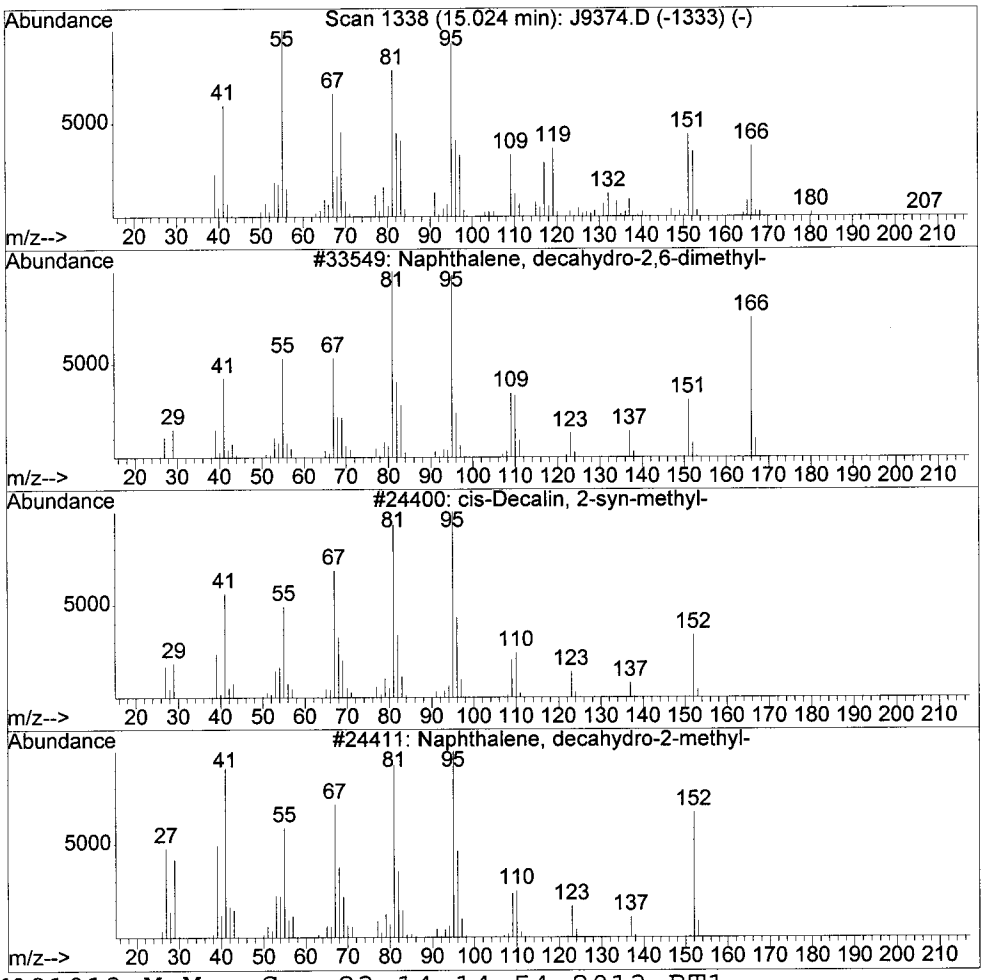
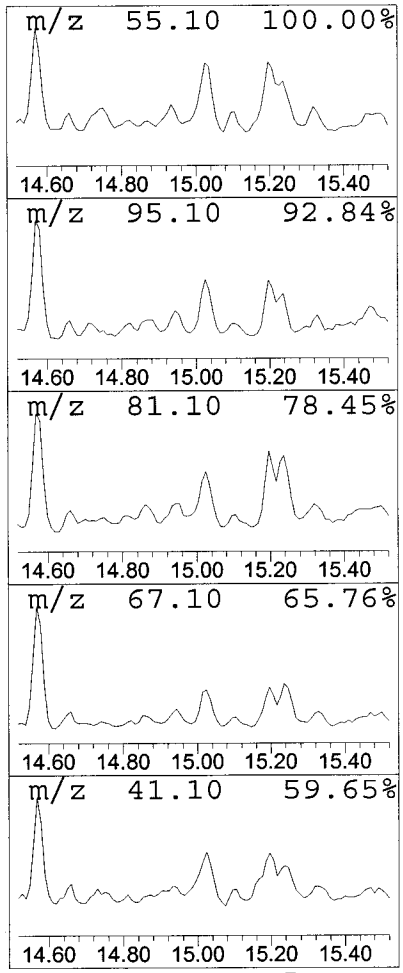
Peak Number 7 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.02	8.14 UG	183492	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-2,6-dimet...	166	C12H22	001618-22-0	60
2	cis-Decalin, 2-syn-methyl-	152	C11H20	1000155-85-6	52
3	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	52
4	Cyclodecene, 1-methyl-	152	C11H20	066633-38-3	52
5	Decalin, anti-1-methyl-, cis-	152	C11H20	1000158-89-0	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

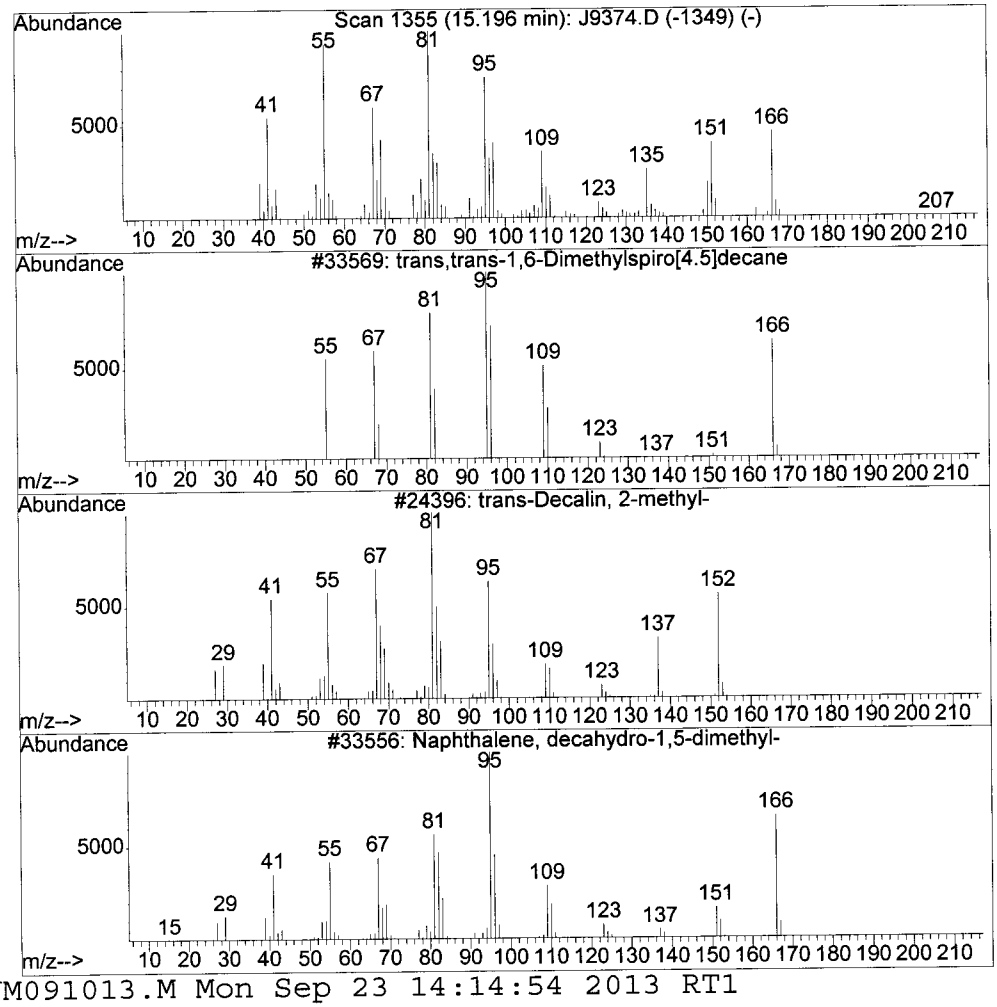
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

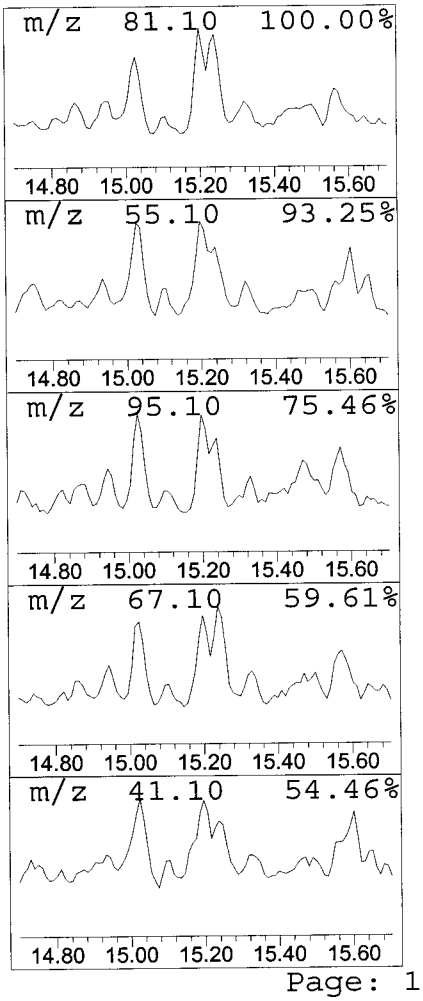
****

Peak Number 8 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.20	15.26 UG	343906	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans,trans-1,6-Dimethylspiro[4....	166	C12H22	1000111-72-1	64
2	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	52
3	Naphthalene, decahydro-1,5-dimet...	166	C12H22	066552-62-3	50
4	Cyclodecene, 1-methyl-	152	C11H20	066633-38-3	49
5	Cycloundecene, 1-methyl-	166	C12H22	088828-82-4	46





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

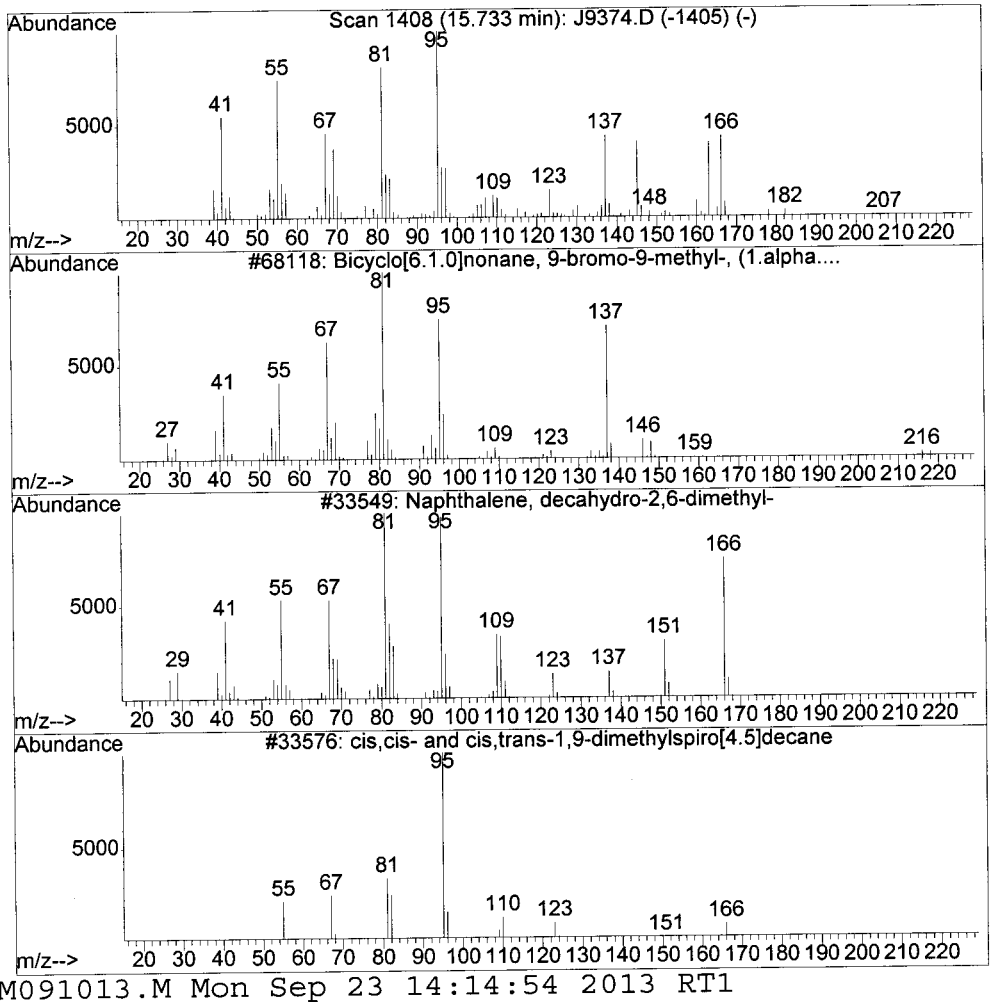
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

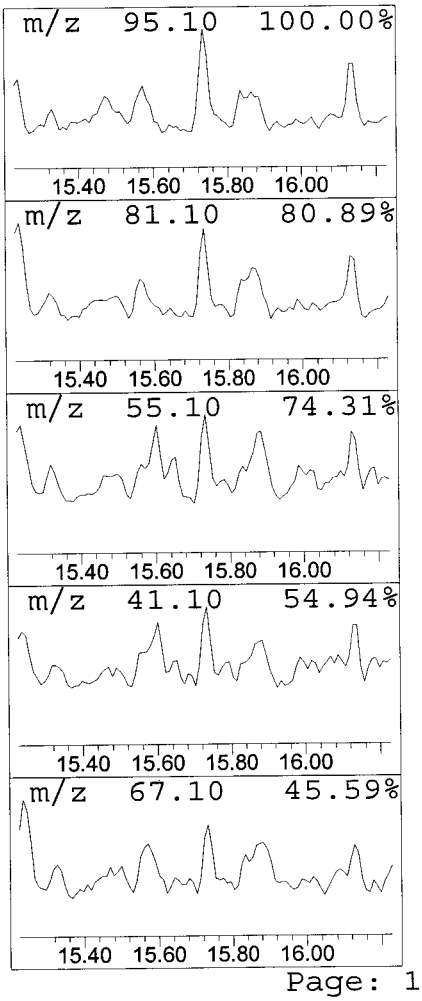
****

Peak Number 9 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.73	5.51 UG	124133	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[6.1.0]nonane, 9-bromo-9-...	216	C10H17Br	059474-03-2	50
2	Naphthalene, decahydro-2,6-dimet...	166	C12H22	001618-22-0	46
3	cis,cis- and cis,trans-1,9-dimet...	166	C12H22	1000111-72-5	38
4	Naphthalene, decahydro-1,6-dimet...	166	C12H22	001750-51-2	27
5	Ketone, 1,5-dimethylbicyclo[2.1....	138	C9H14O	024081-57-0	25





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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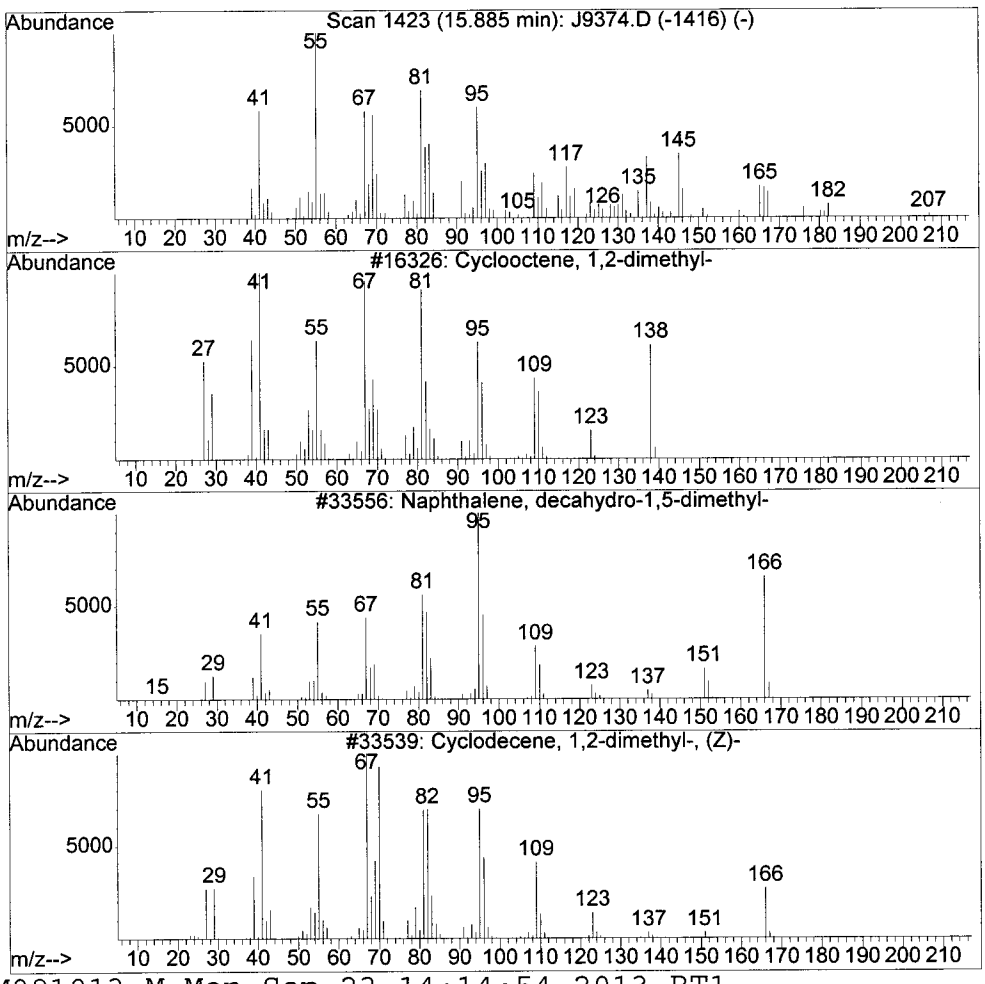
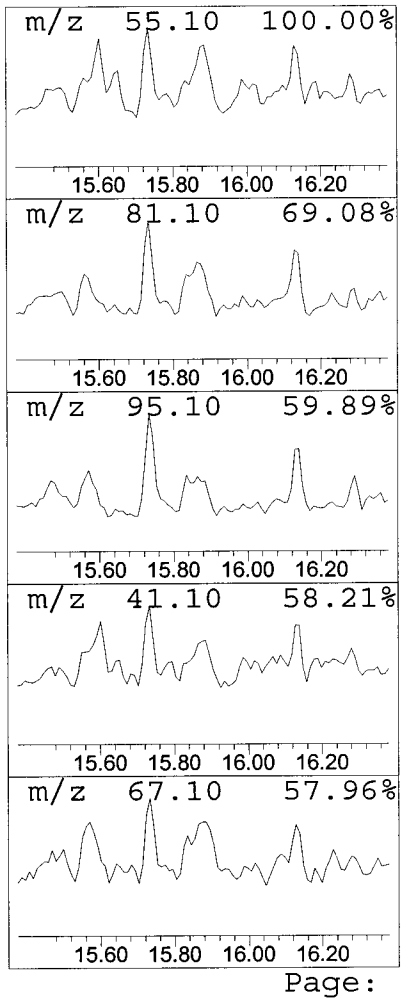
Peak Number 10 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.88	6.63 UG	149407	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclooctene, 1,2-dimethyl-	138	C10H18	054299-96-6	51
2	Naphthalene, decahydro-1,5-dimet...	166	C12H22	066552-62-3	46
3	Cyclodecene, 1,2-dimethyl-, (Z)-	166	C12H22	014113-67-8	45
4	Bicyclo[4.1.0]heptane, 3-methyl-	110	C8H14	041977-47-3	44
5	1-Cyclohexylheptene	180	C13H24	114614-83-4	41





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : J9374.D
Acq On : 20 Sep 2013 18:22
Operator : MEI
Sample : AOC-7-2/11-11.,09197-004,M,0.096g,17.8
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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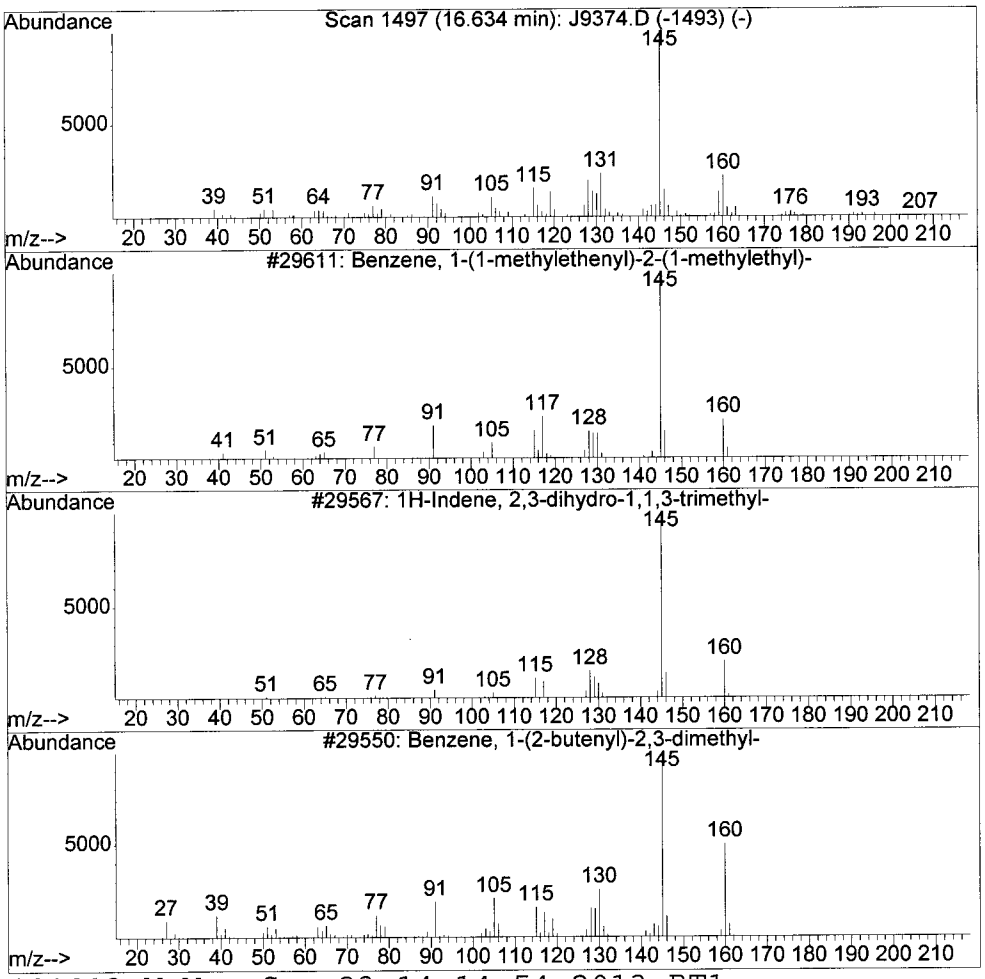
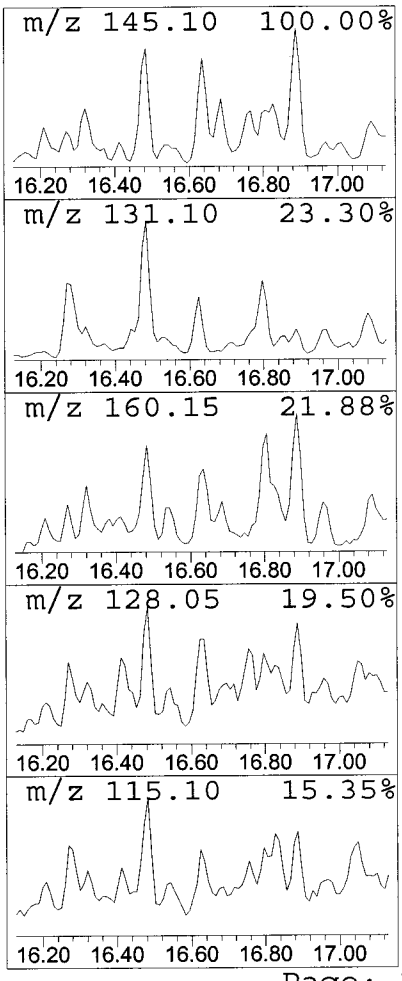
Peak Number 11 Unknown Aromatic Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.63	5.14 UG	115937	Chlorobenzene-d5	10.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-(1-methylethenyl)-2-(...	160	C12H16	005557-93-7	89
2	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	81
3	Benzene, 1-(2-butenyl)-2,3-dimet...	160	C12H16	054340-85-1	81
4	Benzene, 1-(2-butenyl)-2,3-dimet...	160	C12H16	054340-85-1	76
5	1H-Indene, 2,3-dihydro-4,5,7-tri...	160	C12H16	006682-06-0	76





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7757.D
Acq On : 21 Sep 2013 5:23
Operator : XING
Sample : AOC-7-3/9.5-10,09197-005,S,4.9g,25.6
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 23 10:39:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	543412	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	728963	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	658499	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	687427	49.18	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 98.36%			
41) Toluene-d8	8.563	98	997027	43.27	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 86.54%			
59) Bromofluorobenzene	11.639	95	504908	41.24	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 82.48%			

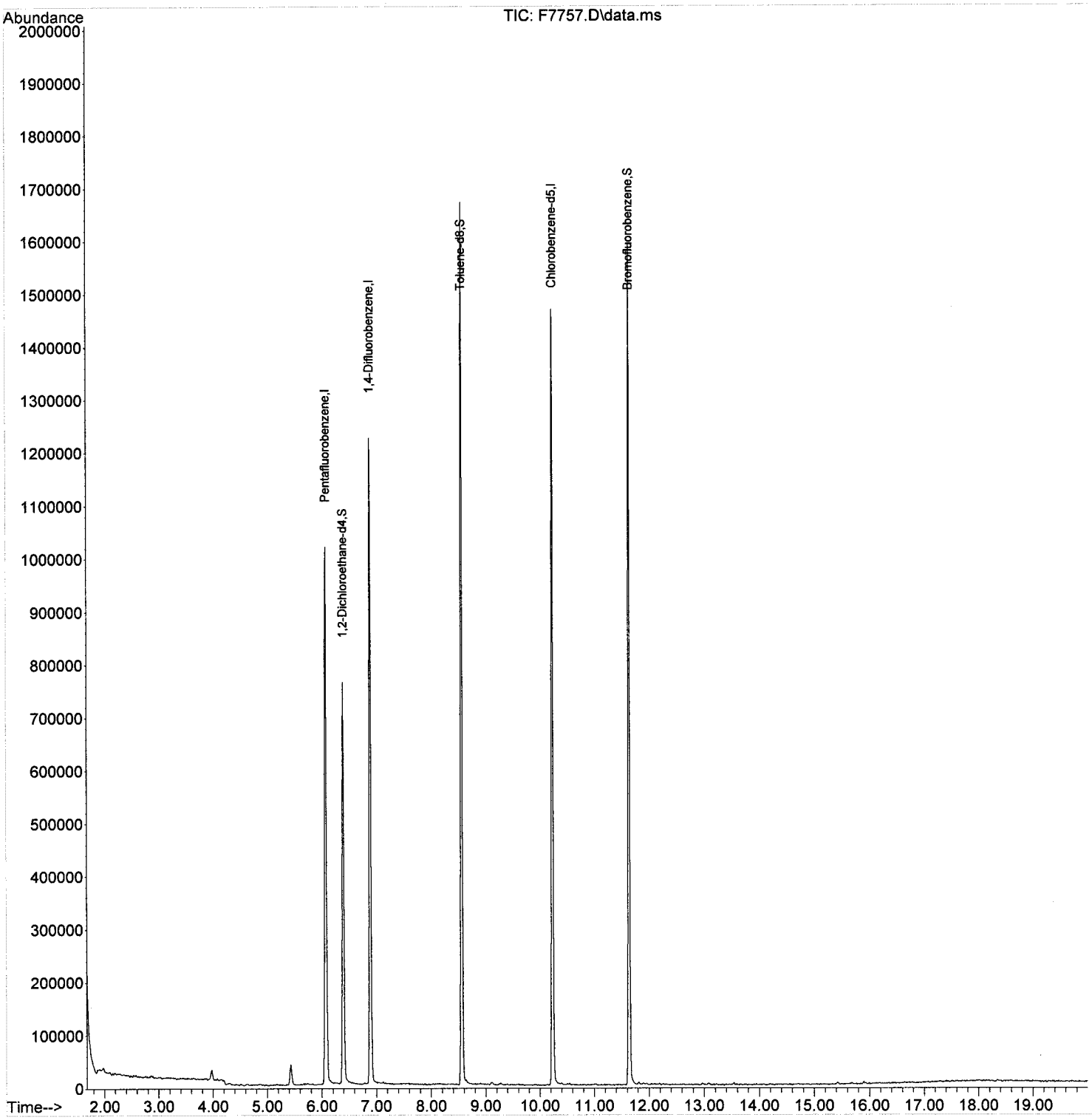
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7757.D
Acq On : 21 Sep 2013 5:23
Operator : XING
Sample : AOC-7-3/9.5-10,09197-005,S,4.9g,25.6
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 23 10:39:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7757.D
Acq On : 21 Sep 2013 5:23
Operator : XING
Sample : AOC-7-3/9.5-10,09197-005,S,4.9g,25.6
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7757.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.975	223	228	233	rVB	18304	41646	1.35%	0.281%
2	5.426	363	371	384	rBV	38519	106015	3.44%	0.714%
3	6.076	428	435	448	rBV	1015000	2165709	70.25%	14.587%
4	6.391	459	466	489	rVB	758346	1579548	51.23%	10.639%
5	6.888	510	515	533	rBV	1219195	2356087	76.42%	15.869%
6	8.563	674	680	699	rBV	1667469	3083010	100.00%	20.766%
7	10.228	837	844	858	rBV	1465896	2799428	90.80%	18.856%
8	11.639	976	983	996	rBV	1587117	2715253	88.07%	18.289%

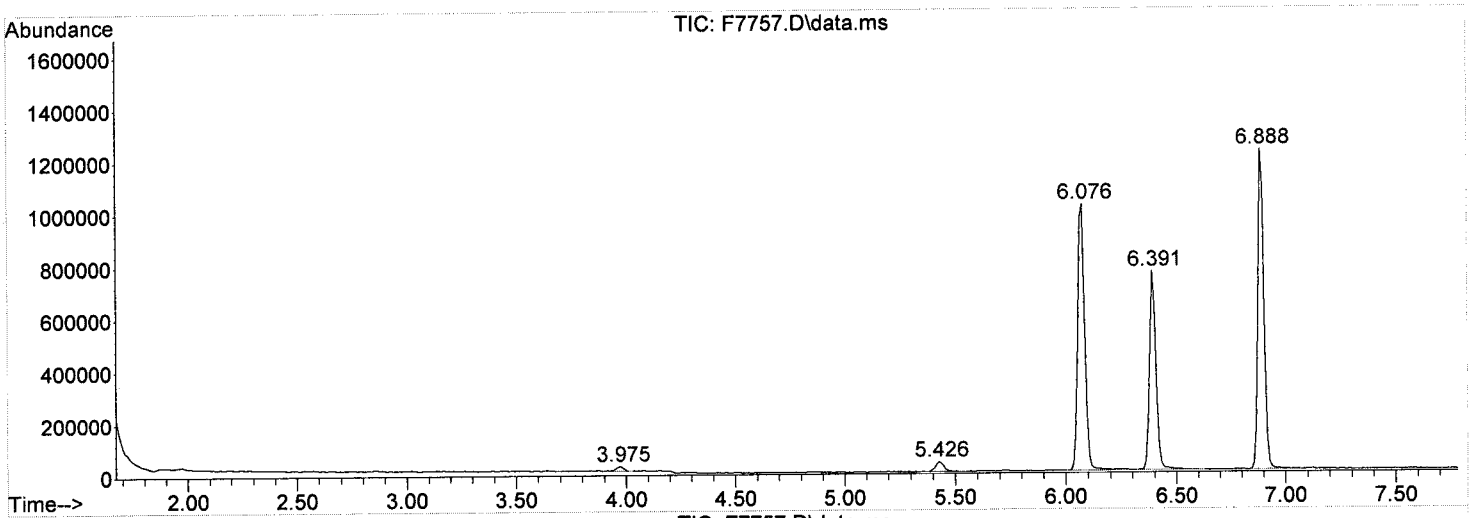
Sum of corrected areas: 14846696

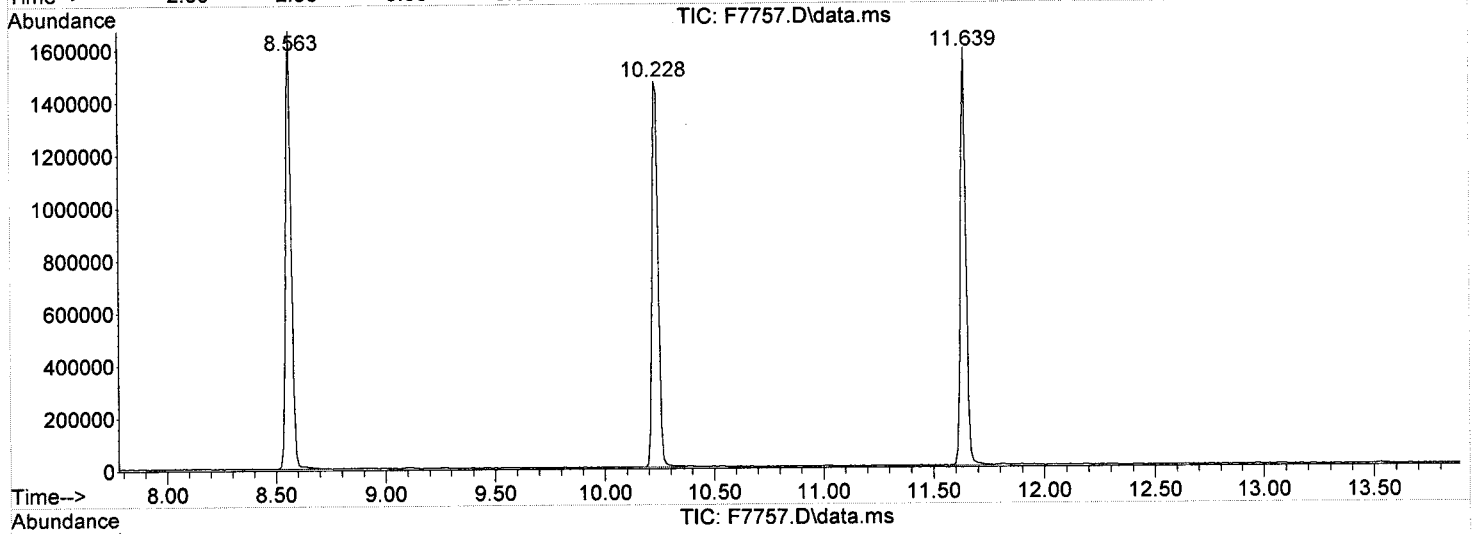
LSC Report - Integrated Chromatogram

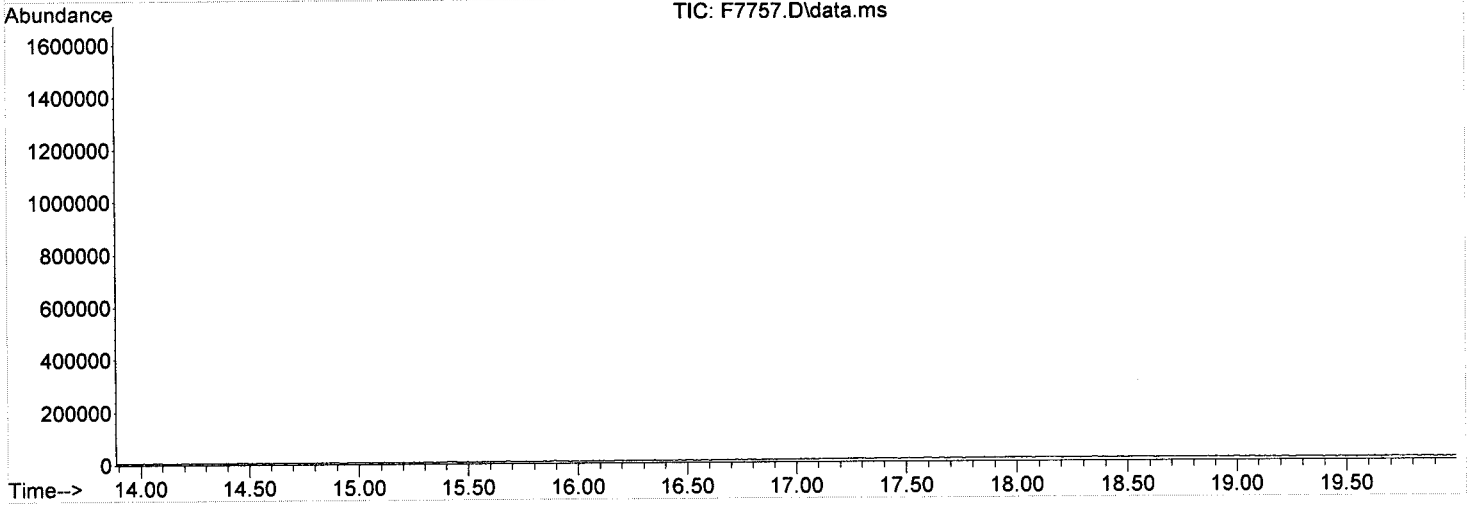
Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7757.D
Acq On : 21 Sep 2013 5:23
Operator : XING
Sample : AOC-7-3/9.5-10,09197-005,S,4.9g,25.6
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







E13-09197 0150

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7758.D
Acq On : 21 Sep 2013 5:54
Operator : XING
Sample : AOC-8/12.5-13,09197-007,S,4.6g,17.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 23 10:40:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	550072	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	717426	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	664349	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	655751	46.35	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 92.70%			
41) Toluene-d8	8.563	98	1007676	44.44	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 88.88%			
59) Bromofluorobenzene	11.639	95	520082	42.11	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 84.22%			

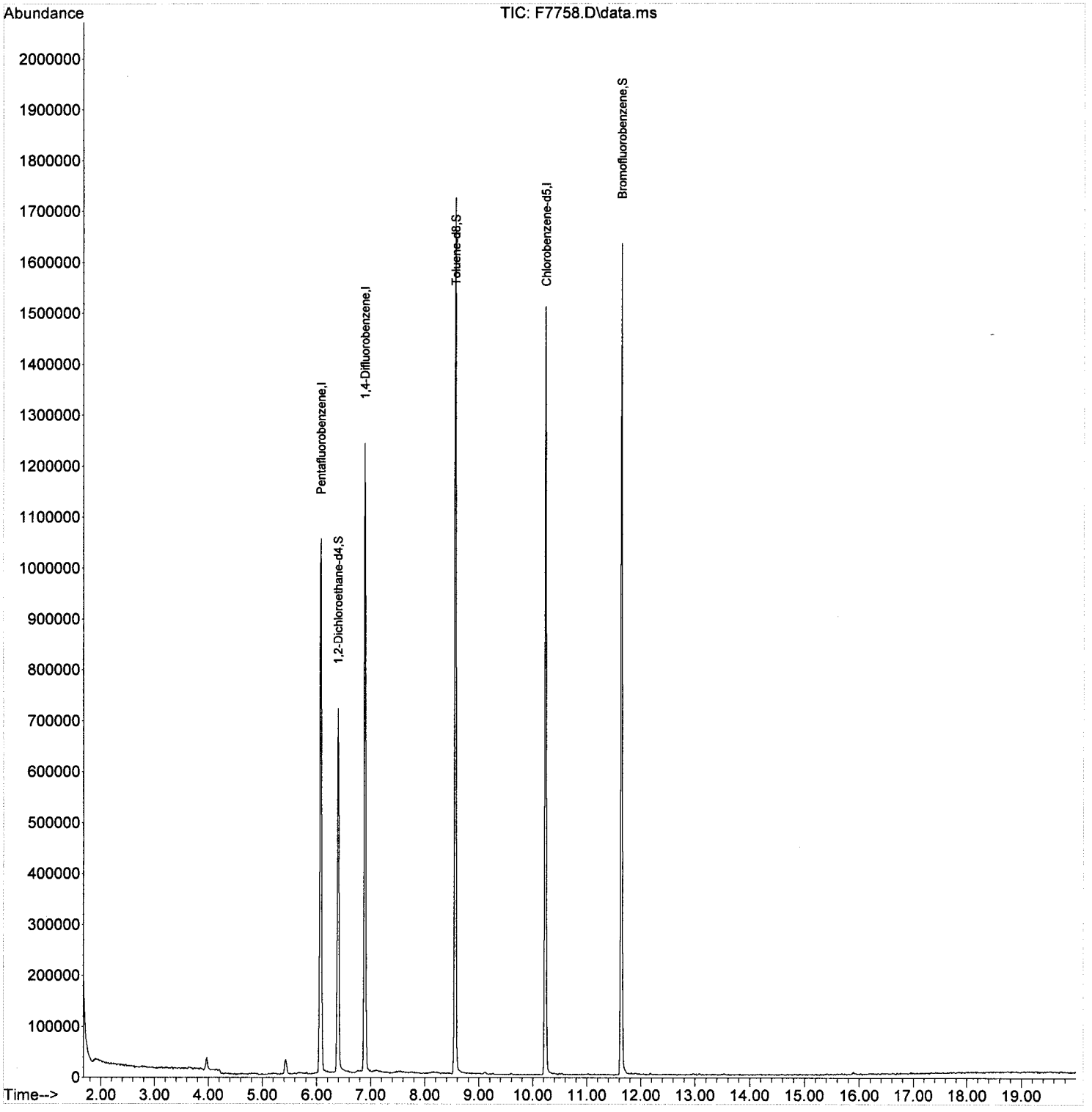
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7758.D
Acq On : 21 Sep 2013 5:54
Operator : XING
Sample : AOC-8/12.5-13,09197-007,S,4.6g,17.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 23 10:40:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7758.D
Acq On : 21 Sep 2013 5:54
Operator : XING
Sample : AOC-8/12.5-13,09197-007,S,4.6g,17.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7758.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.975	222	228	234	rBV	24882	65178	2.09%	0.434%
2	5.426	364	371	379	rVB2	27618	77443	2.48%	0.516%
3	6.076	419	435	446	rBV	1050342	2229043	71.32%	14.859%
4	6.391	459	466	485	rBV	713992	1493834	47.80%	9.958%
5	6.888	509	515	528	rVB	1233158	2360416	75.53%	15.735%
6	8.563	674	680	694	rBV	1720143	3125334	100.00%	20.834%
7	10.228	837	844	859	rBV	1507905	2858855	91.47%	19.058%
8	11.639	977	983	996	rBV	1631535	2790931	89.30%	18.605%

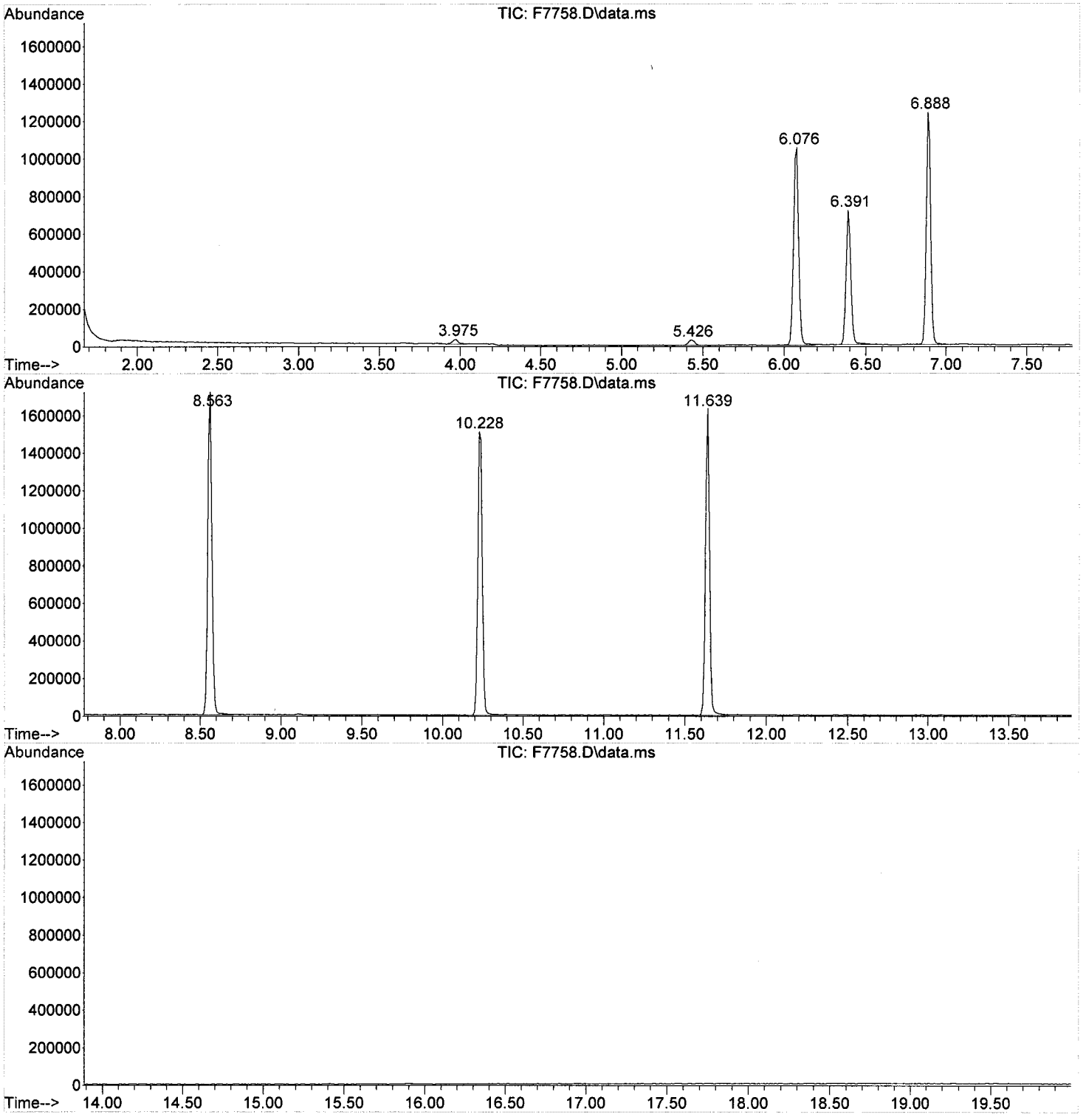
Sum of corrected areas: 15001034

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7758.D
Acq On : 21 Sep 2013 5:54
Operator : XING
Sample : AOC-8/12.5-13,09197-007,S,4.6g,17.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7759.D
Acq On : 21 Sep 2013 6:24
Operator : XING
Sample : AOC-12-2/3.5-4,09197-009,S,4g,14.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 23 10:41:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	518711	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	683809	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	627877	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	643741	48.25	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 96.50%			
41) Toluene-d8	8.563	98	954890	44.18	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 88.36%			
59) Bromofluorobenzene	11.639	95	481453	41.24	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 82.48%			

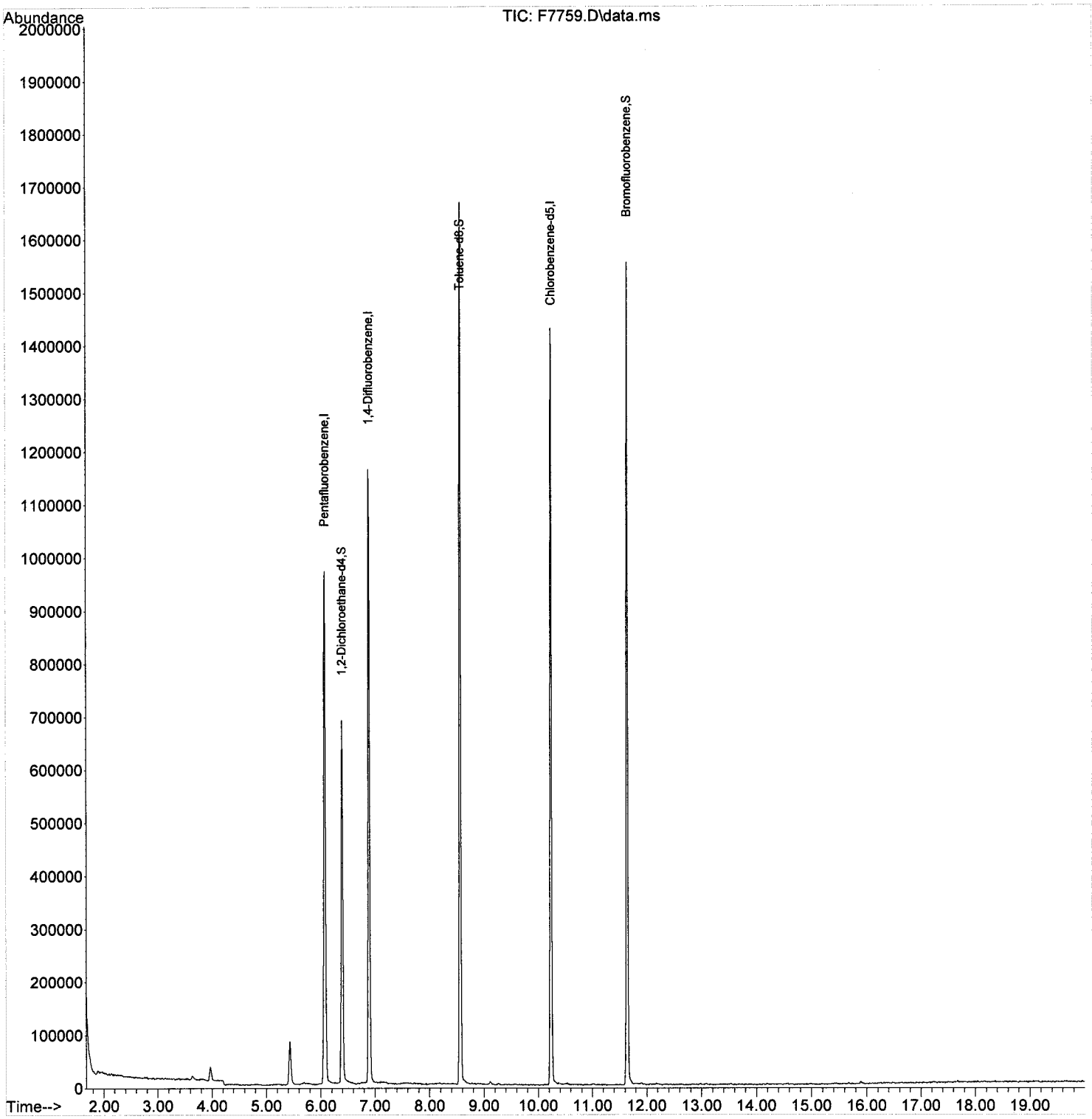
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7759.D
Acq On : 21 Sep 2013 6:24
Operator : XING
Sample : AOC-12-2/3.5-4,09197-009,S,4g,14.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 23 10:41:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7759.D
Acq On : 21 Sep 2013 6:24
Operator : XING
Sample : AOC-12-2/3.5-4,09197-009,S,4g,14.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 37 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7759.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.964	222	227	235	rBV	25639	65127	2.18%	0.452%
2	5.426	363	371	381	rBV	81504	219689	7.36%	1.526%
3	6.076	427	435	449	rBV	967422	2098008	70.33%	14.573%
4	6.391	457	466	492	rVB	686404	1489819	49.94%	10.349%
5	6.888	510	515	527	rBV	1156613	2236781	74.99%	15.537%
6	8.563	674	680	698	rBV	1663628	2982928	100.00%	20.720%
7	10.228	837	844	857	rBV	1427045	2699455	90.50%	18.751%
8	11.639	976	983	995	rBV	1551522	2604565	87.32%	18.092%

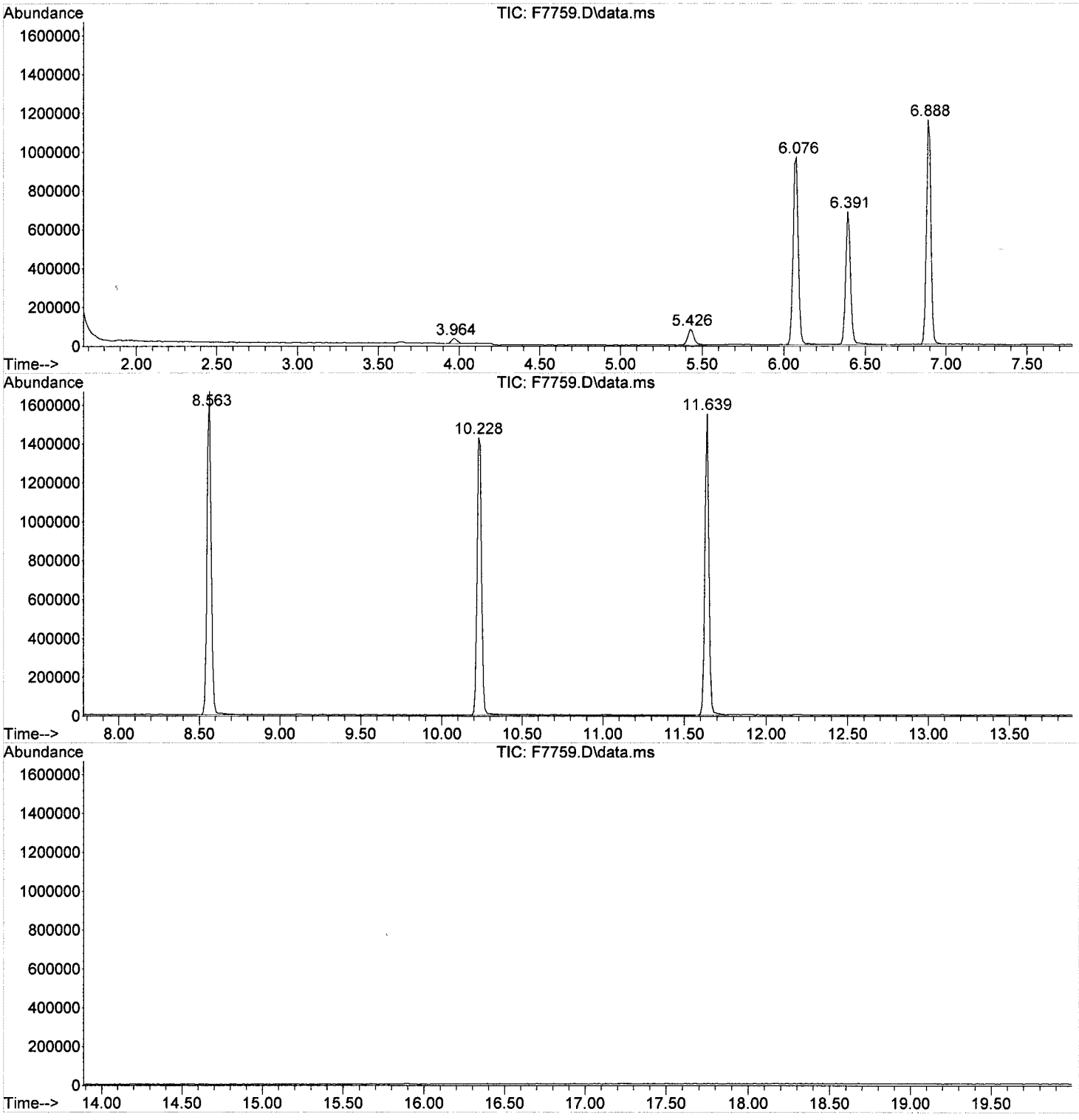
Sum of corrected areas: 14396372

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7759.D
Acq On : 21 Sep 2013 6:24
Operator : XING
Sample : AOC-12-2/3.5-4,09197-009,S,4g,14.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7759.D
Acq On : 21 Sep 2013 6:24
Operator : XING
Sample : AOC-12-2/3.5-4,09197-009,S,4g,14.0
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

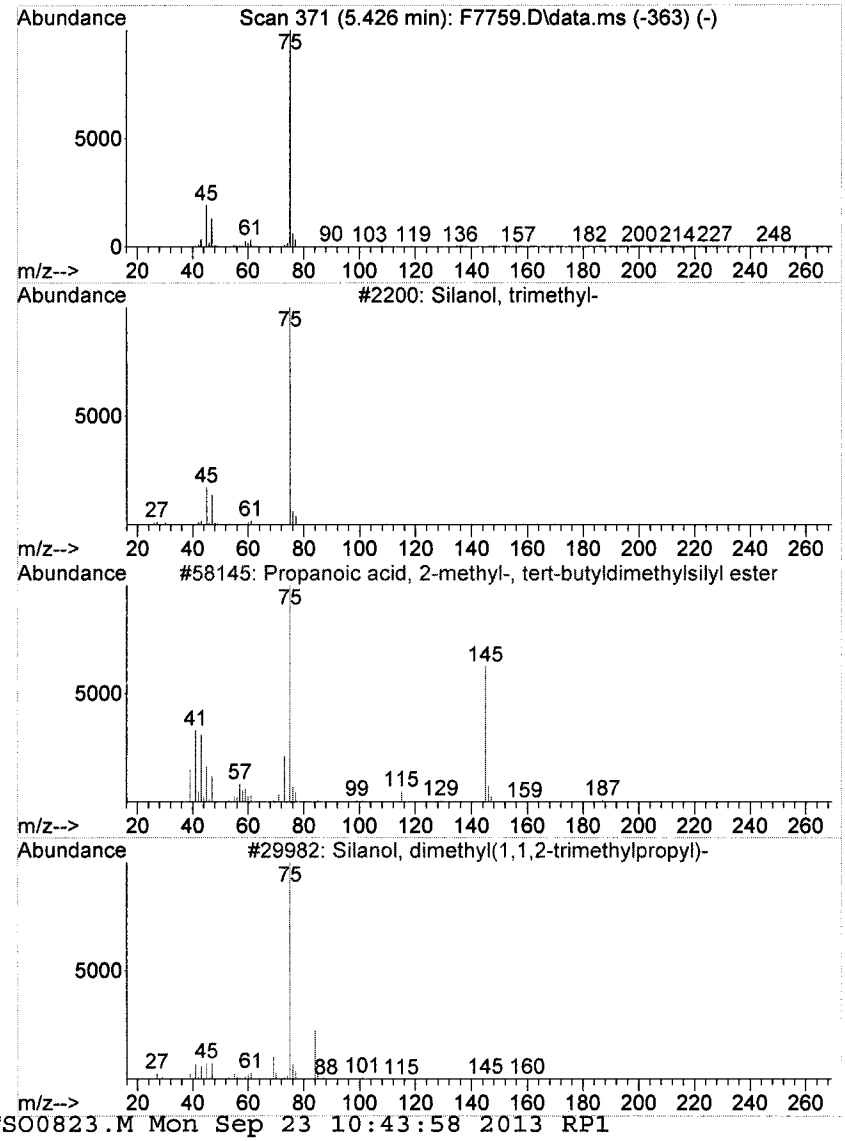
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

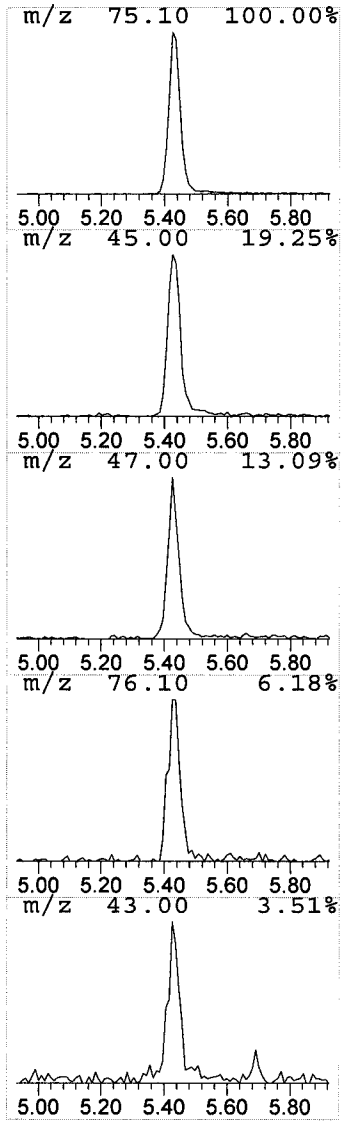
****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.43	5.24 UG	219689	Pentafluorobenzene	6.08

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	74
2	Propanoic acid, 2-methyl-, tert-...	202	C10H22O2Si	111864-21-2	64
3	Silanol, dimethyl(1,1,2-trimethy...	160	C8H20OSi	055644-10-5	64
4	3-(Methylthio)-2-butanone	118	C5H10OS	053475-15-3	56
5	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	53





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7760.D
Acq On : 21 Sep 2013 6:55
Operator : XING
Sample : AOC-6/18.5-19,09197-010,S,4.2g,17.7
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 23 10:48:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	504988	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	678130	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	632415	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	654208	50.37	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 100.74%			
41) Toluene-d8	8.563	98	970064	45.26	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 90.52%			
59) Bromofluorobenzene	11.639	95	495991	42.18	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 84.36%			

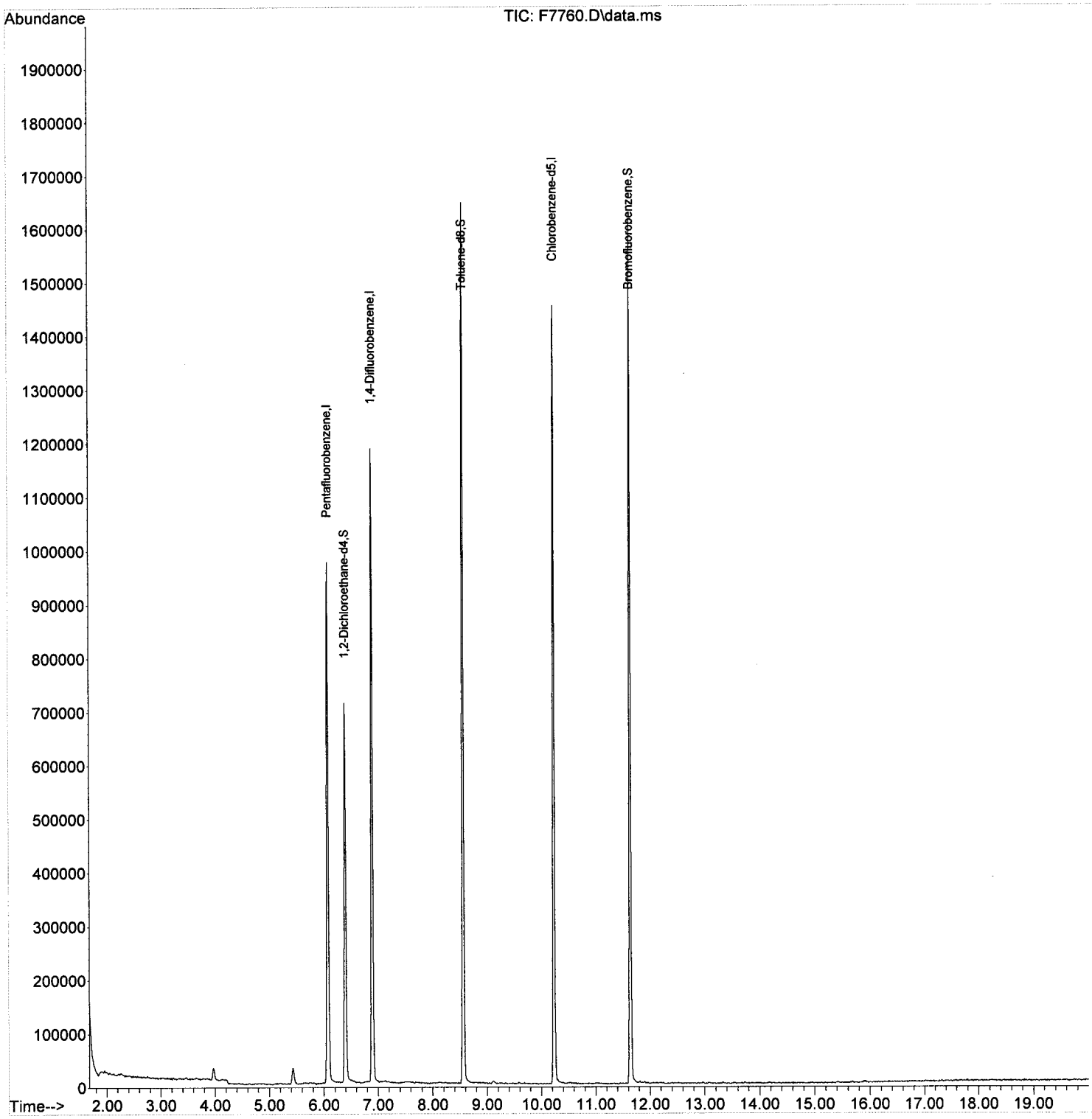
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7760.D
Acq On : 21 Sep 2013 6:55
Operator : XING
Sample : AOC-6/18.5-19,09197-010,S,4.2g,17.7
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 23 10:48:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7760.D
Acq On : 21 Sep 2013 6:55
Operator : XING
Sample : AOC-6/18.5-19,09197-010,S,4.2g,17.7
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 38 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7760.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.893	18	23	27	rBV2	7085	29967	1.00%	0.208%
2	3.964	223	227	237	rVB3	22466	61377	2.05%	0.425%
3	5.426	366	371	381	rVB	29848	83560	2.79%	0.579%
4	6.076	428	435	450	rBV	971931	2055874	68.73%	14.236%
5	6.391	460	466	488	rVB	707947	1491469	49.86%	10.328%
6	6.888	498	515	527	rBV	1181874	2265523	75.73%	15.688%
7	8.563	673	680	696	rBV	1642668	2991433	100.00%	20.714%
8	10.238	838	845	858	rBV	1450769	2745974	91.79%	19.014%
9	11.639	976	983	996	rBV	1608778	2716399	90.81%	18.810%

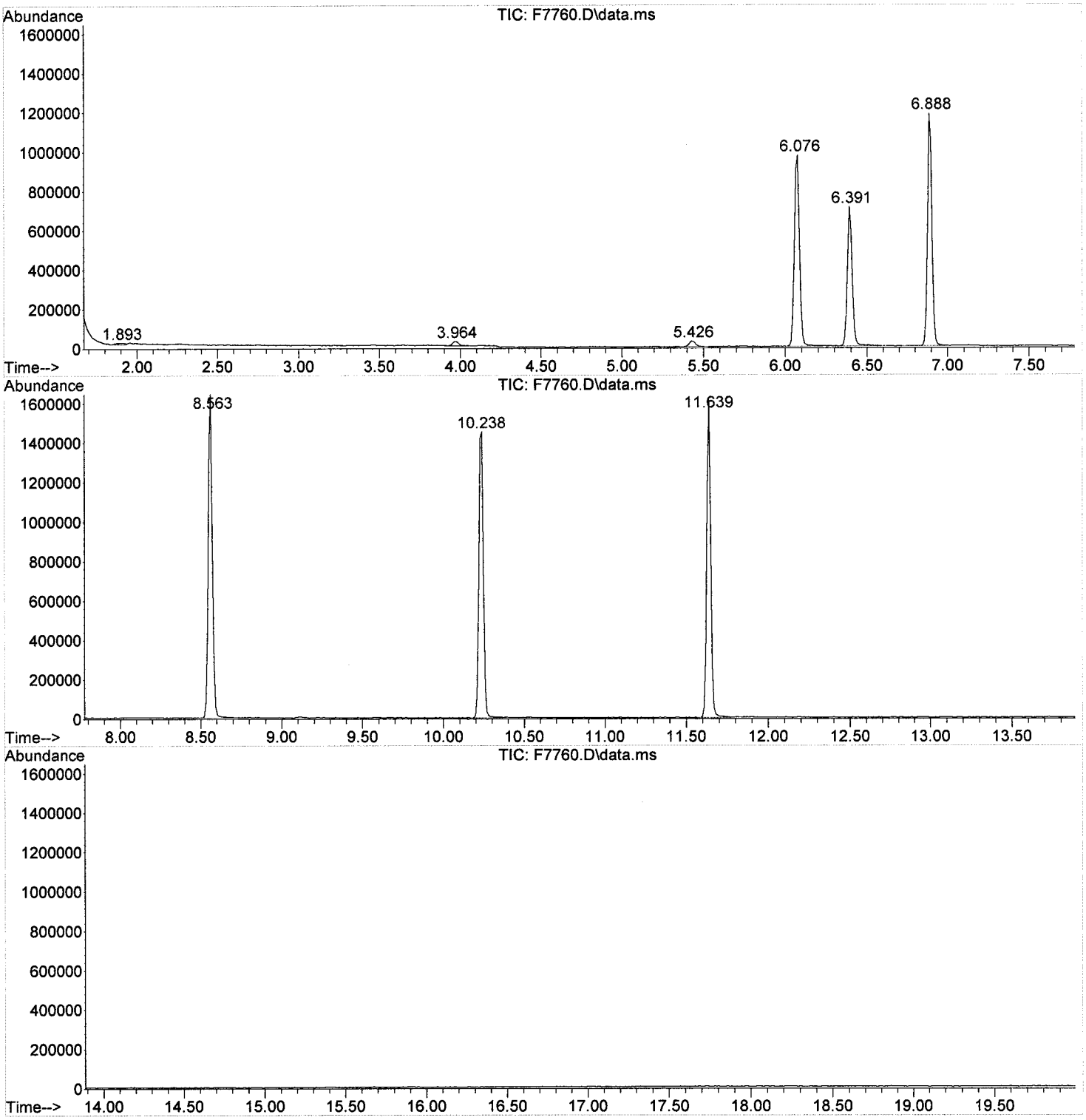
Sum of corrected areas: 14441576

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7760.D
Acq On : 21 Sep 2013 6:55
Operator : XING
Sample : AOC-6/18.5-19,09197-010,S,4.2g,17.7
Misc : EWMA/50_DIVISION_A,09/17/13,09/18/13,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130920-02
Client ID: BLKS130920-02
Date Received:
Date Analyzed: 09/21/2013
Data file: F7751.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.00056
Chloromethane	ND		0.001	0.00029
Vinyl chloride	ND		0.001	0.00039
Bromomethane	ND		0.001	0.00048
Chloroethane	ND		0.001	0.00037
Trichlorofluoromethane	ND		0.001	0.0003
1,1-Dichloroethene	ND		0.001	0.00041
Acetone	ND		0.005	0.00055
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00198
trans-1,2-Dichloroethene	ND		0.001	0.00034
Methyl tert-butyl ether (MTBE)	ND		0.001	0.00025
1,1-Dichloroethane	ND		0.001	0.0003
cis-1,2-Dichloroethene	ND		0.001	0.00028
2-Butanone (MEK)	ND		0.002	0.00029
Bromochloromethane	ND		0.001	0.00025
Chloroform	ND		0.001	0.00027
1,1,1-Trichloroethane	ND		0.001	0.00026
Carbon tetrachloride	ND		0.001	0.00025
1,2-Dichloroethane (EDC)	ND		0.001	0.00022
Benzene	ND		0.001	0.00027
Trichloroethene	ND		0.001	0.00034
1,2-Dichloropropane	ND		0.001	0.00026
1,4-Dioxane	ND		0.200	0.011
Bromodichloromethane	ND		0.001	0.00021
cis-1,3-Dichloropropene	ND		0.001	0.00021
4-Methyl-2-pentanone (MIBK)	ND		0.001	0.00021

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130920-02
Client ID: BLKS130920-02
Date Received:
Date Analyzed: 09/21/2013
Data file: F7751.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.00025
trans-1,3-Dichloropropene	ND		0.001	0.00022
1,1,2-Trichloroethane	ND		0.001	0.00021
Tetrachloroethene	ND		0.001	0.00025
2-Hexanone	ND		0.001	0.00027
Dibromochloromethane	ND		0.001	0.00021
1,2-Dibromoethane (EDB)	ND		0.001	0.0002
Chlorobenzene	ND		0.001	0.00028
Ethylbenzene	ND		0.001	0.00028
Total Xylenes	ND		0.002	0.0008
Styrene	ND		0.001	0.00022
Bromoform	ND		0.001	0.00024
Isopropylbenzene	ND		0.001	0.00029
1,1,2,2-Tetrachloroethane	ND		0.001	0.00023
1,3-Dichlorobenzene	ND		0.001	0.00024
1,4-Dichlorobenzene	ND		0.001	0.0002
1,2-Dichlorobenzene	ND		0.001	0.00028
1,2-Dibromo-3-chloropropane	ND		0.001	0.0002
1,2,4-Trichlorobenzene	ND		0.001	0.00026
1,2,3-Trichlorobenzene	ND		0.001	0.00032
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.00037
Methyl acetate	ND		0.001	0.00022
Cyclohexane	ND		0.005	0.00039
Methylcyclohexane	ND		0.005	0.00036
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.00022

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130920-02
Client ID: BLKS130920-02
Date Received:
Date Analyzed: 09/21/2013
Date File: F7751.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7751.D
Acq On : 21 Sep 2013 2:21
Operator : XING
Sample : BLKS130920-02,BLKS130920-02,S,5g,0
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 23 10:31:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	575982	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	750779	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	691120	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	696802	47.04	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 94.08%			
41) Toluene-d8	8.563	98	1050389	44.26	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 88.52%			
59) Bromofluorobenzene	11.639	95	534460	41.59	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 83.18%			

Target Compounds	Qvalue

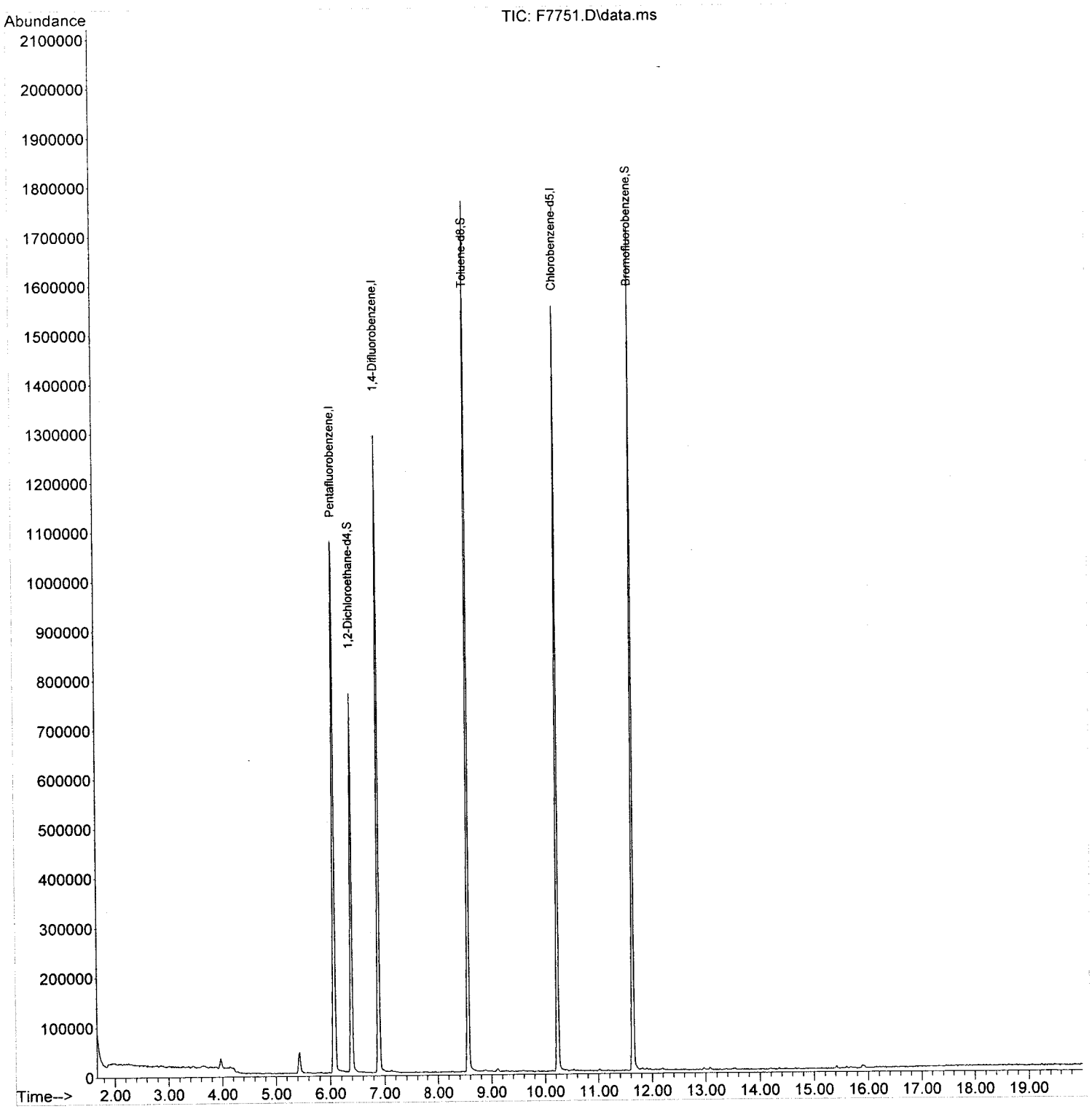
(#) = qualifier out of range (m) = manual integration (+) = signals summed

E13-09197 0167

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7751.D
Acq On : 21 Sep 2013 2:21
Operator : XING
Sample : BLKS130920-02,BLKS130920-02,S,5g,0
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 23 10:31:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Aug 27 13:55:17 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7751.D
Acq On : 21 Sep 2013 2:21
Operator : XING
Sample : BLKS130920-02,BLKS130920-02,S,5g,0
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7751.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.964	222	227	233	rBV3	20155	50919	1.58%	0.328%
2	5.436	366	372	383	rBV	42412	119143	3.70%	0.768%
3	6.066	427	434	448	rBV	1075624	2320928	72.12%	14.970%
4	6.391	459	466	478	rVB	765473	1569760	48.78%	10.125%
5	6.888	506	515	528	rBV	1288269	2453573	76.24%	15.825%
6	8.563	674	680	698	rBV	1762263	3218277	100.00%	20.758%
7	10.228	839	844	854	rBV	1548094	2916494	90.62%	18.811%
8	11.639	975	983	994	rBV	1703470	2854851	88.71%	18.414%

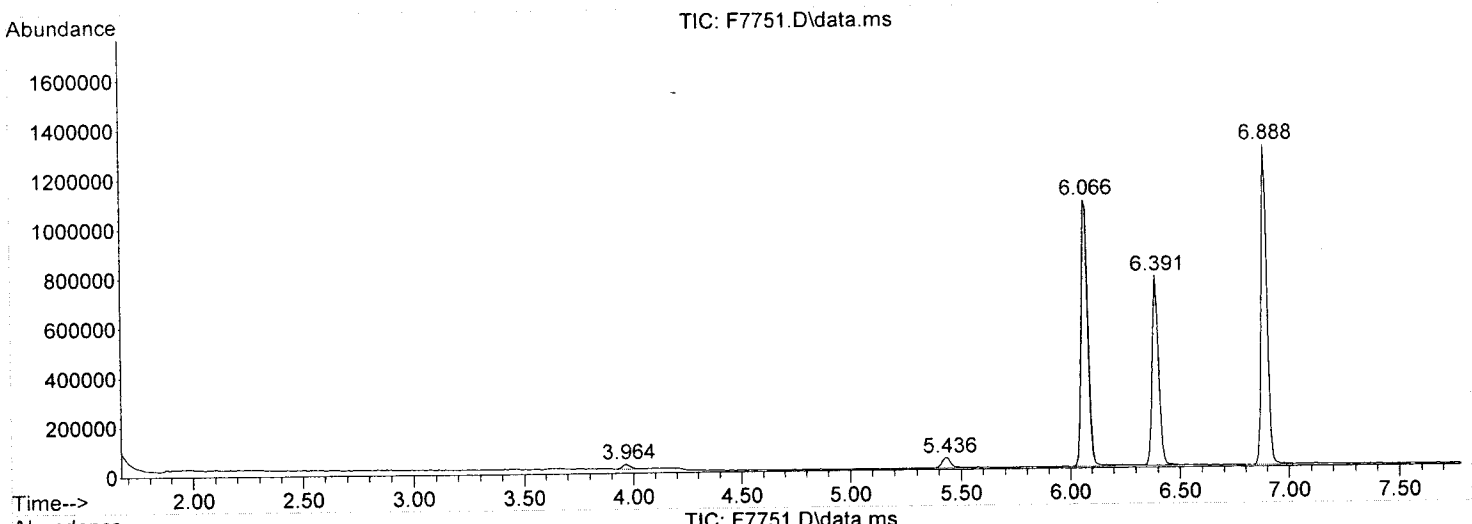
Sum of corrected areas: 15503945

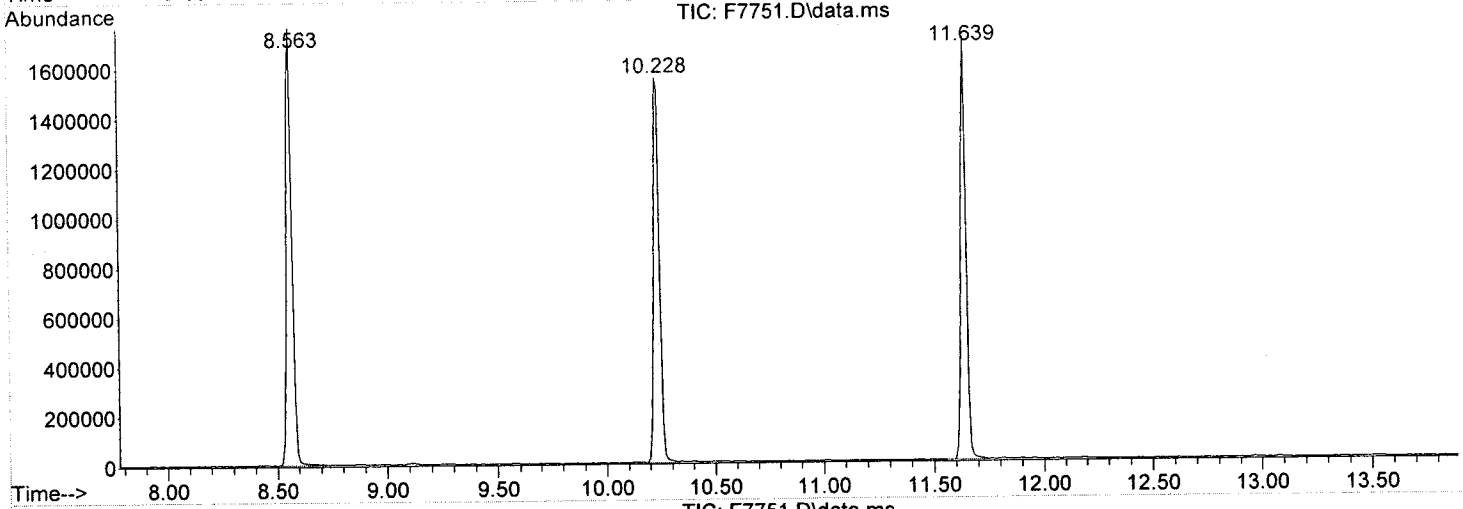
LSC Report - Integrated Chromatogram

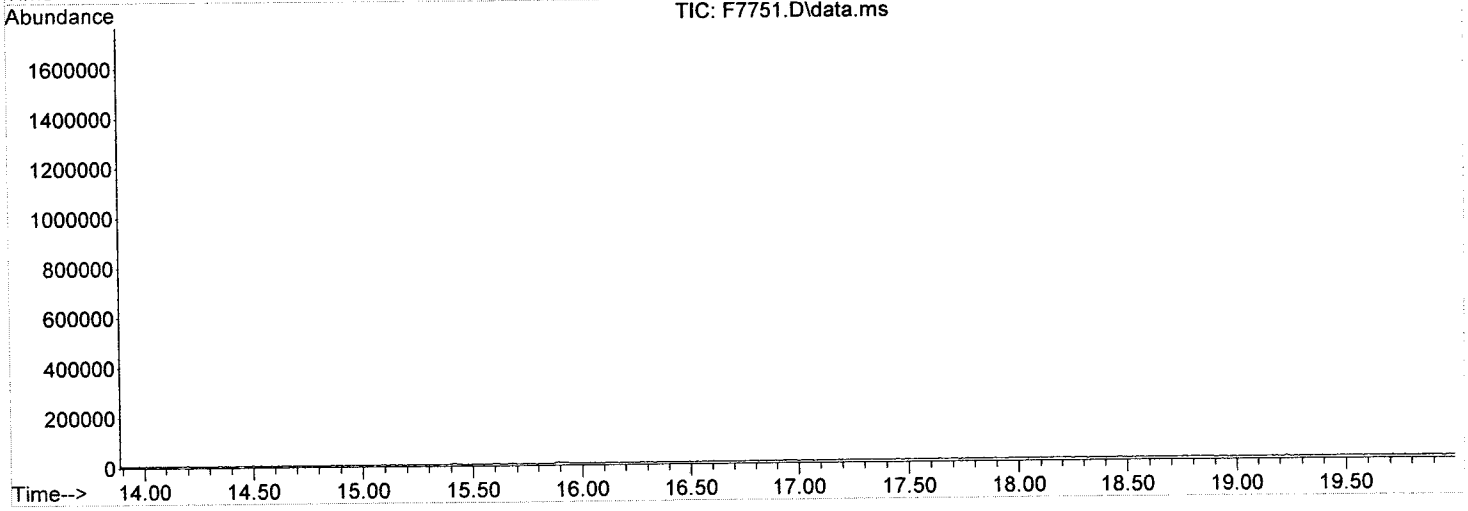
Data Path : C:\msdchem\1\DATA\09-20-13\
Data File : F7751.D
Acq On : 21 Sep 2013 2:21
Operator : XING
Sample : BLKS130920-02,BLKS130920-02,S,5g,0
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0823.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130920
Client ID: BLKS130920
Date Received:
Date Analyzed: 09/20/2013
Data file: J9358.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.032
Chloromethane	ND		0.050	0.020
Vinyl chloride	ND		0.050	0.026
Bromomethane	ND		0.050	0.022
Chloroethane	ND		0.050	0.023
Trichlorofluoromethane	ND		0.050	0.028
1,1-Dichloroethene	ND		0.050	0.020
Acetone	ND		0.100	0.027
Carbon disulfide	ND		0.050	0.023
Methylene chloride	ND		0.100	0.099
trans-1,2-Dichloroethene	ND		0.050	0.019
Methyl tert-butyl ether (MTBE)	ND		0.050	0.036
1,1-Dichloroethane	ND		0.050	0.014
cis-1,2-Dichloroethene	ND		0.050	0.014
2-Butanone (MEK)	ND		0.050	0.028
Bromochloromethane	ND		0.050	0.014
Chloroform	ND		0.050	0.019
1,1,1-Trichloroethane	ND		0.050	0.016
Carbon tetrachloride	ND		0.050	0.018
1,2-Dichloroethane (EDC)	ND		0.050	0.019
Benzene	ND		0.050	0.013
Trichloroethene	ND		0.050	0.011
1,2-Dichloropropane	ND		0.050	0.012
1,4-Dioxane	ND		10.0	0.950
Bromodichloromethane	ND		0.050	0.020
cis-1,3-Dichloropropene	ND		0.050	0.013
4-Methyl-2-pentanone (MIBK)	ND		0.050	0.015

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130920
Client ID: BLKS130920
Date Received:
Date Analyzed: 09/20/2013
Data file: J9358.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.050	0.014
trans-1,3-Dichloropropene	ND		0.050	0.013
1,1,2-Trichloroethane	ND		0.050	0.022
Tetrachloroethene	ND		0.050	0.012
2-Hexanone	ND		0.050	0.013
Dibromochloromethane	ND		0.050	0.012
1,2-Dibromoethane (EDB)	ND		0.050	0.016
Chlorobenzene	ND		0.050	0.014
Ethylbenzene	ND		0.050	0.018
Total Xylenes	ND		0.100	0.033
Styrene	ND		0.050	0.020
Bromoform	ND		0.050	0.012
Isopropylbenzene	ND		0.050	0.016
1,1,2,2-Tetrachloroethane	ND		0.050	0.013
1,3-Dichlorobenzene	ND		0.050	0.014
1,4-Dichlorobenzene	ND		0.050	0.015
1,2-Dichlorobenzene	ND		0.050	0.013
1,2-Dibromo-3-chloropropane	ND		0.100	0.031
1,2,4-Trichlorobenzene	ND		0.050	0.020
1,2,3-Trichlorobenzene	ND		0.050	0.022
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.025
Methyl acetate	ND		0.050	0.030
Cyclohexane	ND		0.050	0.019
Methylcyclohexane	ND		0.050	0.018
1,3-Dichloropropene (cis- and trans-)	ND		0.050	0.013

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130920
Client ID: BLKS130920
Date Received:
Date Analyzed: 09/20/2013
Data file: J9358.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-20-13\
Data File : J9358.D
Acq On : 20 Sep 2013 11:14
Operator : MEI
Sample : BLKS130920,BLKS130920,S,0.1g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 20 14:01:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 11 10:10:11 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.09	168	177074	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.91	114	298100	50.00	UG	0.00
50) Chlorobenzene-d5	10.25	117	355715	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.41	65	126423	63.90	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 127.80%			
41) Toluene-d8	8.58	98	374498	45.83	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 91.66%			
59) Bromofluorobenzene	11.65	95	246767	43.43	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 86.86%			

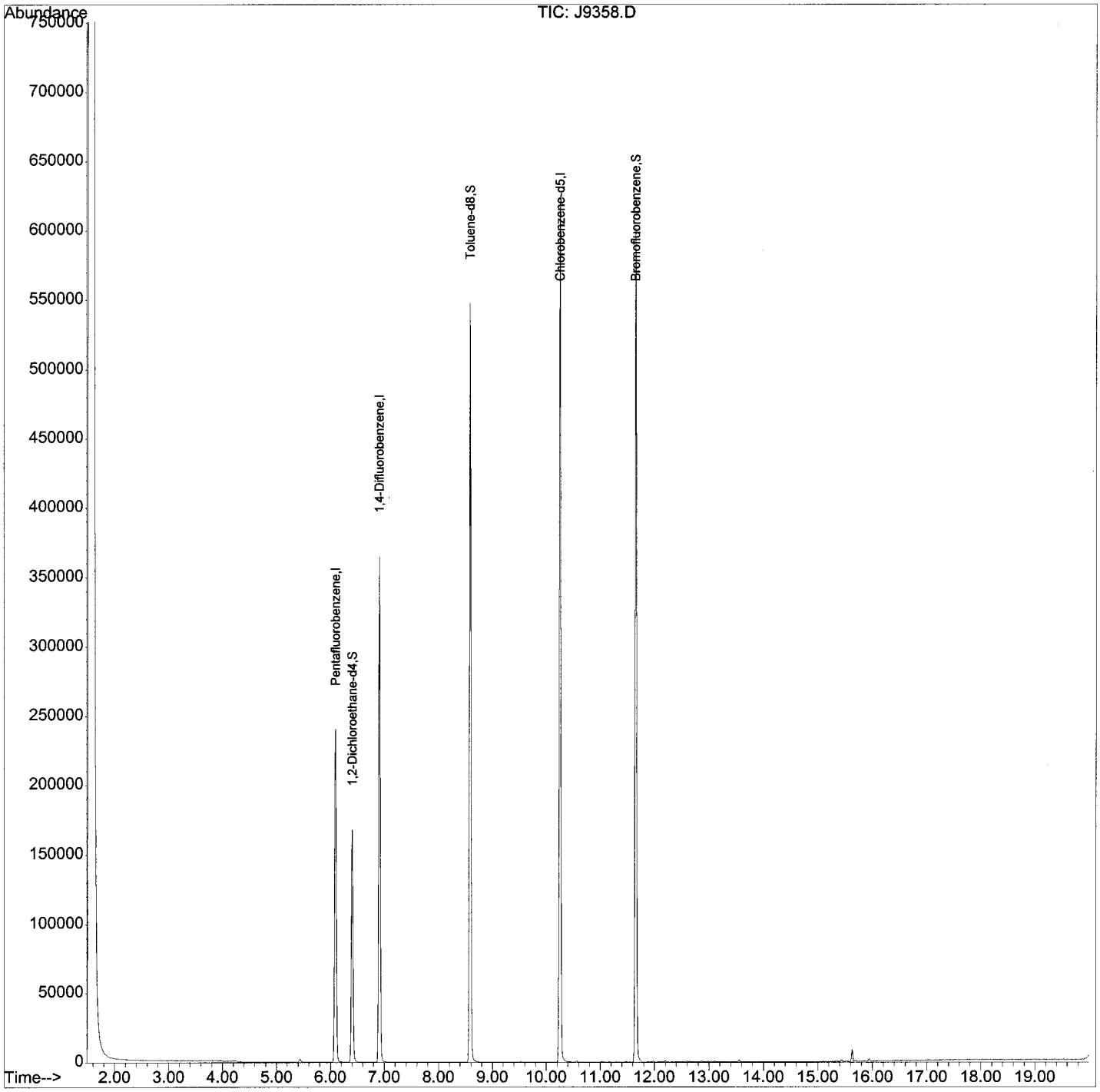
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-20-13\
Data File : J9358.D
Acq On : 20 Sep 2013 11:14
Operator : MEI
Sample : BLKS130920,BLKS130920,S,0.1g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 20 14:01:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 11 10:10:11 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\09-20-13\
Data File : J9358.D
Acq On : 20 Sep 2013 11:14
Operator : MEI
Sample : BLKS130920,BLKS130920,S,0.1g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JM091013.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.093	450	456	465	rBB	240409	519508	45.30%	10.533%
2	6.407	480	487	503	rBB	167964	358629	31.27%	7.271%
3	6.913	531	537	557	rBB	364776	722191	62.97%	14.643%
4	8.584	693	702	721	rBB	547607	1033515	90.11%	20.955%
5	10.255	859	867	881	rBB	625451	1138221	99.24%	23.078%
6	11.652	996	1005	1019	rBB	601584	1146900	100.00%	23.254%
7	15.621	1393	1397	1401	rBB	8126	13072	1.14%	0.265%

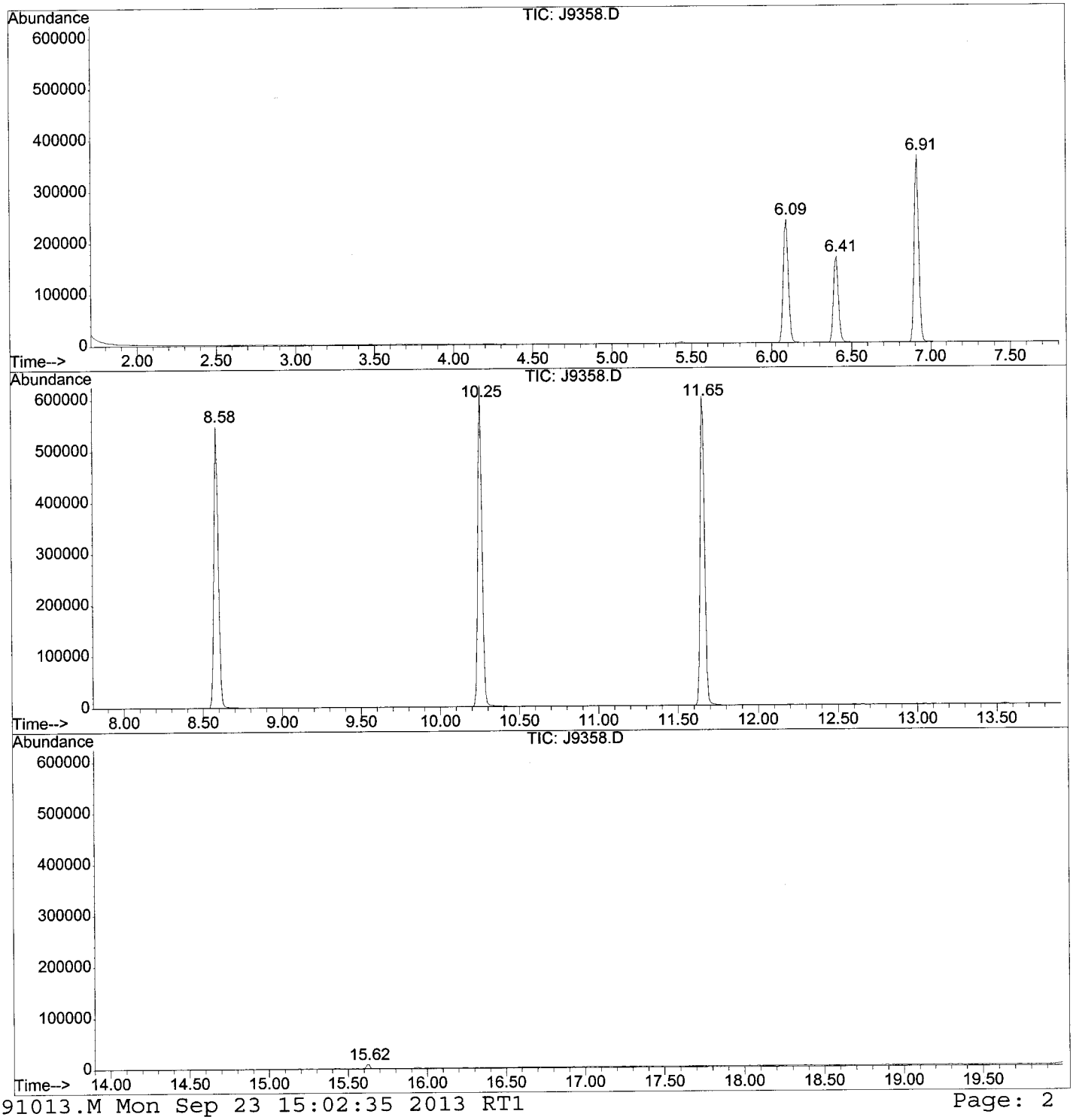
Sum of corrected areas: 4932036

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\09-20-13\
Data File : J9358.D
Acq On : 20 Sep 2013 11:14
Operator : MEI
Sample : BLKS130920,BLKS130920,S,0.1g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JM091013.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/20/2013

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNA2		C0112.D	N/A	N/A	N/A	N/A	N/A	N/A
BLKS130919-03	SOIL	C0132.D	52	56	80	73	49	94
LCSS130919-03	SOIL	C0133.D	48	51	79	72	45	91
E13-09196-001MS	SOIL	C0134.D	58	62	64	69	65	72
E13-09196-001MSD	SOIL	C0135.D	63	65	68	62	65	70
E13-09196-001	SOIL	C0136.D	N/A	N/A	65	64	N/A	74
E13-09196-002	SOIL	C0137.D	N/A	N/A	57	59	N/A	58
E13-09196-003	SOIL	C0138.D	N/A	N/A	55	53	N/A	44
E13-09196-005	SOIL	C0140.D	N/A	N/A	52	53	N/A	59
E13-09197-010	SOIL	C0141.D	N/A	N/A	51	54	N/A	87
E13-08977-004	SOIL	C0142.D	N/A	N/A	65	68	N/A	68
E13-09197-004	SOIL	C0143.D	N/A	N/A	35	38	N/A	35
E13-09197-005	SOIL	C0144.D	N/A	N/A	56	56	N/A	56
E13-09197-009	SOIL	C0145.D	N/A	N/A	26	36	N/A	32

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNA2		C0202.D	N/A	N/A	N/A	N/A	N/A	N/A
E13-08667-002	SOIL	C0235.D	N/A	N/A	72	76	N/A	79
E13-08667-004	SOIL	C0236.D	N/A	N/A	63	68	N/A	N/A
E13-08667-006	SOIL	C0237.D	N/A	N/A	72	80	N/A	72
E13-08667-007	SOIL	C0238.D	N/A	N/A	81	87	N/A	81
E13-08673-011	SOIL	C0239.D	N/A	N/A	60	70	N/A	68
E13-09197-007	SOIL	C0240.D	N/A	N/A	62	69	N/A	71

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130919-03
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0133.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	50.0	36.5	73		40 - 140
Pyridine	50.0	32.9	66		20 - 120
Benzaldehyde	50.0	23.2	46		10 - 110
Phenol	50.0	39.0	78		30 - 140
Aniline	50.0	36.2	72		40 - 140
Bis(2-chloroethyl) ether	50.0	38.6	77		40 - 140
2-Chlorophenol	50.0	32.3	65		30 - 140
1,3-Dichlorobenzene	50.0	32.6	65		40 - 140
1,4-Dichlorobenzene	50.0	32.7	65		40 - 140
Benzyl alcohol	50.0	19.9	40		40 - 140
1,2-Dichlorobenzene	50.0	32.9	66		40 - 140
2-Methylphenol	50.0	43.4	87		30 - 140
Bis(2-chloroisopropyl) ether	50.0	42.7	85		40 - 140
4-Methylphenol	50.0	36.8	74		30 - 140
N-Nitrosodi-n-propylamine	50.0	37.3	75		40 - 140
Acetophenone	50.0	37.8	76		40 - 140
3-Methylphenol	50.0	36.8	74		30 - 140
Hexachloroethane	50.0	33.8	68		40 - 140
Nitrobenzene	50.0	37.7	75		40 - 140
Isophorone	50.0	33.1	66		40 - 140
2-Nitrophenol	50.0	35.5	71		30 - 140
2,4-Dimethylphenol	50.0	35.7	71		30 - 140
Bis(2-chloroethoxy) methane	50.0	37.0	74		40 - 140
Benzoic acid	50.0	65.8	132		30 - 140
2,4-Dimethylaniline	50.0	29.1	58		40 - 140
2,4-Dichlorophenol	50.0	33.9	68		30 - 140
1,2,4-Trichlorobenzene	50.0	33.0	66		40 - 140
Naphthalene	50.0	35.3	71		40 - 140
4-Chloroaniline	50.0	32.7	65		40 - 140
Hexachlorobutadiene	50.0	33.0	66		40 - 140
Caprolactam	50.0	42.7	85		40 - 140
4-Chloro-3-methylphenol	50.0	33.7	67		30 - 140
2-Methylnaphthalene	50.0	33.6	67		40 - 140
Hexachlorocyclopentadiene	50.0	8.4	17		5 - 105
2,4,6-Trichlorophenol	50.0	30.7	61		30 - 140
2,4,5-Trichlorophenol	50.0	27.9	56		30 - 140
1,1'-Biphenyl	50.0	37.0	74		40 - 140
2-Chloronaphthalene	50.0	34.2	68		40 - 140
2-Nitroaniline	50.0	40.5	81		40 - 140
Dimethyl phthalate	50.0	35.1	70		40 - 140
2,6-Dinitrotoluene	50.0	31.8	64		40 - 140
Acenaphthylene	50.0	33.3	67		40 - 140
3-Nitroaniline	50.0	32.4	65		40 - 140
Acenaphthene	50.0	35.2	70		40 - 140
2,4-Dinitrophenol	50.0	40.7	81		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130919-03
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0133.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	50.0	30.6	61		30 - 140
2,4-Dinitrotoluene	50.0	33.2	66		40 - 140
Dibenzofuran	50.0	33.5	67		40 - 140
Diethyl phthalate	50.0	34.2	68		40 - 140
Fluorene	50.0	35.5	71		40 - 140
4-Chlorophenyl phenyl ether	50.0	34.2	68		40 - 140
4-Nitroaniline	50.0	34.7	69		40 - 140
1,2,4,5-Tetrachlorobenzene	50.0	33.6	67		40 - 140
2,3,4,6-Tetrachlorophenol	50.0	29.9	60		40 - 140
4,6-Dinitro-2-methylphenol	50.0	37.3	75		10 - 110
N-Nitrosodiphenylamine	50.0	36.6	73		40 - 140
1,2-Diphenylhydrazine	50.0	35.6	71		40 - 140
4-Bromophenyl phenyl ether	50.0	34.4	69		40 - 140
Hexachlorobenzene	50.0	33.8	68		40 - 140
Atrazine	50.0	28.4	57		20 - 120
Pentachlorophenol	50.0	20.9	42		30 - 140
Phenanthrene	50.0	34.8	70		40 - 140
Anthracene	50.0	35.5	71		40 - 140
Carbazole	50.0	31.7	63		40 - 140
Di-n-butyl phthalate	50.0	36.5	73		40 - 140
Fluoranthene	50.0	30.5	61		40 - 140
Benzidine	50.0	7.1	14		5 - 105
Pyrene	50.0	45.2	90		40 - 140
3,3'-Dimethylbenzidine	50.0	12.9	26		5 - 105
Butyl benzyl phthalate	50.0	49.3	99		40 - 140
3,3'-Dichlorobenzidine	50.0	46.4	93		40 - 140
Benzo[a]anthracene	50.0	44.0	88		40 - 140
Chrysene	50.0	30.1	60		40 - 140
Bis(2-ethylhexyl) phthalate	50.0	54.8	110		40 - 140
Di-n-octyl phthalate	50.0	66.0	132		40 - 140
Benzo[b]fluoranthene	50.0	55.0	110		40 - 140
Benzo[k]fluoranthene	50.0	50.5	101		40 - 140
Benzo[a]pyrene	50.0	51.4	103		40 - 140
Indeno[1,2,3-cd]pyrene	50.0	48.3	97		40 - 140
Dibenz[a,h]anthracene	50.0	46.2	92		40 - 140
Benzo[g,h,i]perylene	50.0	45.4	91		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09196-001
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
MS Data file: C0134.D
MSD Data file: C0135.D

GC/MS Column: DB-5
Sample wt/vol: 15.15g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	50.0	0.00	34.00	68		34.00	68		0		40-140/30
Pyridine	50.0	0.00	29.00	58		28.10	56		3		20-120/30
Benzaldehyde	50.0	0.00	9.90	20		10.50	21		6		10-110/30
Phenol	50.0	0.00	48.10	96		50.50	101		5		30-140/30
Aniline	50.0	0.00	20.00	40		21.00	42		5		40-140/30
Bis(2-chloroethyl) ether	50.0	0.00	39.90	80		42.60	85		7		40-140/30
2-Chlorophenol	50.0	0.00	41.40	83		42.80	86		3		30-140/30
1,3-Dichlorobenzene	50.0	0.00	40.30	81		40.30	81		0		40-140/30
1,4-Dichlorobenzene	50.0	0.00	42.60	85		43.30	87		2		40-140/30
Benzyl alcohol	50.0	0.00	41.40	83		41.80	84		1		40-140/30
1,2-Dichlorobenzene	50.0	0.00	42.00	84		41.50	83		1		40-140/30
2-Methylphenol	50.0	0.00	41.80	84		44.10	88		5		30-140/30
Bis(2-chloroisopropyl) ether	50.0	0.00	43.90	88		44.70	89		2		40-140/30
4-Methylphenol	50.0	0.00	40.90	82		42.20	84		3		30-140/30
N-Nitrosodi-n-propylamine	50.0	0.00	39.60	79		40.40	81		2		40-140/30
Acetophenone	50.0	0.00	45.10	90		46.70	93		3		40-140/30
3-Methylphenol	50.0	0.00	40.90	82		42.20	84		3		30-140/30
Hexachloroethane	50.0	0.00	40.50	81		42.00	84		4		40-140/30
Nitrobenzene	50.0	0.00	43.00	86		44.90	90		4		40-140/30
Isophorone	50.0	0.00	22.50	45		21.70	43		4		40-140/30
2-Nitrophenol	50.0	0.00	44.50	89		45.80	92		3		30-140/30
2,4-Dimethylphenol	50.0	0.00	46.00	92		46.00	92		0		30-140/30
Bis(2-chloroethoxy) methane	50.0	0.00	44.50	89		42.90	86		4		40-140/30
Benzoic acid	50.0	0.00	44.20	88		56.80	114		25		30-140/30
2,4-Dimethylaniline	50.0	0.00	20.10	40		20.10	40		0		40-140/30
2,4-Dichlorophenol	50.0	0.00	41.70	83		43.40	87		4		30-140/30
1,2,4-Trichlorobenzene	50.0	0.00	40.00	80		41.70	83		4		40-140/30
Naphthalene	50.0	0.00	40.70	81		41.00	82		1		40-140/30
4-Chloroaniline	50.0	0.00	29.80	60		31.20	62		5		40-140/30
Hexachlorobutadiene	50.0	0.00	41.90	84		44.20	88		5		40-140/30
Caprolactam	50.0	0.00	44.40	89		47.20	94		6		40-140/30
4-Chloro-3-methylphenol	50.0	0.00	37.80	76		45.40	91		18		30-140/30
2-Methylnaphthalene	50.0	1.60	38.20	73		41.80	80		9		40-140/30
Hexachlorocyclopentadiene	50.0	0.00	4.00	8		3.20	6		22		5-105/30
2,4,6-Trichlorophenol	50.0	0.00	43.60	87		41.60	83		5		30-140/30
2,4,5-Trichlorophenol	50.0	0.00	38.60	77		38.50	77		0		30-140/30
1,1'-Biphenyl	50.0	0.00	48.10	96		44.00	88		9		40-140/30
2-Chloronaphthalene	50.0	0.00	42.80	86		40.60	81		5		40-140/30
2-Nitroaniline	50.0	0.00	41.50	83		42.60	85		3		40-140/30
Dimethyl phthalate	50.0	0.00	45.50	91		43.20	86		5		40-140/30
2,6-Dinitrotoluene	50.0	0.00	39.90	80		40.40	81		1		40-140/30
Acenaphthylene	50.0	0.00	39.90	80		40.70	81		2		40-140/30
3-Nitroaniline	50.0	0.00	42.70	85		46.90	94		9		40-140/30
Acenaphthene	50.0	0.00	48.10	96		49.10	98		2		40-140/30
2,4-Dinitrophenol	50.0	0.00	32.40	65		34.90	70		7		5-105/30

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09196-001
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
MS Data file: C0134.D
MSD Data file: C0135.D

GC/MS Column: DB-5
Sample wt/vol: 15.15g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	50.0	0.00	31.80	64		32.20	64		1		30-140/30
2,4-Dinitrotoluene	50.0	0.00	43.60	87		43.70	87		0		40-140/30
Dibenzofuran	50.0	0.00	42.60	85		41.60	83		2		40-140/30
Diethyl phthalate	50.0	0.00	44.00	88		40.60	81		8		40-140/30
Fluorene	50.0	0.00	40.20	80		40.00	80		0		40-140/30
4-Chlorophenyl phenyl ether	50.0	0.00	40.70	81		40.20	80		1		40-140/30
4-Nitroaniline	50.0	0.00	30.20	60		30.30	61		0		40-140/30
1,2,4,5-Tetrachlorobenzene	50.0	0.00	44.10	88		41.20	82		7		40-140/30
2,3,4,6-Tetrachlorophenol	50.0	0.00	34.10	68		33.40	67		2		40-140/30
4,6-Dinitro-2-methylphenol	50.0	0.00	34.60	69		35.80	72		3		10-110/30
N-Nitrosodiphenylamine	50.0	0.00	46.60	93		45.20	90		3		40-140/30
1,2-Diphenylhydrazine	50.0	0.00	39.80	80		42.30	85		6		40-140/30
4-Bromophenyl phenyl ether	50.0	0.00	44.70	89		45.00	90		1		40-140/30
Hexachlorobenzene	50.0	0.00	42.20	84		44.50	89		5		40-140/30
Atrazine	50.0	0.00	13.10	26		10.90	22		18		20-120/30
Pentachlorophenol	50.0	0.00	26.80	54		29.50	59		10		30-140/30
Phenanthrene	50.0	13.50	41.80	57		50.10	73		18		40-140/30
Anthracene	50.0	1.00	41.00	80		42.10	82		3		40-140/30
Carbazole	50.0	0.00	38.20	76		39.00	78		2		40-140/30
Di-n-butyl phthalate	50.0	116.00	155.60	79		150.70	69		3		40-140/30
Fluoranthene	50.0	8.90	46.90	76		47.30	77		1		40-140/30
Benzidine	50.0	0.00	2.90	6		2.90	6		0		5-105/30
Pyrene	50.0	10.20	53.90	87		56.60	93		5		40-140/30
3,3'-Dimethylbenzidine	50.0	0.00	2.90	6		3.60	7		22		5-105/30
Butyl benzyl phthalate	50.0	0.00	61.10	122		55.50	111		10		40-140/30
3,3'-Dichlorobenzidine	50.0	0.00	50.70	101		49.90	100		2		40-140/30
Benzo[a]anthracene	50.0	5.70	56.50	102		56.00	101		1		40-140/30
Chrysene	50.0	9.40	60.40	102		60.10	101		0		40-140/30
Bis(2-ethylhexyl) phthalate	50.0	117.60	163.40	92		164.70	94		1		40-140/30
Di-n-octyl phthalate	50.0	0.00	67.60	135		69.10	138		2		40-140/30
Benzo[b]fluoranthene	50.0	0.00	69.40	139		68.40	137		1		40-140/30
Benzo[k]fluoranthene	50.0	0.00	63.60	127		67.70	135		6		40-140/30
Benzo[a]pyrene	50.0	0.00	62.40	125		62.10	124		0		40-140/30
Indeno[1,2,3-cd]pyrene	50.0	0.00	61.80	124		60.50	121		2		40-140/30
Dibenz[a,h]anthracene	50.0	0.00	62.10	124		60.00	120		3		40-140/30
Benzo[g,h,i]perylene	50.0	0.00	61.50	123		59.90	120		3		40-140/30

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C0132.D

Instrument ID: MSDC

Date Extracted: 09/19/13

Matrix: SOIL

Date Analyzed: 09/20/2013

Time Analyzed: 17:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS130919-03	09/20/2013	17:55
.	E13-09196-001MS	09/20/2013	18:11
.	E13-09196-001MSD	09/20/2013	18:28
C-1_WARE	E13-09196-001	09/20/2013	18:44
C-2_LOAD	E13-09196-002	09/20/2013	19:00
C-3_BLD_	E13-09196-003	09/20/2013	19:16
C-4_IMP.	E13-09196-004	09/20/2013	19:33
C-5_SPHI	E13-09196-005	09/20/2013	19:49
AOC-6/18	E13-09197-010	09/20/2013	20:05
PX4	E13-08977-004	09/20/2013	20:21
AOC-7-2/	E13-09197-004	09/20/2013	20:38
AOC-7-3/	E13-09197-005	09/20/2013	20:54
AOC-12-2	E13-09197-009	09/20/2013	21:10
AOC-8/12.5	E13-09197-007	09/24/2013	22:31

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C9788.D

DFTPP Injection Date : 09/10/2013

Inst ID: MSDC

DFTPP Injection Time: 16:04

m/z	Ion Abudance Criteria	%Relative Abundance		
51	30.0 - 60.0% of mass 198	33.4		
68	Less than 2.0% of mass 69	0.0	(0.0	)1
69	Mass 69 relative abundance	38.5		
70	Less than 2.0% of mass 69	0.1	(0.2	)1
127	40.0 - 60.0% of mass 198	53.8		
197	Less than 1.0% of mass 198	0.0		
198	Base peak, 100% relative abundance	100.0		
199	5.0 - 9.0% of mass 198	6.5		
275	10.0 - 30.0% of mass 198	23.2		
365	Greater than 1.0% of mass 198	1.9		
441	Present, but less than mass 443	11.74	(71.8	)3
442	40.0 - 100.0% of mass 198	75.7		
443	17.0 - 23.0% of mass 442	16.4	(21.6	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN022.13	ICC001BNA1	C9789.D	09/10/2013	16:15
ABN024.13	ICC010BNA1	C9790.D	09/10/2013	16:31
ABN025.13	ICC020BNA1	C9791.D	09/10/2013	16:48
ABN026.13	ICC040BNA1	C9792.D	09/10/2013	17:04
ABN027.13	ICC080BNA1	C9793.D	09/10/2013	17:21
ABN028.13	ICC120BNA1	C9794.D	09/10/2013	17:37
ABN036.13	ICV040BNA1	C9795.D	09/10/2013	17:53
ABN035.13	ICC120BNA2	C9796.D	09/10/2013	18:10
ABN034.13	ICC080BNA2	C9797.D	09/10/2013	18:26
ABN033.13	ICC040BNA2	C9798.D	09/10/2013	18:42
ABN032.13	ICC020BNA2	C9799.D	09/10/2013	18:59
ABN031.13	ICC010BNA2	C9800.D	09/10/2013	19:15
ABN029.13	ICC001BNA2	C9801.D	09/10/2013	19:32
ABN037.13	ICV040BNA2	C9802.D	09/10/2013	19:48

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0110.D

DFTPP Injection Date : 09/20/2013

Inst ID: MSDC

DFTPP Injection Time: 11:47

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	47.2	
70	Less than 2.0% of mass 69	0.5	(1.0)1
127	40.0 - 60.0% of mass 198	58.4	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.0	
275	10.0 - 30.0% of mass 198	24.1	
365	Greater than 1.0% of mass 198	1.8	
441	Present, but less than mass 443	9.29	(72.1)3
442	40.0 - 100.0% of mass 198	63.8	
443	17.0 - 23.0% of mass 442	12.9	(20.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN036.13	CCV040BNA1	C0111.D	09/20/2013	11:57
ABN037.13	CCV040BNA2	C0112.D	09/20/2013	12:13
.	BLKS130919-03	C0132.D	09/20/2013	17:39
.	LCSS130919-03	C0133.D	09/20/2013	17:55
.	E13-09196-001MS	C0134.D	09/20/2013	18:11
.	E13-09196-001MSD	C0135.D	09/20/2013	18:28
C-1_WARE	E13-09196-001	C0136.D	09/20/2013	18:44
C-2_LOAD	E13-09196-002	C0137.D	09/20/2013	19:00
C-3_BLD_	E13-09196-003	C0138.D	09/20/2013	19:16
C-4_IMP.	E13-09196-004	C0139.D	09/20/2013	19:33
C-5_SPHI	E13-09196-005	C0140.D	09/20/2013	19:49
AOC-6/18	E13-09197-010	C0141.D	09/20/2013	20:05
PX4	E13-08977-004	C0142.D	09/20/2013	20:21
AOC-7-2/	E13-09197-004	C0143.D	09/20/2013	20:38
AOC-7-3/	E13-09197-005	C0144.D	09/20/2013	20:54
AOC-12-2	E13-09197-009	C0145.D	09/20/2013	21:10

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0200.D

DFTPP Injection Date : 09/24/2013

Inst ID: MSDC

DFTPP Injection Time: 11:33

m/z	Ion Abudance Criteria	%Relative Abundance		
51	30.0 - 60.0% of mass 198	42.1		
68	Less than 2.0% of mass 69	0.0	(0.0	)1
69	Mass 69 relative abundance	47.5		
70	Less than 2.0% of mass 69	0.3	(0.6	)1
127	40.0 - 60.0% of mass 198	57.1		
197	Less than 1.0% of mass 198	0.0		
198	Base peak, 100% relative abundance	100.0		
199	5.0 - 9.0% of mass 198	6.2		
275	10.0 - 30.0% of mass 198	22.1		
365	Greater than 1.0% of mass 198	1.7		
441	Present, but less than mass 443	8.35	(74.8	)3
442	40.0 - 100.0% of mass 198	56.1		
443	17.0 - 23.0% of mass 442	11.2	(19.9	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN036.13	CCV040BNA1	C0201.D	09/24/2013	11:44
ABN037.13	CCV040BNA2	C0202.D	09/24/2013	12:16
GP-H-JJ1	E13-08667-002	C0235.D	09/24/2013	21:11
GP-H-JJ1	E13-08667-004	C0236.D	09/24/2013	21:27
GP-H-JJ1	E13-08667-006	C0237.D	09/24/2013	21:43
GP-H-JJ1	E13-08667-007	C0238.D	09/24/2013	21:59
GP-WG-AP	E13-08673-011	C0239.D	09/24/2013	22:15
AOC-8/12.5	E13-09197-007	C0240.D	09/24/2013	22:31

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS2213.M
Title : BNA CALIBRATION METHOD
Last Update : Wed Sep 11 11:43:42 2013
Response Via : Initial Calibration

Calibration Files
1 =C9789.D 10 =C9790.D 20 =C9791.D
40 =C9792.D 80 =C9793.D 120 =C9794.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.871	0.866	0.794	0.781	0.783	0.772	0.811	5.55
3)	T	Pyridine	0.899	1.051	1.030	0.950	0.932	0.884	0.957	7.15
4)	S	2-Fluorophenol	1.322	1.439	1.410	1.397	1.407	1.379	1.392	2.85
5)	T	Benzaldehyde	1.082	0.856	1.077	0.861	0.939	1.066	0.980	11.03
6)	S	Phenol-d5	1.532	1.660	1.729	1.689	1.648	1.616	1.646	4.11
7)	MC	Phenol	1.634	1.727	1.626	1.739	1.628	1.710	1.677	3.19
8)	T	Aniline	0.787	0.728	0.692	0.682	0.649	0.625	0.694	8.37
9)	T	Bis(2-chloroethyl	1.033	0.923	0.862	0.899	0.872	0.827	0.903	7.94
10)	M	2-Chlorophenol	1.773	1.523	1.473	1.496	1.505	1.537	1.551	7.14
11)	T	1,3-Dichlorobenze	1.775	1.641	1.550	1.585	1.509	1.707	1.628	6.16
12)	MC	1,4-Dichlorobenze	1.699	1.641	1.574	1.656	1.582	1.429	1.597	5.93
13)	T	Benzyl alcohol	1.090	0.977	0.964	0.989	0.927	0.988	0.989	5.52
14)	T	1,2-Dichlorobenze	1.643	1.527	1.488	1.520	1.433	1.444	1.509	5.04
15)	T	2-Methylphenol	1.052	1.297	1.259	1.250	1.206	1.194	1.210	7.09
16)	T	Bis(2-chloroisopr	1.562	1.660	1.609	1.573	1.473	1.430	1.551	5.52
17)	T	4-Methylphenol	1.537	1.390	1.337	1.431	1.284	1.344	1.387	6.40
18)	MP	N-Nitrosodi-n-pro	1.129	0.980	0.983	0.960	0.923	0.877	0.975	8.73
19)	T	Acetophenone	2.157	1.887	1.809	1.920	1.743	1.818	1.889	7.70
20)	T	3-Methylphenol	1.542	1.396	1.333	1.431	1.285	1.343	1.388	6.56
21)	T	Hexachloroethane	0.586	0.550	0.515	0.523	0.507	0.513	0.533	5.66
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.301	0.318	0.330	0.323	0.329	0.342	0.324	4.27
25)	T	Nitrobenzene	0.331	0.317	0.299	0.292	0.292	0.288	0.303	5.67
26)	T	Isophorone	0.719	0.650	0.630	0.645	0.589	0.611	0.641	6.97
27)	TC	2-Nitrophenol	0.195	0.182	0.180	0.191	0.173	0.193	0.186	4.65
28)	T	2,4-Dimethylpheno	0.365	0.328	0.323	0.324	0.315	0.321	0.329	5.44
29)	T	Bis(2-chloroethox	0.459	0.382	0.368	0.368	0.362	0.366	0.384	9.73
30)	T	Benzoic acid	0.099	0.094	0.092	0.093	0.115	0.094	0.098	8.92
31)	T	2,4-Dimethylanili	0.477	0.419	0.399	0.426	0.393	0.411	0.421	7.11
32)	TC	2,4-Dichloropheno	0.310	0.266	0.267	0.273	0.261	0.288	0.278	6.68
33)	M	1,2,4-Trichlorobe	0.328	0.299	0.300	0.306	0.283	0.305	0.304	4.78
34)	T	Naphthalene	1.236	1.142	1.079	1.068	1.015	0.994	1.089	8.16
35)	T	4-Chloroaniline	0.629	0.587	0.565	0.575	0.525	0.552	0.572	6.08
36)	T	4-Aminotoluene							0.000	-1.00
37)	TC	Hexachlorobutadie	0.173	0.154	0.149	0.154	0.147	0.155	0.155	6.15
38)	T	Caprolactam	0.110	0.130	0.125	0.121	0.110	0.117	0.119	6.75
39)	T	2-Aminotoluene							0.000	-1.00
40)	MC	4-Chloro-3-methyl	0.347	0.281	0.282	0.278	0.265	0.292	0.291	9.93
41)	T	2-Methylnaphthale	0.813	0.760	0.668	0.686	0.665	0.708	0.717	8.19
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.136	0.148	0.148	0.157	0.163	0.177	0.155	9.13
45)	TC	2,4,6-Trichloroph	0.372	0.317	0.316	0.326	0.321	0.348	0.333	6.68
46)	T	2,4,5-Trichloroph	0.405	0.342	0.350	0.366	0.354	0.385	0.367	6.56
47)	S	2-Fluorobiphenyl	1.328	1.335	1.376	1.344	1.316	1.414	1.352	2.69
48)	T	1,1'-Biphenyl	1.596	1.358	1.397	1.413	1.314	1.462	1.423	6.91
49)	T	2-Chloronaphthale	1.210	1.035	1.060	1.070	1.008	1.126	1.085	6.70
50)	T	2-Nitroaniline	0.272	0.239	0.238	0.238	0.237	0.253	0.246	5.64
51)	T	Dimethyl phthalat	1.287	1.133	1.141	1.172	1.071	1.213	1.169	6.34

52)	T	2,6-Dinitrotoluen	0.271	0.255	0.252	0.260	0.263	0.284	0.264	4.44
53)	T	Acenaphthylene	1.908	1.673	1.684	1.691	1.571	1.636	1.694	6.73
54)	T	3-Nitroaniline	0.369	0.304	0.288	0.295	0.276	0.326	0.310	10.88
55)	MC	Acenaphthene	1.329	1.125	1.099	1.112	1.094	1.090	1.141	8.13
56)	TP	2,4-Dinitrophenol	0.054	0.051	0.050	0.062	0.068	0.057	0.057	11.95
57)	MP	4-Nitrophenol	0.155	0.160	0.155	0.162	0.159	0.152	0.157	2.38
58)	M	2,4-Dinitrotoluen	0.306	0.285	0.296	0.321	0.328	0.346	0.314	7.08
59)	T	Dibenzofuran	1.703	1.485	1.490	1.506	1.451	1.585	1.537	6.03
60)	T	Diethyl phthalate	1.310	1.090	1.087	1.121	1.038	1.189	1.139	8.54
61)	T	Fluorene	1.418	1.230	1.224	1.232	1.172	1.307	1.264	6.87
62)	T	4-Chlorophenyl ph	0.662	0.556	0.562	0.560	0.560	0.605	0.584	7.23
63)	T	4-Nitroaniline	0.319	0.294	0.304	0.312	0.318	0.323	0.311	3.47
64)		1,2,4,5-Tetrachlo	0.630	0.512	0.515	0.538	0.512	0.564	0.545	8.46
65)	T	2,3,4,6-Tetrachlo	0.256	0.252	0.266	0.260	0.274	0.284	0.265	4.54
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.064	0.060	0.070	0.066	0.074	0.085	0.070	12.79
68)	TC	N-Nitrosodiphenyl	0.605	0.544	0.537	0.564	0.578	0.563	0.565	4.35
69)	T	1,2-Diphenylhydra	0.874	0.804	0.771	0.815	0.792	0.802	0.810	4.30
70)	S	2,4,6-Tribromophe	0.129	0.128	0.126	0.127	0.125	0.132	0.128	2.11
71)	T	4-Bromophenyl phe	0.241	0.211	0.202	0.210	0.211	0.222	0.216	6.32
72)	T	Hexachlorobenzene	0.272	0.228	0.220	0.232	0.234	0.252	0.240	7.99
73)	T	Atrazine	0.216	0.206	0.199	0.206	0.205	0.211	0.207	2.83
74)	MC	Pentachlorophenol	0.113	0.134	0.133	0.140	0.143	0.154	0.136	10.10
75)	T	Phenanthrene	1.287	1.056	1.013	1.040	1.042	1.057	1.083	9.38
76)	T	Anthracene	1.223	1.072	1.020	1.072	1.052	1.097	1.089	6.47
77)	T	Carbazole	1.195	1.042	0.993	1.001	0.982	1.006	1.037	7.75
78)	T	Di-n-butyl phthal	1.328	1.193	1.135	1.191	1.178	1.194	1.203	5.42
79)	TC	Fluoranthene	1.347	1.146	1.091	1.112	1.071	1.097	1.144	8.97
80)	T	Benzidine	0.636	0.662	0.812	0.715	0.831	0.697	0.725	10.98
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.487	1.237	1.230	1.292	1.308	1.540	1.349	9.80
84)	S	Terphenyl-d14	0.963	0.997	1.018	1.050	1.076	1.257	1.060	9.83
85)	T	3,3'-Dimethylbenz	1.110	0.829	1.062	0.952	1.083	1.063	1.016	10.47
86)	T	Butyl benzyl phth	0.588	0.517	0.512	0.548	0.545	0.606	0.553	6.78
87)	T	3,3'-Dichlorobenz	0.354	0.386	0.369	0.364	0.328	0.277	0.346	11.22
88)	T	Benzo[a]anthracen	1.262	1.044	1.008	1.048	1.013	1.105	1.080	8.85
89)	T	Chrysene	1.194	1.008	0.985	1.014	0.990	1.029	1.037	7.61
90)	T	Bis(2-ethylhexyl)	0.722	0.673	0.667	0.724	0.735	0.842	0.727	8.64
91)	T	3,3'-Dimethoxyben							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.768	1.763	1.825	1.835	1.633	1.990	1.802	6.48
94)	T	Benzo[b]fluoranth	1.639	1.539	1.587	1.597	1.581	1.753	1.616	4.59
95)	T	Benzo[k]fluoranth	1.475	1.546	1.507	1.421	1.483	1.522	1.492	2.90
96)	TC	Benzo[a]pyrene	1.616	1.432	1.371	1.442	1.414	1.489	1.461	5.83
97)	T	Indeno[1,2,3-cd]p	1.695	1.492	1.647	1.816	1.795	1.878	1.720	8.13
98)	T	Dibenz[a,h]anthra	1.346	1.226	1.315	1.488	1.486	1.574	1.406	9.31
99)	T	Benzo[g,h,i]peryl	1.424	1.300	1.374	1.514	1.507	1.578	1.449	7.08

(#) = Out of Range

CS2213.M Wed Sep 11 11:45:13 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-10-13\
Data File : C9795.D
Acq On : 10 Sep 2013 17:53
Operator : EDM
Sample : ABN036.13,ICV040BNA1,S,30.0g,0.0.5
Misc : NA,09/10/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 10 18:10:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Sep 10 18:08:15 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
2	T	N-Nitrosodimethylamine	0.811	0.774	4.6	107	-0.01
3	T	Pyridine	0.957	0.977	-2.1	111	0.00
4	S	2-Fluorophenol	1.392	1.393	-0.1	108	0.00
5	T	Benzaldehyde	0.980	0.866	11.6	113	0.00
6	S	Phenol-d5	1.646	1.634	0.7	105	0.00
7	MC	Phenol	1.677	1.614	3.8	100	0.00
8	T	Aniline	0.694	0.623	10.2	99	0.00
9	T	Bis(2-chloroethyl) ether	0.903	0.817	9.5	98	0.00
10	M	2-Chlorophenol	1.551	1.469	5.3	106	0.00
11	T	1,3-Dichlorobenzene	1.628	1.596	2.0	109	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.582	0.9	103	0.00
13	T	Benzyl alcohol	0.989	0.946	4.3	103	0.00
14	T	1,2-Dichlorobenzene	1.509	1.503	0.4	107	0.00
15	T	2-Methylphenol	1.210	1.199	0.9	104	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.456	6.1	100	0.00
17	T	4-Methylphenol	1.387	1.364	1.7	103	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	0.893	8.4	101	-0.01
19	T	Acetophenone	1.889	1.841	2.5	104	0.00
20	T	3-Methylphenol	1.388	1.362	1.9	103	0.00
21	T	Hexachloroethane	0.533	0.508	4.7	105	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	109	0.00
24	S	Nitrobenzene-d5	0.324	0.302	6.8	102	0.00
25	T	Nitrobenzene	0.303	0.283	6.6	105	0.00
26	T	Isophorone	0.641	0.596	7.0	100	-0.01
27	TC	2-Nitrophenol	0.186	0.185	0.5	105	0.00
28	T	2,4-Dimethylphenol	0.329	0.314	4.6	105	0.00
29	T	Bis(2-chloroethoxy) methane	0.384	0.363	5.5	107	0.00
30	T	Benzoic acid	0.098	0.088	10.2	102	-0.02
31	T	2,4-Dimethylaniline	0.421	0.350	16.9	89	0.00
32	TC	2,4-Dichlorophenol	0.278	0.268	3.6	107	-0.01
33	M	1,2,4-Trichlorobenzene	0.304	0.305	-0.3	108	0.00
34	T	Naphthalene	1.089	1.042	4.3	106	0.00
35	T	4-Chloroaniline	0.572	0.530	7.3	100	0.00
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.161	-3.9	113	0.00
38	T	Caprolactam	0.119	0.117	1.7	104	-0.02
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.273	6.2	107	-0.01
41	T	2-Methylnaphthalene	0.717	0.678	5.4	108	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00
44	TP	Hexachlorocyclopentadiene	0.155	0.139	10.3	96	0.00
45	TC	2,4,6-Trichlorophenol	0.333	0.367	-10.2	122	0.02

46	T	2,4,5-Trichlorophenol	0.367	0.370	-0.8	109	0.00
47	S	2-Fluorobiphenyl	1.352	1.335	1.3	108	0.00
48	T	1,1'-Biphenyl	1.423	1.415	0.6	108	0.00
49	T	2-Chloronaphthalene	1.085	1.069	1.5	108	0.00
50	T	2-Nitroaniline	0.246	0.238	3.3	108	0.00
51	T	Dimethyl phthalate	1.169	1.182	-1.1	109	0.00
52	T	2,6-Dinitrotoluene	0.264	0.280	-6.1	116	0.00
53	T	Acenaphthylene	1.694	1.681	0.8	108	0.00
54	T	3-Nitroaniline	0.310	0.295	4.8	108	-0.01
55	MC	Acenaphthene	1.141	1.110	2.7	108	0.00
56	TP	2,4-Dinitrophenol	0.057	0.061	-7.0	106	0.00
57	MP	4-Nitrophenol	0.157	0.161	-2.5	107	0.00
58	M	2,4-Dinitrotoluene	0.314	0.331	-5.4	112	0.00
59	T	Dibenzofuran	1.537	1.528	0.6	110	0.00
60	T	Diethyl phthalate	1.139	1.127	1.1	109	0.00
61	T	Fluorene	1.264	1.275	-0.9	112	0.00
62	T	4-Chlorophenyl phenyl ether	0.584	0.589	-0.9	114	0.00
63	T	4-Nitroaniline	0.311	0.319	-2.6	111	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.545	0.530	2.8	107	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.282	-6.4	117	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00
67	T	4,6-Dinitro-2-methylphenol	0.070	0.076	-8.6	127	-0.01
68	TC	N-Nitrosodiphenylamine	0.565	0.565	0.0	111	0.00
69	T	1,2-Diphenylhydrazine	0.810	0.775	4.3	106	0.00
70	S	2,4,6-Tribromophenol	0.128	0.130	-1.6	114	0.00
71	T	4-Bromophenyl phenyl ether	0.216	0.215	0.5	114	0.00
72	T	Hexachlorobenzene	0.240	0.237	1.3	114	0.00
73	T	Atrazine	0.207	0.183	11.6	99	-0.01
74	MC	Pentachlorophenol	0.136	0.145	-6.6	116	0.00
75	T	Phenanthrene	1.083	1.057	2.4	113	0.00
76	T	Anthracene	1.089	1.064	2.3	110	0.00
77	T	Carbazole	1.037	1.054	-1.6	117	0.00
78	T	Di-n-butyl phthalate	1.203	1.219	-1.3	114	0.00
79	TC	Fluoranthene	1.144	1.162	-1.6	116	0.00
80	T	Benzidine	0.725	0.625	13.8	108	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	123	0.00
83	M	Pyrene	1.349	1.271	5.8	121	0.00
84	S	Terphenyl-d14	1.060	1.040	1.9	122	0.00
85	T	3,3'-Dimethylbenzidine	1.016	0.818	19.5	121	0.02
86	T	Butyl benzyl phthalate	0.553	0.530	4.2	119	0.01
87	T	3,3'-Dichlorobenzidine	0.346	0.363	-4.9	123	0.00
88	T	Benzo[a]anthracene	1.080	1.088	-0.7	128	0.00
89	T	Chrysene	1.037	1.006	3.0	122	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.726	0.1	124	0.00
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	119	0.00
93	TC	Di-n-octyl phthalate	1.802	1.962	-8.9	128	0.00
94	T	Benzo[b]fluoranthene	1.616	1.595	1.3	119	-0.01
95	T	Benzo[k]fluoranthene	1.492	1.634	-9.5	137	-0.01
96	TC	Benzo[a]pyrene	1.461	1.422	2.7	118	-0.02
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.712	0.5	113	-0.05
98	T	Dibenz[a,h]anthracene	1.406	1.453	-3.3	117	-0.04
99	T	Benzo[g,h,i]perylene	1.449	1.437	0.8	113	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Wed Sep 11 11:40:33 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\
Data File : C0111.D
Acq On : 20 Sep 2013 11:57
Operator : EDM
Sample : ABN036.13,CCV040BNA1
Misc : NA,09/20/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 20 12:42:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	79	0.00
2	T	N-Nitrosodimethylamine	0.811	0.656	19.1	66	-0.02
3	T	Pyridine	0.957	0.775	19.0	65	-0.01
4	S	2-Fluorophenol	1.392	1.341	3.7	76	0.00
5	T	Benzaldehyde	0.980	0.861	12.1	95	0.00
6	S	Phenol-d5	1.646	1.645	0.1	77	0.00
7	MC	Phenol	1.677	1.613	3.8	73	0.00
8	T	Aniline	0.694	0.652	6.1	76	0.00
9	T	Bis(2-chloroethyl) ether	0.903	0.893	1.1	79	-0.01
10	M	2-Chlorophenol	1.551	1.550	0.1	82	0.00
11	T	1,3-Dichlorobenzene	1.628	1.526	6.3	76	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.621	-1.5	77	0.00
13	T	Benzyl alcohol	0.989	0.906	8.4	73	0.00
14	T	1,2-Dichlorobenzene	1.509	1.475	2.3	77	0.00
15	T	2-Methylphenol	1.210	1.285	-6.2	81	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.573	-1.4	79	-0.01
17	T	4-Methylphenol	1.387	1.333	3.9	74	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	0.958	1.7	79	-0.02
19	T	Acetophenone	1.889	1.873	0.8	77	-0.01
20	T	3-Methylphenol	1.388	1.338	3.6	74	0.00
21	T	Hexachloroethane	0.533	0.522	2.1	79	-0.01
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	84	0.00
24	S	Nitrobenzene-d5	0.324	0.320	1.2	83	-0.01
25	T	Nitrobenzene	0.303	0.305	-0.7	87	0.00
26	T	Isophorone	0.641	0.632	1.4	82	-0.02
27	TC	2-Nitrophenol	0.186	0.194	-4.3	85	0.00
28	T	2,4-Dimethylphenol	0.329	0.312	5.2	80	-0.01
29	T	Bis(2-chloroethoxy) methane	0.384	0.378	1.6	86	-0.01
30	T	Benzoic acid	0.098	0.097	1.0	87	-0.02
31	T	2,4-Dimethylaniline	0.421	0.381	9.5	75	-0.01
32	TC	2,4-Dichlorophenol	0.278	0.260	6.5	80	-0.01
33	M	1,2,4-Trichlorobenzene	0.304	0.292	3.9	80	0.00
34	T	Naphthalene	1.089	1.026	5.8	80	-0.01
35	T	4-Chloroaniline	0.572	0.553	3.3	80	-0.01
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.147	5.2	80	-0.01
38	T	Caprolactam	0.119	0.132	-10.9	91	-0.03
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.284	2.4	85	-0.01
41	T	2-Methylnaphthalene	0.717	0.674	6.0	82	-0.01
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	81	-0.01
44	TP	Hexachlorocyclopentadiene	0.155	0.151	2.6	78	-0.01
45	TC	2,4,6-Trichlorophenol	0.333	0.319	4.2	79	0.00

46	T	2,4,5-Trichlorophenol	0.367	0.367	0.0	81	-0.01
47	S	2-Fluorobiphenyl	1.352	1.348	0.3	81	-0.01
48	T	1,1'-Biphenyl	1.423	1.441	-1.3	83	-0.02
49	T	2-Chloronaphthalene	1.085	1.048	3.4	80	-0.02
50	T	2-Nitroaniline	0.246	0.276	-12.2	94	-0.02
51	T	Dimethyl phthalate	1.169	1.129	3.4	78	-0.02
52	T	2,6-Dinitrotoluene	0.264	0.269	-1.9	84	-0.02
53	T	Acenaphthylene	1.694	1.651	2.5	79	-0.02
54	T	3-Nitroaniline	0.310	0.304	1.9	84	-0.02
55	MC	Acenaphthene	1.141	1.146	-0.4	84	-0.02
56	TP	2,4-Dinitrophenol	0.057	0.056	1.8	72	-0.01
57	MP	4-Nitrophenol	0.157	0.151	3.8	76	-0.01
58	M	2,4-Dinitrotoluene	0.314	0.329	-4.8	83	-0.02
59	T	Dibenzofuran	1.537	1.478	3.8	80	-0.02
60	T	Diethyl phthalate	1.139	1.126	1.1	82	-0.03
61	T	Fluorene	1.264	1.264	0.0	83	-0.02
62	T	4-Chlorophenyl phenyl ether	0.584	0.562	3.8	81	-0.02
63	T	4-Nitroaniline	0.311	0.328	-5.5	85	-0.03
64		1,2,4,5-Tetrachlorobenzene	0.545	0.538	1.3	81	-0.01
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.232	12.5	72	-0.02
66	I	Phenanthrene-d10	1.000	1.000	0.0	80	-0.02
67	T	4,6-Dinitro-2-methylphenol	0.070	0.083	-18.6	100	-0.03
68	TC	N-Nitrosodiphenylamine	0.565	0.575	-1.8	81	-0.03
69	T	1,2-Diphenylhydrazine	0.810	0.866	-6.9	85	-0.03
70	S	2,4,6-Tribromophenol	0.128	0.127	0.8	80	-0.02
71	T	4-Bromophenyl phenyl ether	0.216	0.212	1.9	81	-0.02
72	T	Hexachlorobenzene	0.240	0.236	1.7	81	-0.02
73	T	Atrazine	0.207	0.194	6.3	75	-0.03
74	MC	Pentachlorophenol	0.136	0.121	11.0	69	-0.02
75	T	Phenanthrene	1.083	1.063	1.8	82	-0.02
76	T	Anthracene	1.089	1.101	-1.1	82	-0.03
77	T	Carbazole	1.037	1.024	1.3	82	-0.02
78	T	Di-n-butyl phthalate	1.203	1.235	-2.7	83	-0.03
79	TC	Fluoranthene	1.144	1.135	0.8	82	-0.03
80	T	Benzidine	0.725	0.669	7.7	90	-0.07
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	82	-0.02
83	M	Pyrene	1.349	1.312	2.7	83	-0.04
84	S	Terphenyl-d14	1.060	1.069	-0.8	83	-0.04
85	T	3,3'-Dimethylbenzidine	1.016	0.868	14.6	93	-0.08
86	T	Butyl benzyl phthalate	0.553	0.573	-3.6	85	-0.03
87	T	3,3'-Dichlorobenzidine	0.346	0.400	-15.6	90	-0.02
88	T	Benzo[a]anthracene	1.080	1.089	-0.8	85	-0.02
89	T	Chrysene	1.037	1.032	0.5	83	-0.02
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.803	-10.5	91	-0.03
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	98	-0.02
93	TC	Di-n-octyl phthalate	1.802	2.141	-18.8	115	-0.03
94	T	Benzo[b]fluoranthene	1.616	1.651	-2.2	102	-0.03
95	T	Benzo[k]fluoranthene	1.492	1.603	-7.4	111	-0.03
96	TC	Benzo[a]pyrene	1.461	1.494	-2.3	102	-0.03
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.909	-11.0	104	-0.03
98	T	Dibenz[a,h]anthracene	1.406	1.588	-12.9	105	-0.03
99	T	Benzo[g,h,i]perylene	1.449	1.565	-8.0	102	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Fri Sep 20 12:42:53 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : C0201.D
Acq On : 24 Sep 2013 11:44
Operator : EDM
Sample : ABN036.13,CCV040BNA1
Misc : NA,09/24/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 24 12:12:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	130	-0.01
2	T	N-Nitrosodimethylamine	0.811	0.863	-6.4	143	-0.02
3	T	Pyridine	0.957	1.092	-14.1	149	0.00
4	S	2-Fluorophenol	1.392	1.398	-0.4	130	0.00
5	T	Benzaldehyde	0.980	0.880	10.2	110	0.00
6	S	Phenol-d5	1.646	1.838	-11.7	141	0.00
7	MC	Phenol	1.677	1.818	-8.4	135	0.00
8	T	Aniline	0.694	0.657	5.3	125	-0.01
9	T	Bis(2-chloroethyl) ether	0.903	1.057	-17.1	152	-0.01
10	M	2-Chlorophenol	1.551	1.542	0.6	134	0.00
11	T	1,3-Dichlorobenzene	1.628	1.515	6.9	124	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.563	2.1	122	0.00
13	T	Benzyl alcohol	0.989	0.819	17.2	107	0.00
14	T	1,2-Dichlorobenzene	1.509	1.474	2.3	126	0.00
15	T	2-Methylphenol	1.210	1.303	-7.7	135	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.703	-9.8	140	-0.01
17	T	4-Methylphenol	1.387	1.320	4.8	119	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	1.158	-18.8	156	-0.02
19	T	Acetophenone	1.889	2.017	-6.8	136	-0.01
20	T	3-Methylphenol	1.388	1.425	-2.7	129	0.00
21	T	Hexachloroethane	0.533	0.544	-2.1	135	-0.01
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	132	-0.02
24	S	Nitrobenzene-d5	0.324	0.366	-13.0	150	-0.01
25	T	Nitrobenzene	0.303	0.328	-8.3	148	0.00
26	T	Isophorone	0.641	0.713	-11.2	146	-0.02
27	TC	2-Nitrophenol	0.186	0.190	-2.2	131	-0.01
28	T	2,4-Dimethylphenol	0.329	0.332	-0.9	135	0.00
29	T	Bis(2-chloroethoxy) methane	0.384	0.402	-4.7	144	-0.02
30	T	Benzoic acid	0.098	0.109	-11.2	154	-0.02
31	T	2,4-Dimethylaniline	0.421	0.348	17.3	108	-0.02
32	TC	2,4-Dichlorophenol	0.278	0.256	7.9	124	0.00
33	M	1,2,4-Trichlorobenzene	0.304	0.279	8.2	120	-0.01
34	T	Naphthalene	1.089	1.081	0.7	133	-0.02
35	T	4-Chloroaniline	0.572	0.529	7.5	121	-0.01
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.141	9.0	121	-0.02
38	T	Caprolactam	0.119	0.135	-13.4	147	-0.03
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.295	-1.4	140	-0.02
41	T	2-Methylnaphthalene	0.717	0.688	4.0	132	-0.03
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	124	-0.05
44	TP	Hexachlorocyclopentadiene	0.155	0.150	3.2	119	-0.03
45	TC	2,4,6-Trichlorophenol	0.333	0.303	9.0	115	-0.02

46	T	2,4,5-Trichlorophenol	0.367	0.303	17.4	103	-0.05
47	S	2-Fluorobiphenyl	1.352	1.396	-3.3	129	-0.03
48	T	1,1'-Biphenyl	1.423	1.488	-4.6	131	-0.04
49	T	2-Chloronaphthalene	1.085	1.073	1.1	125	-0.04
50	T	2-Nitroaniline	0.246	0.295	-19.9	154	-0.04
51	T	Dimethyl phthalate	1.169	1.162	0.6	123	-0.05
52	T	2,6-Dinitrotoluene	0.264	0.274	-3.8	131	-0.04
53	T	Acenaphthylene	1.694	1.701	-0.4	125	-0.04
54	T	3-Nitroaniline	0.310	0.313	-1.0	132	-0.05
55	MC	Acenaphthene	1.141	1.154	-1.1	129	-0.05
56	TP	2,4-Dinitrophenol	0.057	0.053	7.0	106	-0.04
57	MP	4-Nitrophenol	0.157	0.188	-19.7	144	-0.03
58	M	2,4-Dinitrotoluene	0.314	0.330	-5.1	128	-0.05
59	T	Dibenzofuran	1.537	1.487	3.3	123	-0.06
60	T	Diethyl phthalate	1.139	1.197	-5.1	133	-0.07
61	T	Fluorene	1.264	1.269	-0.4	128	-0.07
62	T	4-Chlorophenyl phenyl ether	0.584	0.567	2.9	126	-0.06
63	T	4-Nitroaniline	0.311	0.324	-4.2	130	-0.06
64		1,2,4,5-Tetrachlorobenzene	0.545	0.528	3.1	122	-0.03
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.225	15.1	107	-0.05
66	I	Phenanthrene-d10	1.000	1.000	0.0	123	-0.09
67	T	4,6-Dinitro-2-methylphenol	0.070	0.061	12.9	112	-0.07
68	TC	N-Nitrosodiphenylamine	0.565	0.591	-4.6	128	-0.07
69	T	1,2-Diphenylhydrazine	0.810	0.867	-7.0	130	-0.07
70	S	2,4,6-Tribromophenol	0.128	0.117	8.6	113	-0.07
71	T	4-Bromophenyl phenyl ether	0.216	0.206	4.6	121	-0.08
72	T	Hexachlorobenzene	0.240	0.223	7.1	118	-0.09
73	T	Atrazine	0.207	0.207	0.0	116	-0.09
74	MC	Pentachlorophenol	0.136	0.114	16.2	100	-0.08
75	T	Phenanthrene	1.083	1.075	0.7	127	-0.09
76	T	Anthracene	1.089	1.075	1.3	123	-0.10
77	T	Carbazole	1.037	0.998	3.8	122	-0.09
78	T	Di-n-butyl phthalate	1.203	1.269	-5.5	131	-0.12
79	TC	Fluoranthene	1.144	1.069	6.6	118	-0.13
80	T	Benzidine	0.725	0.652	10.1	106	-0.13
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	105	-0.11
83	M	Pyrene	1.349	1.441	-6.8	117	-0.14
84	S	Terphenyl-d14	1.060	1.121	-5.8	112	-0.17
85	T	3,3'-Dimethylbenzidine	1.016	0.836	17.7	111	-0.17
86	T	Butyl benzyl phthalate	0.553	0.472	14.6	90	-0.18
87	T	3,3'-Dichlorobenzidine	0.346	0.371	-7.2	107	-0.11
88	T	Benzo[a]anthracene	1.080	1.081	-0.1	108	-0.11
89	T	Chrysene	1.037	1.054	-1.6	109	-0.11
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.815	-12.1	118	-0.12
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	92	-0.09
93	TC	Di-n-octyl phthalate	1.802	2.058	-14.2	103	-0.13
94	T	Benzo[b]fluoranthene	1.616	1.671	-3.4	96	-0.11
95	T	Benzo[k]fluoranthene	1.492	1.746	-17.0	113	-0.12
96	TC	Benzo[a]pyrene	1.461	1.505	-3.0	96	-0.11
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.783	-3.7	90	-0.10
98	T	Dibenz[a,h]anthracene	1.406	1.488	-5.8	92	-0.10
99	T	Benzo[g,h,i]perylene	1.449	1.402	3.2	85	-0.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Tue Sep 24 12:12:56 2013 RPT1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C9789.D

Date Analyzed: 09/10/2013

Instrument ID: MSDC

Time Analyzed: 16:15

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	179741		2.47		725778		3.01		438920		3.82	
	UPPER LIMIT	359482		2.97		1451556		3.51		877840		4.32	
	LOWER LIMIT	89871		1.97		362889		2.51		219460		3.32	
	LAB SAMPLE ID												
01	ICC010BNA1	161882		2.47		681271		3.01		421822		3.83	
02	ICC020BNA1	156644		2.47		653348		3.01		394358		3.83	
03	ICC040BNA1	160435		2.47		672033		3.02		403704		3.83	
04	ICC080BNA1	158024		2.47		669950		3.02		388351		3.83	
05	ICC120BNA1	193539		2.47		819268		3.02		487199		3.86	
06	ICV040BNA1	173317		2.47		730510		3.02		436870		3.86	
07	ICC120BNA2	260276		2.47		1083469		3.02		682879		3.85	
08	ICC080BNA2	188485		2.47		800384		3.02		495291		3.85	
09	ICC040BNA2	152311		2.47		622754		3.02		394375		3.86	
10	ICC020BNA2	184332		2.47		774768		3.02		477898		3.85	
11	ICC010BNA2	152062		2.47		613992		3.01		389563		3.84	
12	ICC001BNA2	196074		2.47		845804		3.02		509866		3.85	
13	ICV040BNA2	180144		2.47		739863		3.02		465174		3.86	
14													
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20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C9789.D

Date Analyzed: 09/10/2013

Instrument ID: MSDC

Time Analyzed: 16:15

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	699175	4.57	644442	6.34	366137	7.67
	UPPER LIMIT	1398350	5.07	1288884	6.84	732274	8.17
	LOWER LIMIT	349588	4.07	322221	5.84	183069	7.17
	LAB SAMPLE ID						
01	ICC010BNA1	662720	4.58	616112	6.34	343676	7.69
02	ICC020BNA1	642175	4.58	571945	6.35	315367	7.69
03	ICC040BNA1	632590	4.58	540119	6.34	309196	7.68
04	ICC080BNA1	579365	4.58	469906	6.35	301109	7.69
05	ICC120BNA1	764913	4.65	532829	6.44	307472	7.78
06	ICV040BNA1	703761	4.65	666910	6.44	369311	7.77
07	ICC120BNA2	1117545	4.64	1024951	6.42	540415	7.76
08	ICC080BNA2	835315	4.62	781250	6.41	405714	7.74
09	ICC040BNA2	656626	4.66	679644	6.45	389302	7.78
10	ICC020BNA2	784214	4.63	819581	6.42	456449	7.76
11	ICC010BNA2	663751	4.61	675768	6.38	396104	7.71
12	ICC001BNA2	852863	4.63	836205	6.41	469598	7.75
13	ICV040BNA2	779700	4.65	761975	6.44	419081	7.77
14							
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20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0112.D

Date Analyzed: 09/20/2013

Instrument ID: MSDC

Time Analyzed: 12:13

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	152964	2.47	624688	3.01	375924	3.83
	UPPER LIMIT	305928	2.97	1249376	3.51	751848	4.33
	LOWER LIMIT	76482	1.97	312344	2.51	187962	3.33
	LAB SAMPLE ID						
01	CCV040BNA1	126920	2.47	561405	3.02	327944	3.85
02	BLKS130919-03	199214	2.46	856700	3.01	540546	3.82
03	LCSS130919-03	229777	2.46	944667	3.01	532060	3.82
04	E13-09196-001MS	257923	2.46	1082404	3.01	528034	3.83
05	E13-09196-001MSD	218552	2.47	903734	3.01	528237	3.82
06	E13-09196-001	279062	2.46	1172732	3.01	638081	3.81
07	E13-09196-002	211548	2.46	884805	3.01	458530	3.80
08	E13-09196-003	250810	2.46	1027273	3.01	518233	3.80
09	E13-09196-004	246934	2.46	1076462	3.01	639231	3.81
10	E13-09196-005	266891	2.47	1043636	3.01	519739	3.81
11	E13-09197-010	257134	2.47	1216782	3.02	685886	3.85
12	E13-08977-004	225382	2.47	980316	3.01	492145	3.82
13	E13-09197-004	208939	2.47	837753	3.01	457083	3.81
14	E13-09197-005	257207	2.47	1032506	3.01	528735	3.81
15	E13-09197-009	237880	2.47	1074381	3.01	615996	3.84
16							
17							
18							
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21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

E13-09197 0200

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0112.D

Date Analyzed: 09/20/2013

Instrument ID: MSDC

Time Analyzed: 12:13

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	605134		4.60		549811		6.37		324832		7.73	
	UPPER LIMIT	1210268		5.10		1099622		6.87		649664		8.23	
	LOWER LIMIT	302567		4.10		274906		5.87		162416		7.23	
	LAB SAMPLE ID												
01	CCV040BNA1	505558		4.63		441103		6.42		304544		7.76	
02	BLKS130919-03	868530		4.58		579706		6.34		266047		7.69	
03	LCSS130919-03	792551		4.57		465543		6.33		225349		7.70	
04	E13-09196-001MS	698388		4.58		515776		6.36		299184		7.74	
05	E13-09196-001MSD	706295		4.57		544141		6.35		305950		7.73	
06	E13-09196-001	752676		4.55		483500		6.32		280730		7.69	
07	E13-09196-002	735528		4.54		606737		6.31		311081		7.70	
08	E13-09196-003	721180		4.55		790310		6.34		400842		7.76	
09	E13-09196-004	993580		4.56		5180*		6.29		3922*		7.60	
10	E13-09196-005	845633		4.55		652812		6.35		433446		7.79	
11	E13-09197-010	866666		4.64		477789		6.43		281655		7.80	
12	E13-08977-004	657597		4.56		484543		6.32		297874		7.68	
13	E13-09197-004	740860		4.56		765186		6.34		309854		7.75	
14	E13-09197-005	747508		4.55		669465		6.31		284830		7.74	
15	E13-09197-009	947470		4.62		591821		6.41		356376		7.76	
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0201.D

Date Analyzed: 09/24/2013

Instrument ID: MSDC

Time Analyzed: 11:44

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	207794		2.46		885962		3.01		502438		3.81	
	UPPER LIMIT	415588		2.96		1771924		3.51		1004876		4.31	
	LOWER LIMIT	103897		1.96		442981		2.51		251219		3.31	
	LAB SAMPLE ID												
01	CCV040BNA2	173084		2.47		730717		3.01		445433		3.81	
02	E13-08667-002	167741		2.47		696452		3.01		363637		3.80	
03	E13-08667-004	191523		2.47		781117		3.01		416874		3.80	
04	E13-08667-006	233759		2.47		941955		3.01		485615		3.80	
05	E13-08667-007	215015		2.47		838685		3.01		401841		3.80	
06	E13-08673-011	206294		2.47		836165		3.01		424240		3.80	
07	E13-09197-007	178341		2.47		708732		3.01		354705		3.80	
08													
09													
10													
11													
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13													
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17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

E13-09197 0202

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0201.D

Date Analyzed: 09/24/2013

Instrument ID: MSDC

Time Analyzed: 11:44

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	774956	4.56	564812	6.33	284656	7.69
	UPPER LIMIT	1549912	5.06	1129624	6.83	569312	8.19
	LOWER LIMIT	387478	4.06	282406	5.83	142328	7.19
	LAB SAMPLE ID						
01	CCV040BNA2	731843	4.56	685482	6.32	362917	7.67
02	E13-08667-002	544844	4.54	476083	6.29	147666	7.69
03	E13-08667-004	622455	4.54	539224	6.30	178615	7.67
04	E13-08667-006	728413	4.54	669185	6.29	284607	7.65
05	E13-08667-007	574830	4.53	514318	6.29	226944	7.65
06	E13-08673-011	616093	4.53	553506	6.29	247187	7.65
07	E13-09197-007	536556	4.53	506223	6.27	260907	7.67
08							
09							
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21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 23 09:42:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

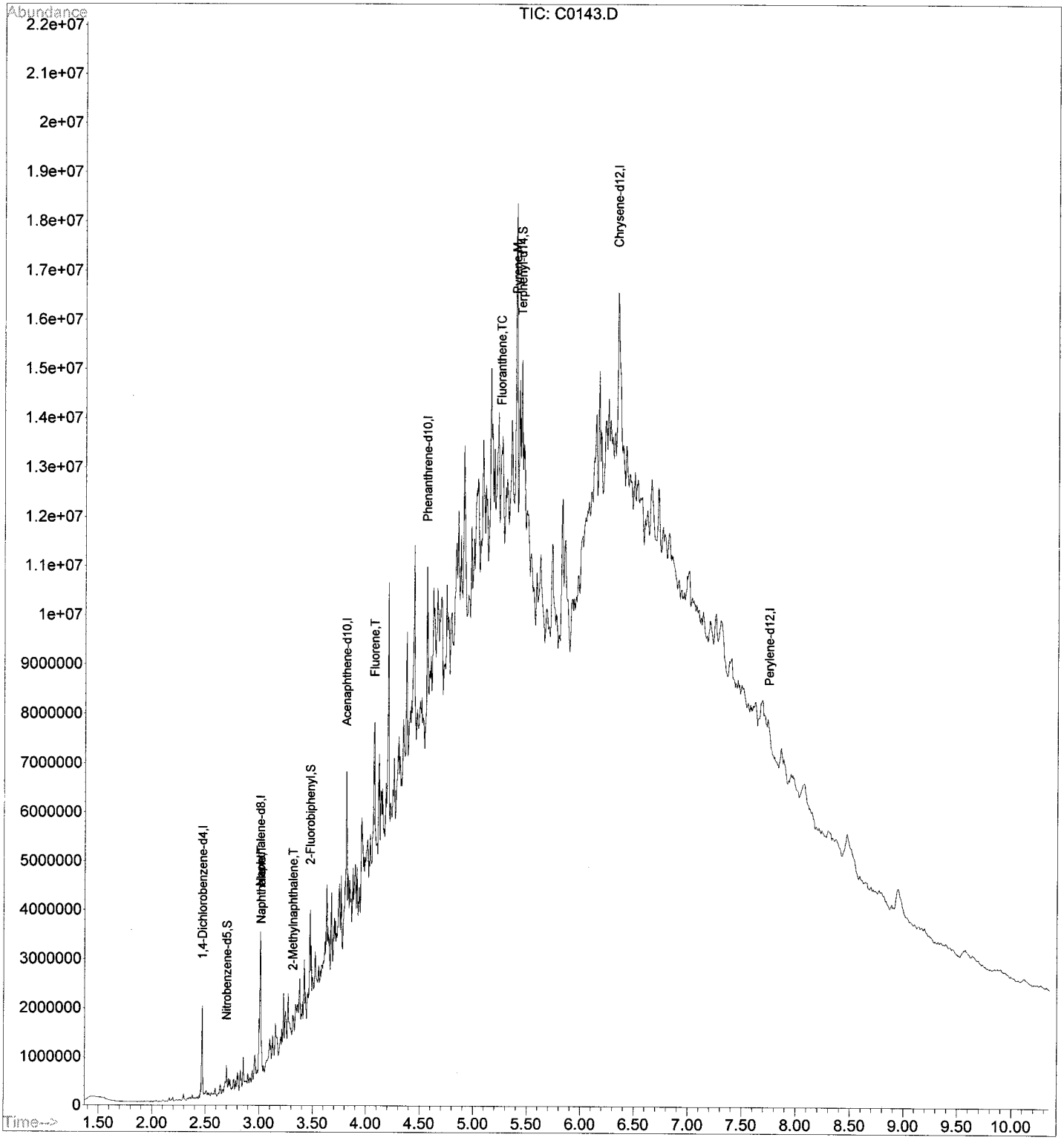
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	208939	40.00	UG	0.00
23) Naphthalene-d8	3.01	136	837753	40.00	UG	-0.02
43) Acenaphthene-d10	3.81	164	457083	40.00	UG	-0.05
66) Phenanthrene-d10	4.56	188	740860m	40.00	UG	-0.09
82) Chrysene-d12	6.34	240	765186m	40.00	UG	-0.10
92) Perylene-d12	7.75	264	309854	40.00	UG	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.70	82	118515	17.48	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 34.96%			
47) 2-Fluorobiphenyl	3.47	172	295802	19.14	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 38.28%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.44	244	356594m	17.58	UG	-0.16
Spiked Amount 50.000	Range 15 - 122		Recovery = 35.16%			
Target Compounds						Qvalue
34) Naphthalene	3.02	128	14506	0.64	UG	# 71
41) 2-Methylnaphthalene	3.32	142	19712	1.31	UG	90
61) Fluorene	4.07	166	56424	3.91	UG	# 59
79) Fluoranthene	5.25	202	191159m	9.02	UG	
83) Pyrene	5.39	202	1346033m	52.16	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 23 09:42:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.469	203	207	210	rBV	1911428	1220179	23.98%	1.778%
2	2.688	245	248	249	rBV3	232443	232576	4.57%	0.339%
3	2.699	249	250	252	rVB	471149	230327	4.53%	0.336%
4	2.768	259	263	264	rBV4	227879	174343	3.43%	0.254%
5	2.800	267	269	272	rVB3	374358	306317	6.02%	0.446%
6	2.827	272	274	277	rBV4	422452	356573	7.01%	0.520%
7	2.854	277	279	281	rBV2	614619	333298	6.55%	0.486%
8	2.960	296	299	302	rBV3	509396	442014	8.69%	0.644%
9	3.009	304	308	313	rBV2	2896538	2697817	53.03%	3.931%
10	3.099	316	325	328	rBV7	702193	1323198	26.01%	1.928%
11	3.126	328	330	333	rBV4	491848	349734	6.87%	0.510%
12	3.153	333	335	337	rBV2	661939	531795	10.45%	0.775%
13	3.201	340	344	345	rBV3	403290	370351	7.28%	0.540%
14	3.228	347	349	350	rBV	991183	412309	8.10%	0.601%
15	3.244	350	352	355	rVB4	581091	490705	9.65%	0.715%
16	3.270	355	357	359	rBV2	934880	654882	12.87%	0.954%
17	3.313	363	365	368	rBV4	402156	362954	7.13%	0.529%
18	3.340	368	370	372	rBV2	556602	530651	10.43%	0.773%
19	3.377	375	377	379	rVB2	836602	524951	10.32%	0.765%
20	3.420	383	385	386	rBV	1204759	644569	12.67%	0.939%
21	3.452	389	391	392	rBV2	549878	439329	8.64%	0.640%
22	3.473	392	395	398	rBV2	1808166	1420553	27.92%	2.070%
23	3.521	402	404	406	rBV2	749629	478627	9.41%	0.697%
24	3.628	422	424	425	rBV	1409080	765857	15.05%	1.116%
25	3.671	430	432	434	rBV2	1575257	1047289	20.59%	1.526%
26	3.698	434	437	440	rBV4	884406	1036953	20.38%	1.511%
27	3.746	443	446	448	rBV3	1000113	822826	16.17%	1.199%
28	3.762	448	449	452	rVB2	1509932	675630	13.28%	0.984%
29	3.810	452	458	460	rBV3	3632884	4001344	78.65%	5.830%
30	3.874	468	470	471	rBV	1107835	608399	11.96%	0.887%
31	3.954	483	485	490	rBV4	1950553	2867127	56.36%	4.178%
32	4.072	505	507	511	rVB2	2504359	1739254	34.19%	2.534%
33	4.114	513	515	517	rBV2	2049652	1517689	29.83%	2.211%
34	4.130	517	518	520	rBV2	1016242	818190	16.08%	1.192%
35	4.178	525	527	528	rBV	1101451	658429	12.94%	0.959%
36	4.200	528	531	534	rVB2	4875684	3215475	63.21%	4.685%
37	4.339	555	557	560	rBV2	1358592	1324101	26.03%	1.929%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	4.371	560	563	565	rVV	2584028	1822332	35.82%	2.655%
39	4.440	574	576	579	rVB	3955370	2416010	47.49%	3.520%
40	4.558	596	598	601	rBV	3150745	2140277	42.07%	3.119%
41	4.617	607	609	613	rBV5	1926561	2287599	44.97%	3.333%
42	4.739	630	632	634	rBV3	1725157	1259557	24.76%	1.835%
43	4.900	660	662	667	rVB3	3481340	3449572	67.81%	5.026%
44	4.969	673	675	677	rBV2	1868844	1335463	26.25%	1.946%
45	5.076	693	695	699	rBV3	2164455	2218700	43.61%	3.233%
46	5.151	707	709	710	rBV	2879685	1948303	38.30%	2.839%
47	5.391	751	754	756	rVB	6278622	5087334	100.00%	7.413%
48	5.418	757	759	761	rBV	2513325	2014384	39.60%	2.935%
49	5.819	831	834	836	rBV	2398413	2342651	46.05%	3.413%
50	6.337	929	931	938	rVB2	3252148	4680423	92.00%	6.820%

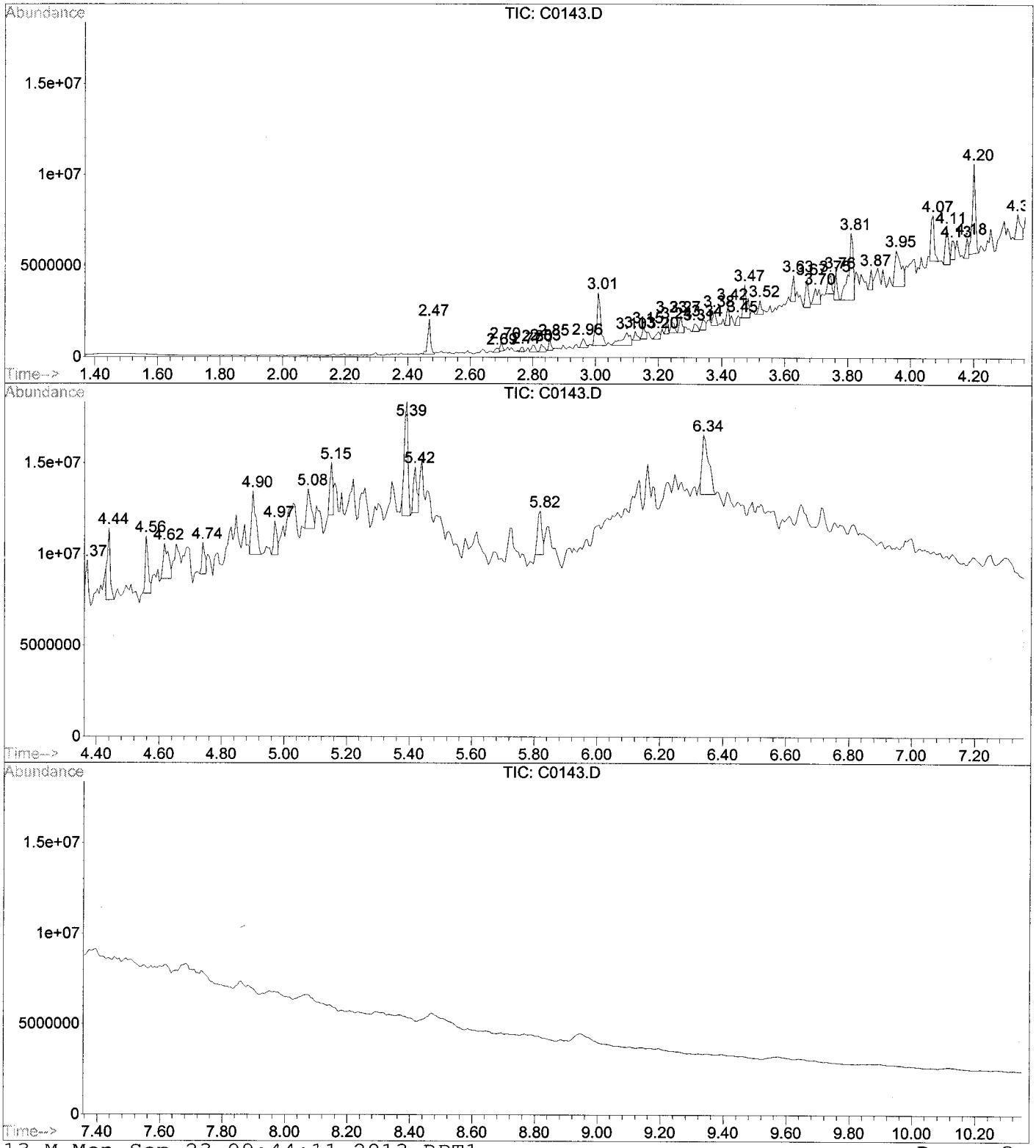
Sum of corrected areas: 68629220

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

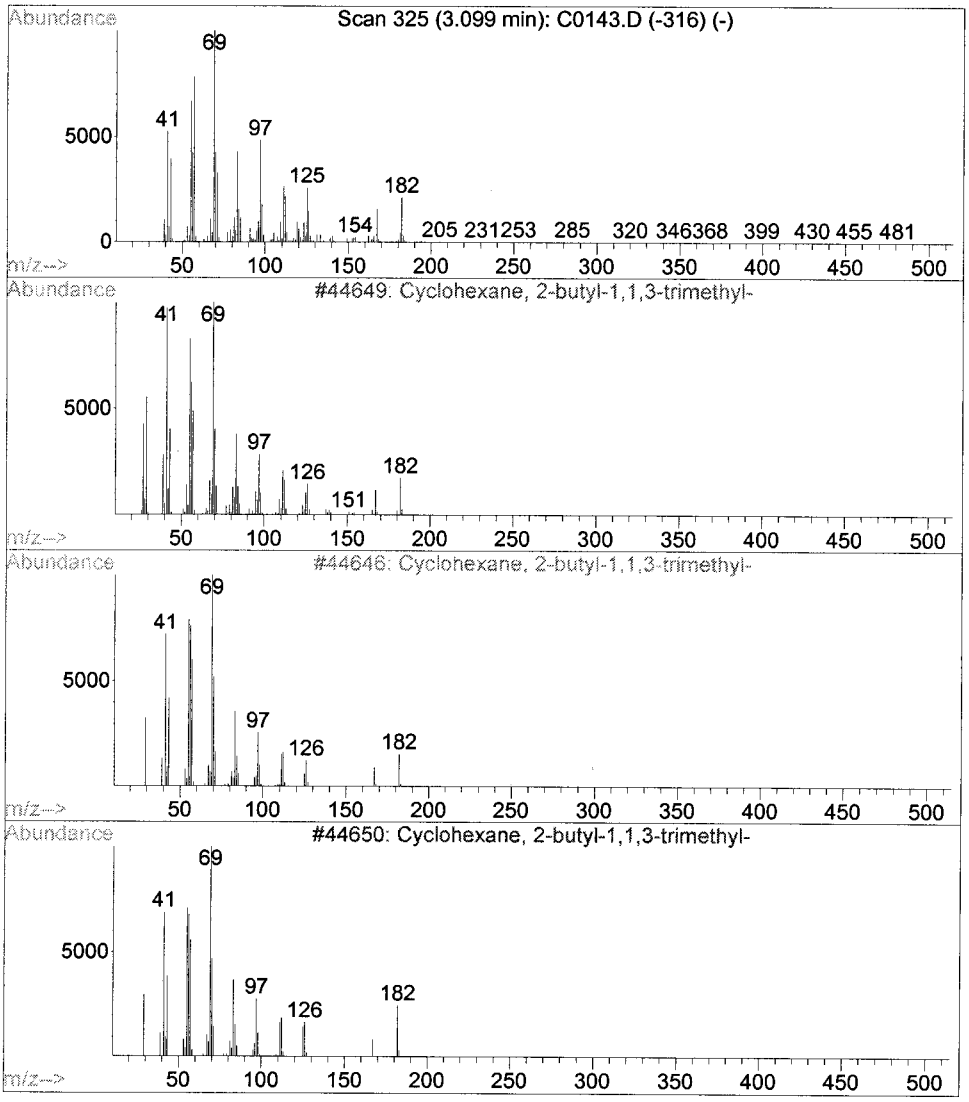
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

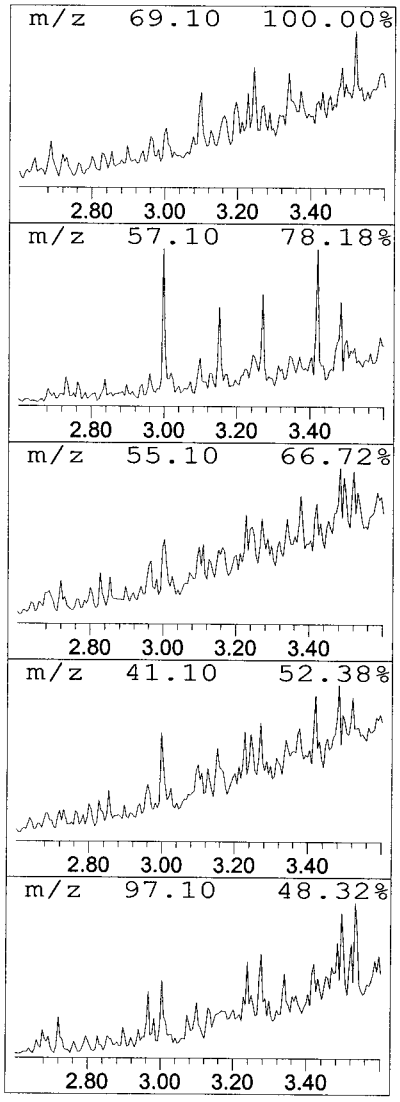
****

Peak Number 1 Unknown SV Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.10	19.62 UG	1323200	Naphthalene-d8	3.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 2-butyl-1,1,3-trime...	182	C13H26	054676-39-0	94
2	Cyclohexane, 2-butyl-1,1,3-trime...	182	C13H26	054676-39-0	91
3	Cyclohexane, 2-butyl-1,1,3-trime...	182	C13H26	054676-39-0	90
4	6-Tridecene, (E)-	182	C13H26	006434-76-0	68
5	Oxirane, 2-decyl-3-(5-methylhexy...	282	C19H38O	029804-22-6	58





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

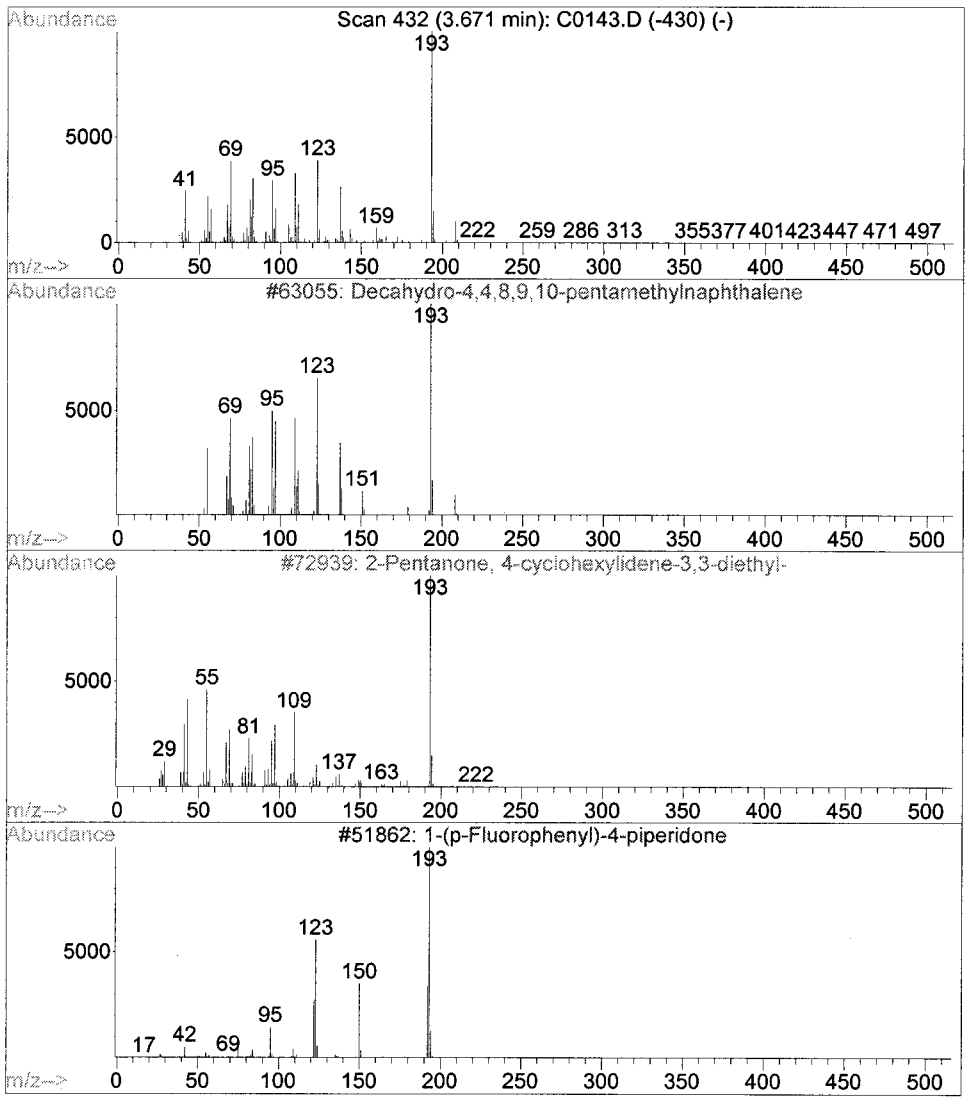
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

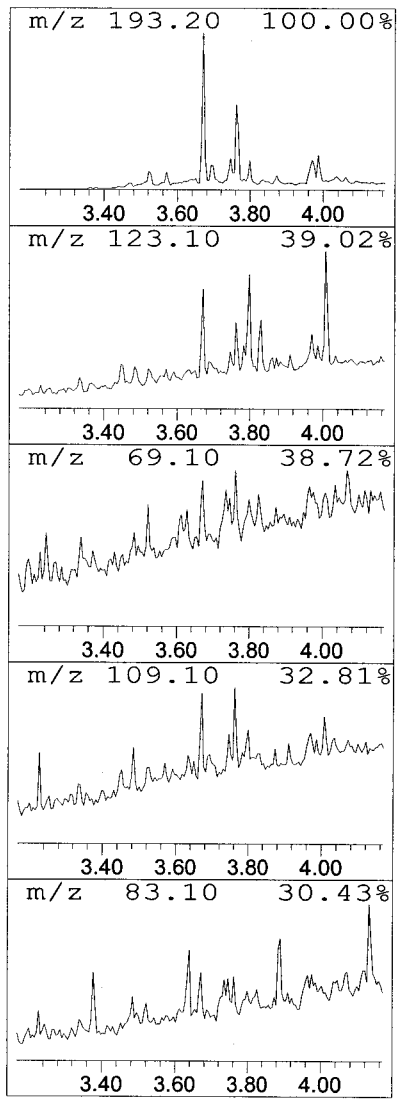
****

Peak Number 2 Unknown SV Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.67	10.47 UG	1047290	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethyl...	208	C15H28	080655-44-3	86
2	2-Pentanone, 4-cyclohexylidene-3...	222	C15H26O	313253-65-5	50
3	1-(p-Fluorophenyl)-4-piperidone	193	C11H12FNO	1000238-56-7	49
4	1H-Indene, octahydro-2,2,4,4,7,7...	208	C15H28	054832-83-6	47
5	Borinic acid, diethyl-, 3,3,5-tr...	208	C13H25BO	057387-76-5	35





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

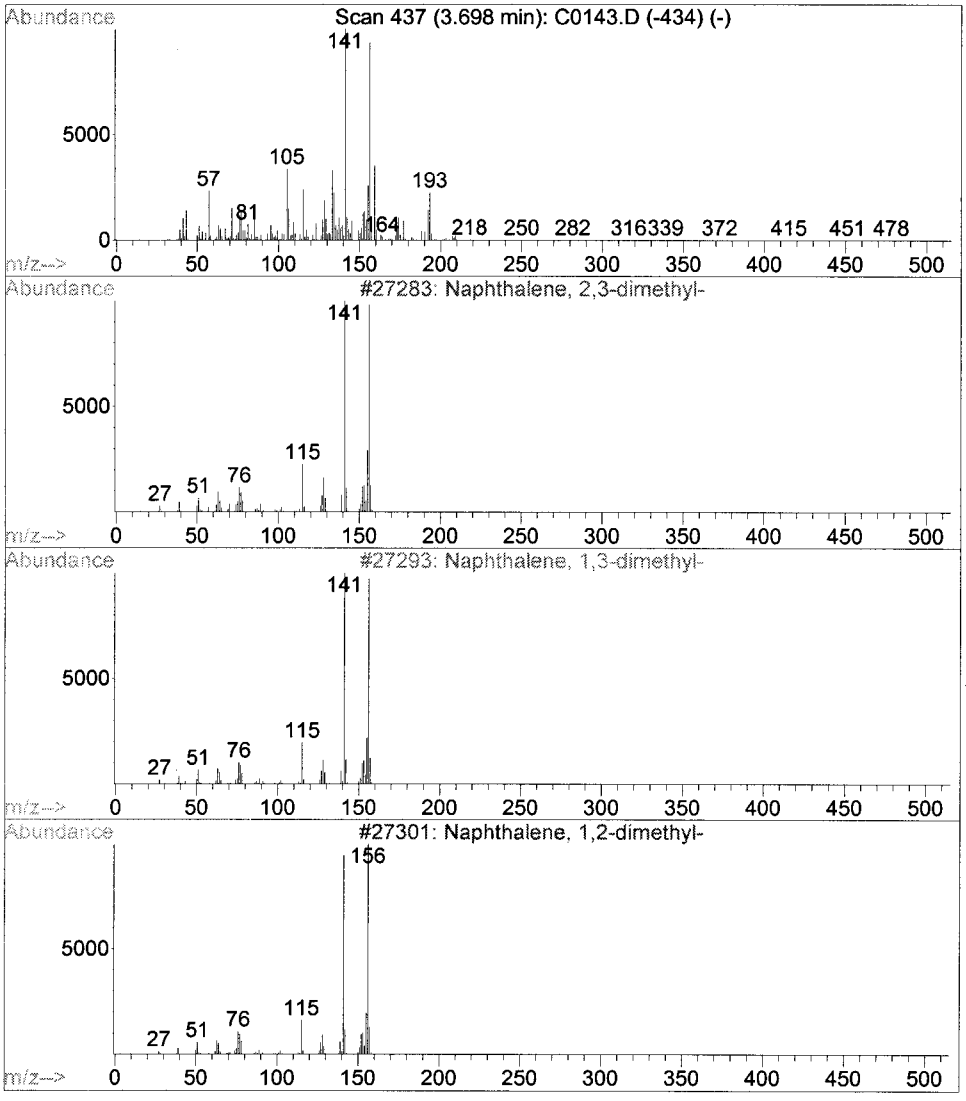
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

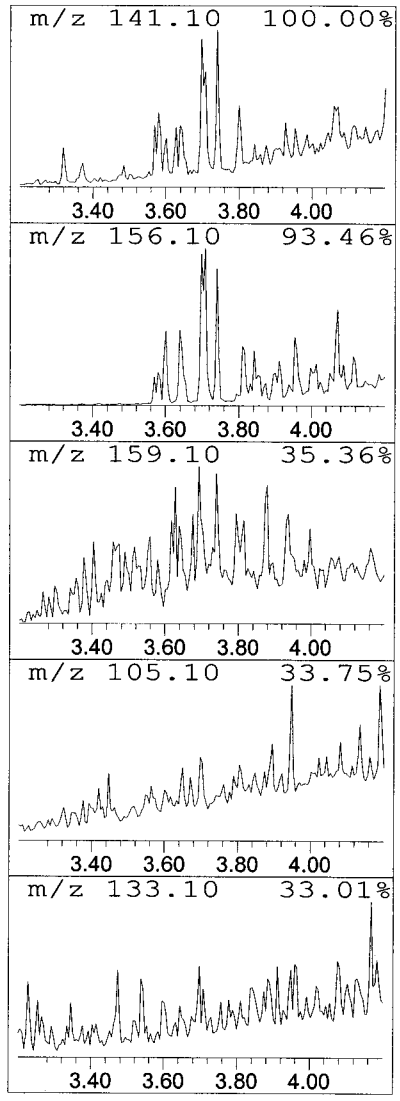
****

Peak Number 3 Unknown PAH Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.70	10.37 UG	1036950	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	90
2	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	90
3	Naphthalene, 1,2-dimethyl-	156	C12H12	000573-98-8	78
4	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	78
5	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

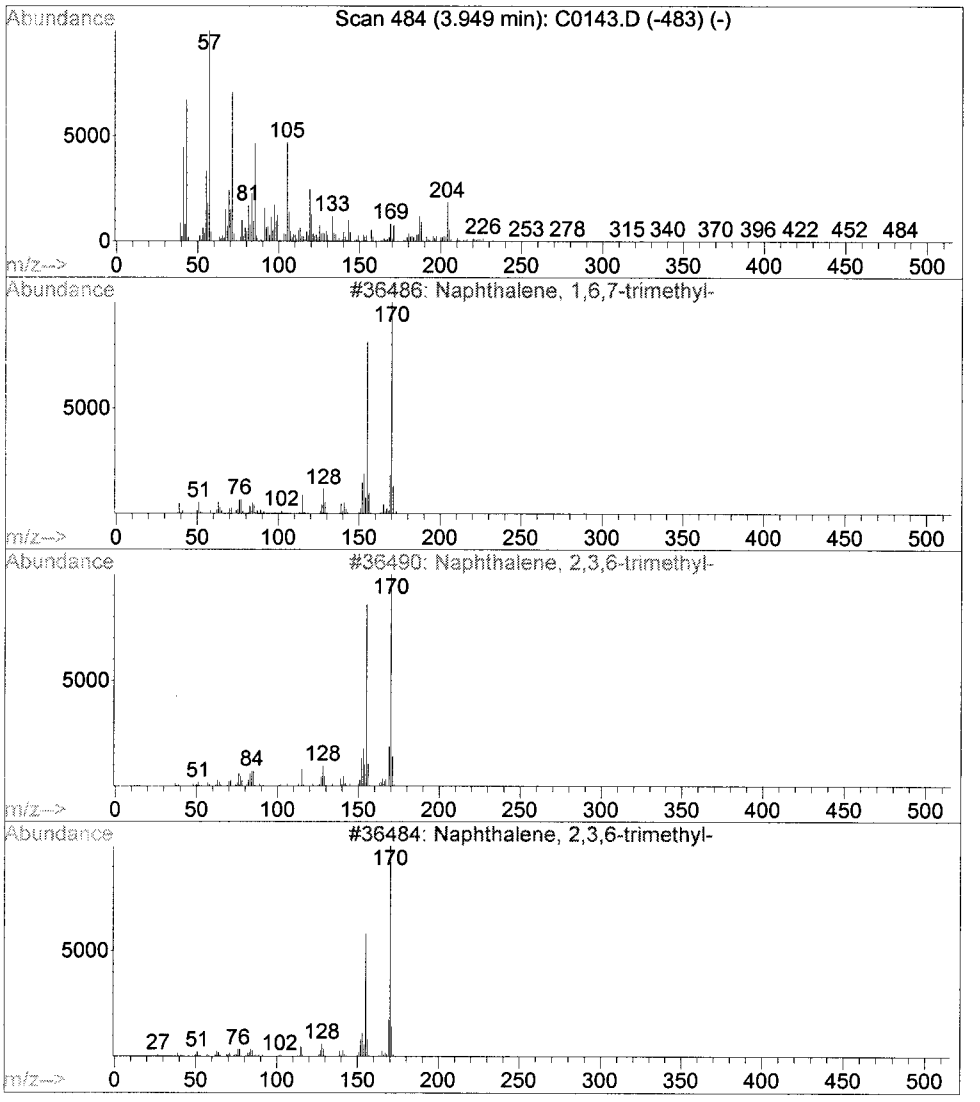
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

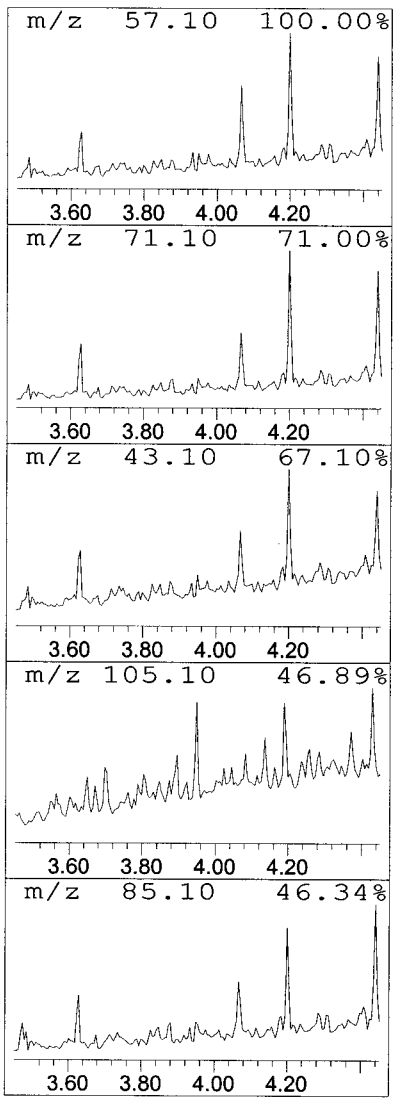
****

Peak Number 4 Unknown PAH Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.95	28.66 UG	2867130	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	97
2	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	96
3	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	96
4	Naphthalene, 1,4,6-trimethyl-	170	C13H14	002131-42-2	95
5	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

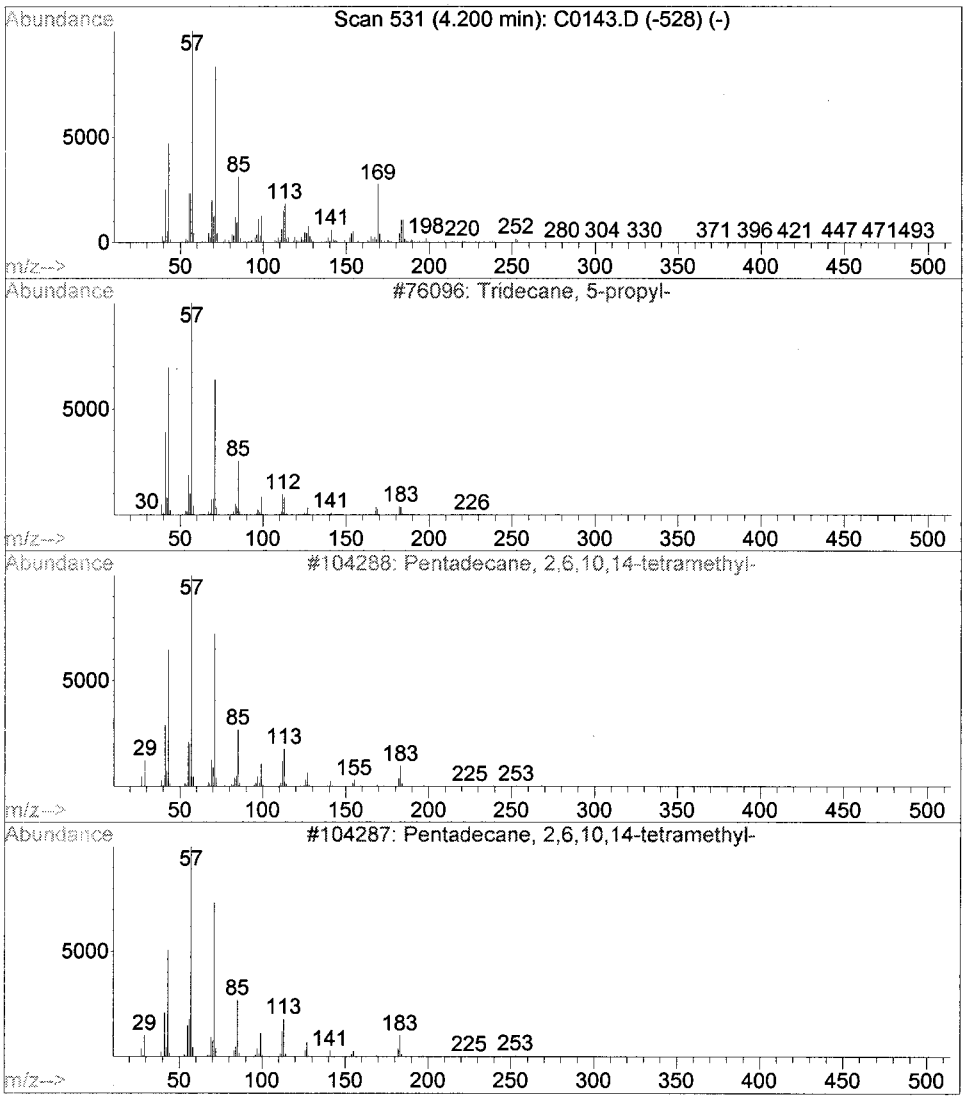
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

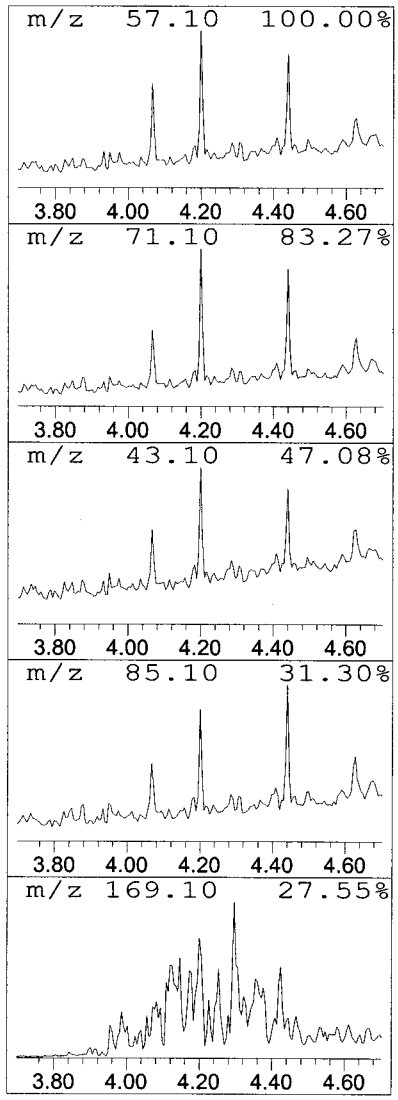
****

Peak Number 5 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.20	60.09 UG	3215480	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane, 5-propyl-	226	C16H34	055045-11-9	76
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	74
3	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	74
4	Hexadecane, 2,6,11,15-tetramethyl-	282	C20H42	000504-44-9	74
5	Dodecane, 2-methyl-8-propyl-	226	C16H34	055045-07-3	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

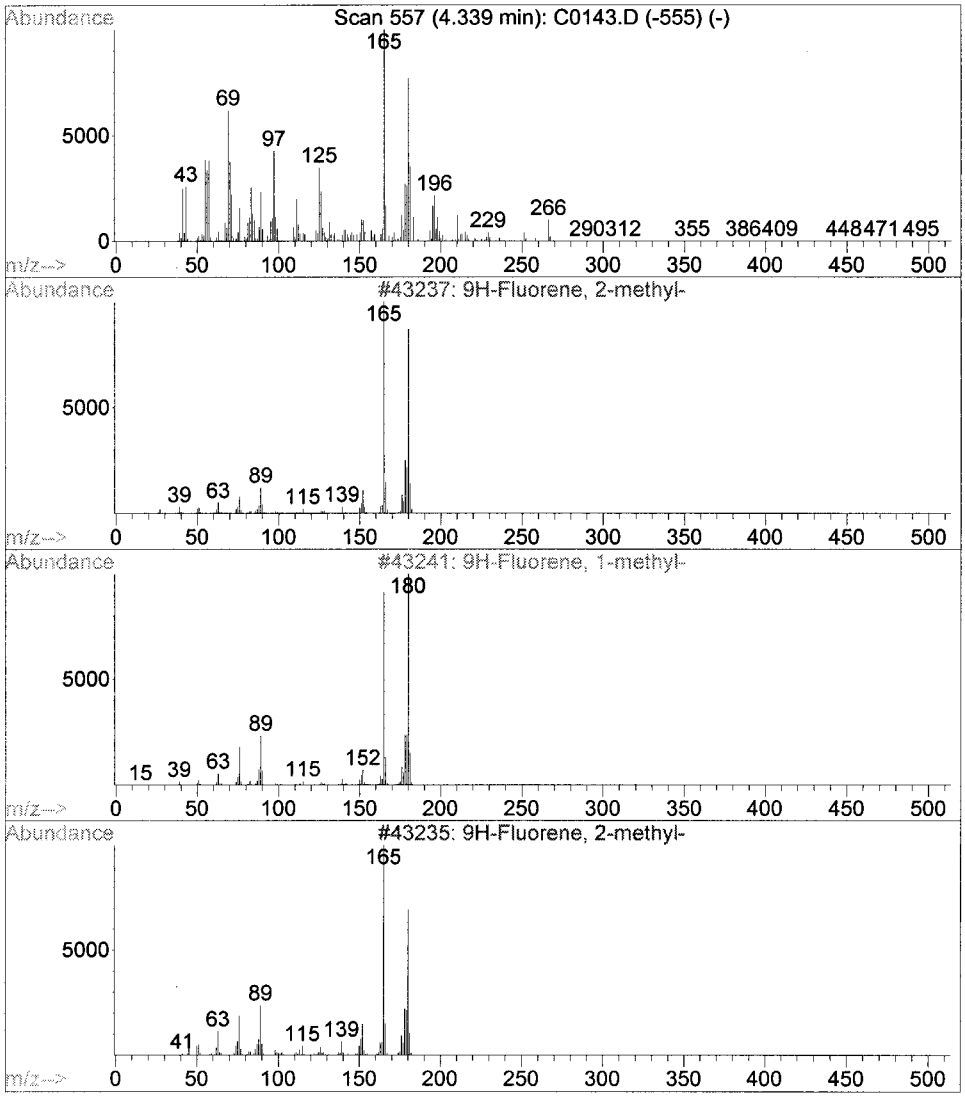
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

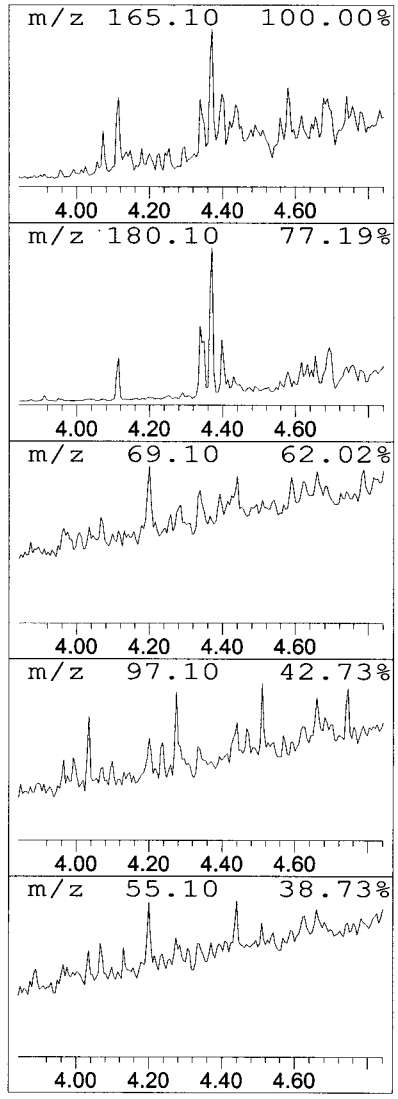
****

Peak Number 6 Unknown PAH Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.34	24.75 UG	1324100	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9H-Fluorene, 2-methyl-	180	C14H12	001430-97-3	90
2	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	90
3	9H-Fluorene, 2-methyl-	180	C14H12	001430-97-3	78
4	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	78
5	9H-Fluorene, 3-methyl-	180	C14H12	002523-39-9	55





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

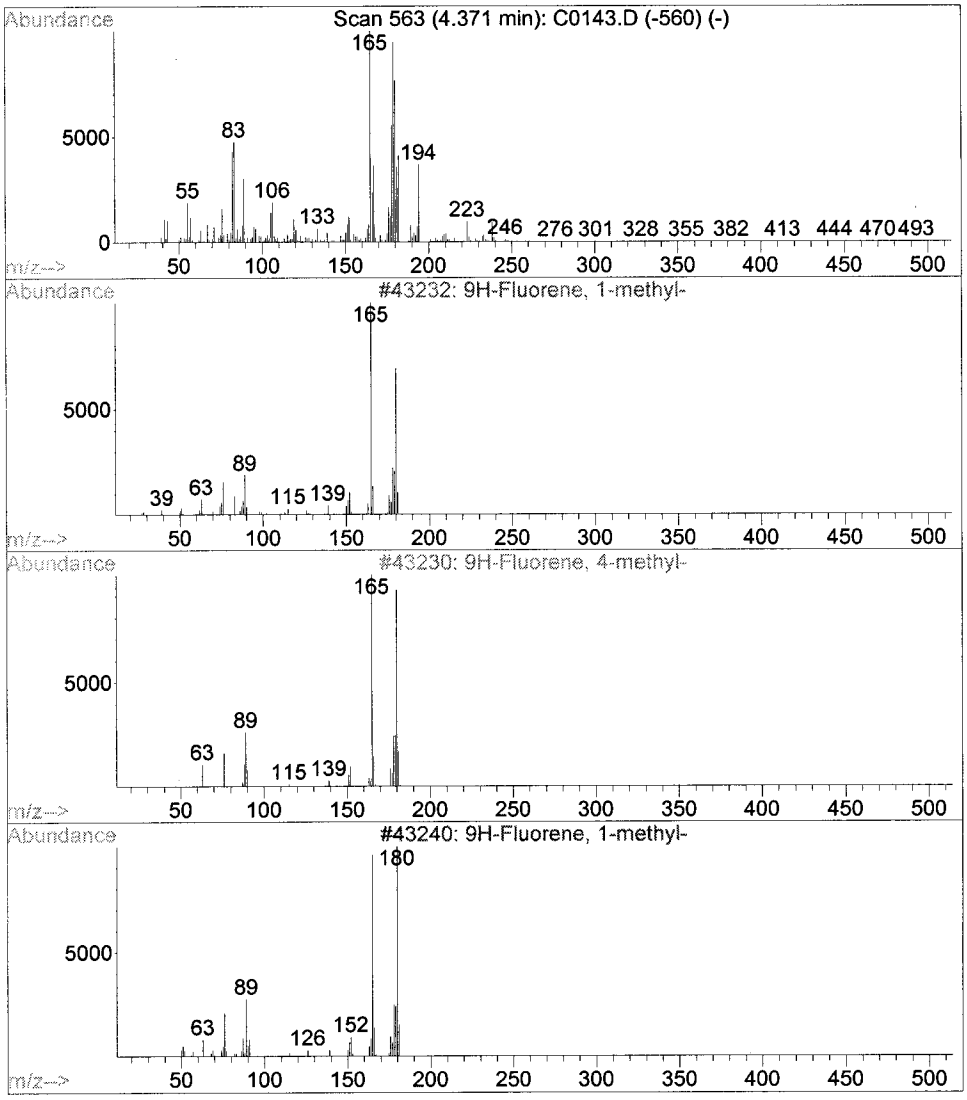
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

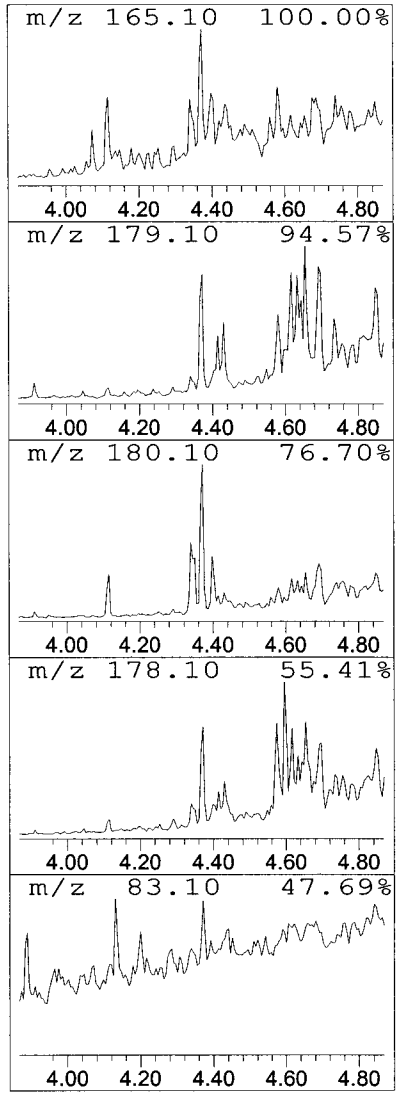
****

Peak Number 7 Unknown PAH Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.37	34.06 UG	1822330	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	46
2	9H-Fluorene, 4-methyl-	180	C14H12	001556-99-6	46
3	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	46
4	4a,9a-Methano-9H-fluorene	180	C14H12	019540-84-2	45
5	3H-Benz[e]indene, 2-methyl-	180	C14H12	150096-60-9	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

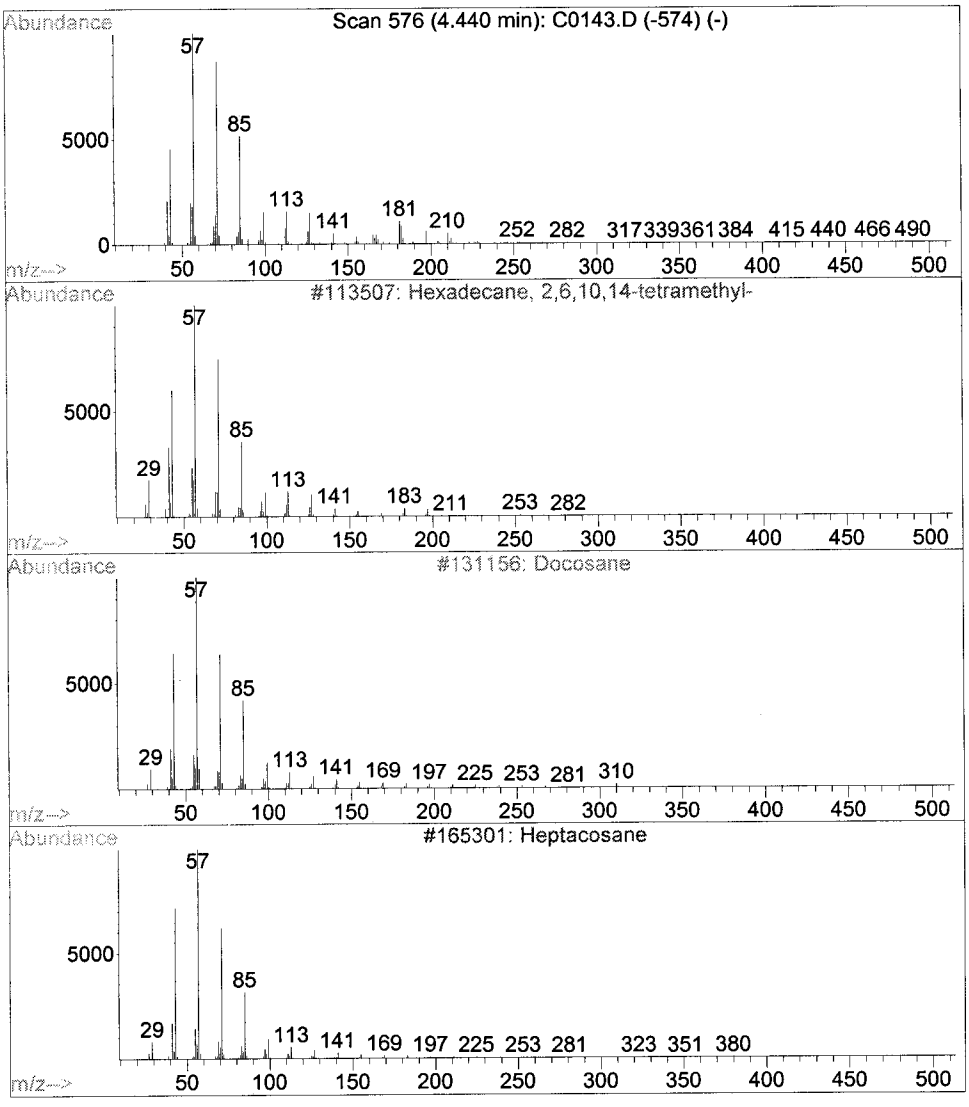
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

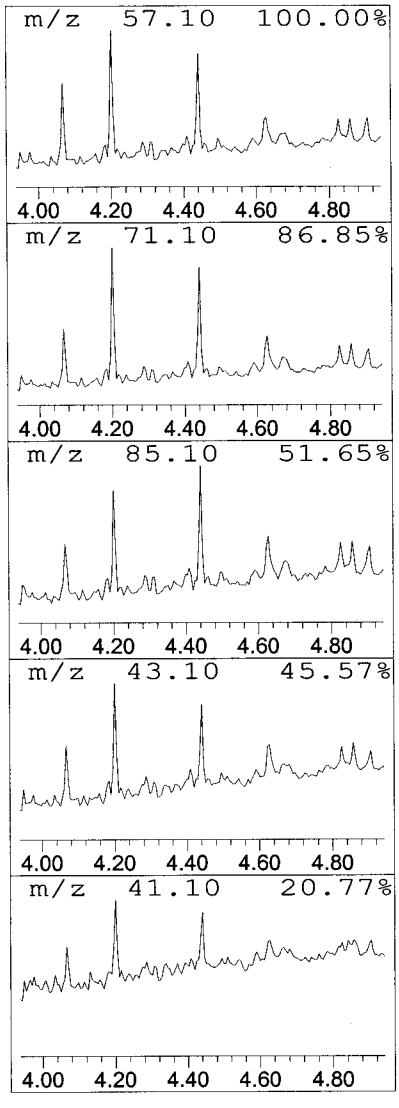
****

Peak Number 8 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.44	45.15 UG	2416010	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	90
2	Docosane	310	C22H46	000629-97-0	90
3	Heptacosane	380	C27H56	000593-49-7	87
4	Tridecane, 1-iodo-	310	C13H27I	035599-77-0	87
5	Tridecane, 7-hexyl-	268	C19H40	007225-66-3	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

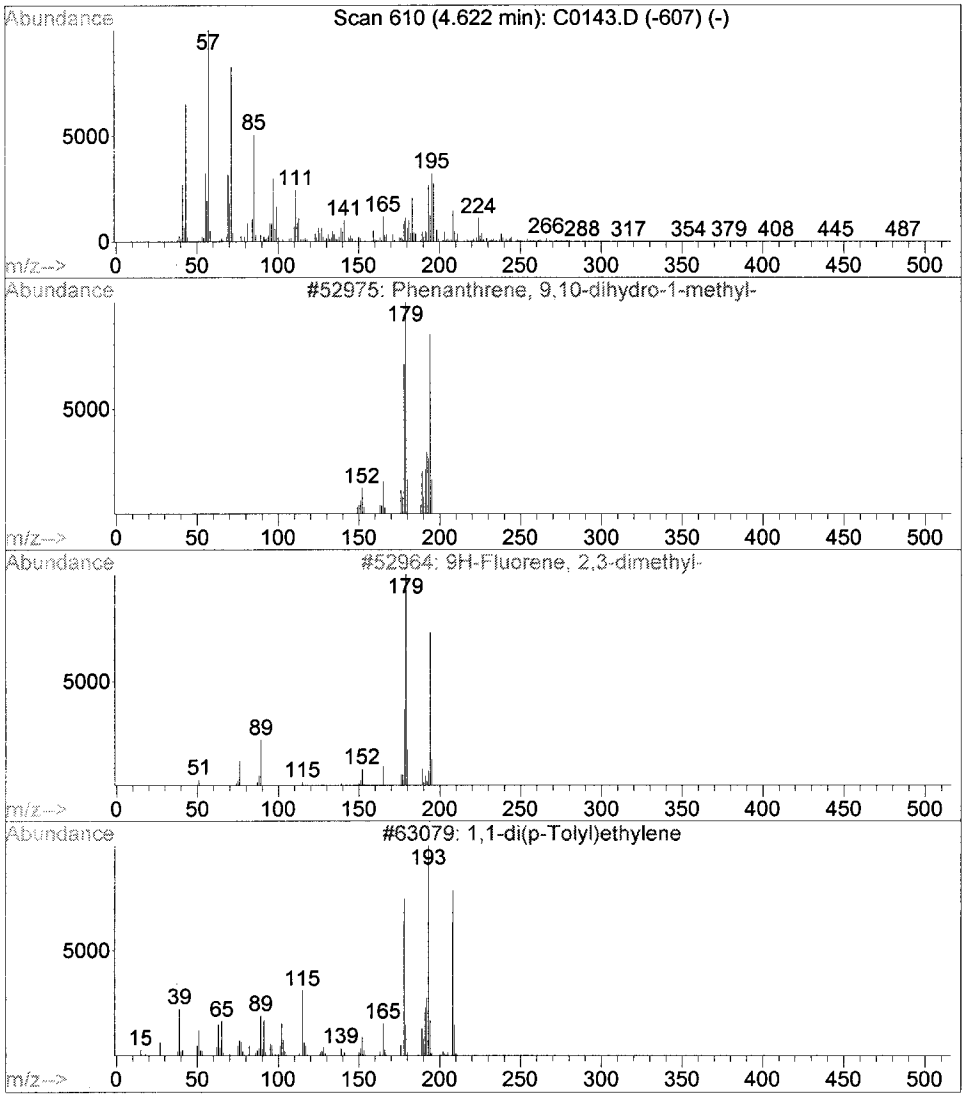
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

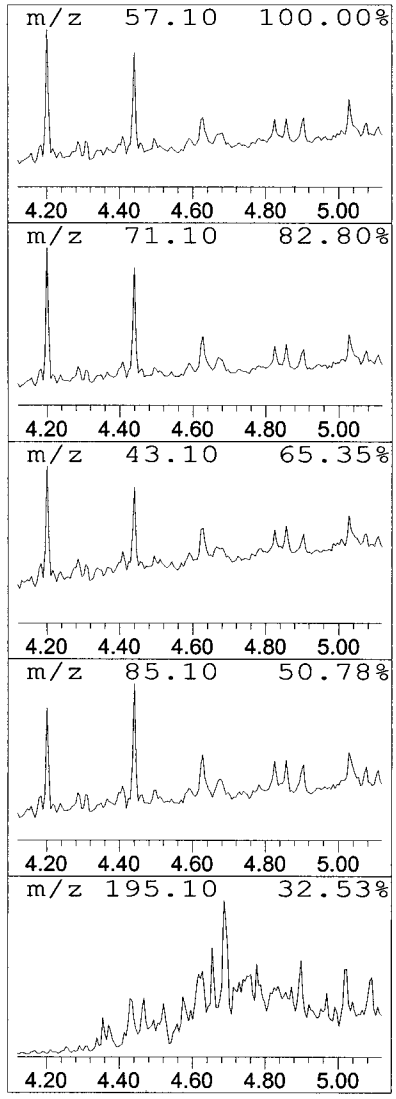
****

Peak Number 9 Unknown PAH Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.62	42.75 UG	2287600	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 9,10-dihydro-1-met...	194	C15H14	095676-48-5	55
2	9H-Fluorene, 2,3-dimethyl-	194	C15H14	004612-63-9	42
3	1,1-di(p-Tolyl)ethylene	208	C16H16	002919-20-2	38
4	9H-Fluorene, 9,9-dimethyl-	194	C15H14	004569-45-3	38
5	9-Anthracenemethanol	208	C15H12O	001468-95-7	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

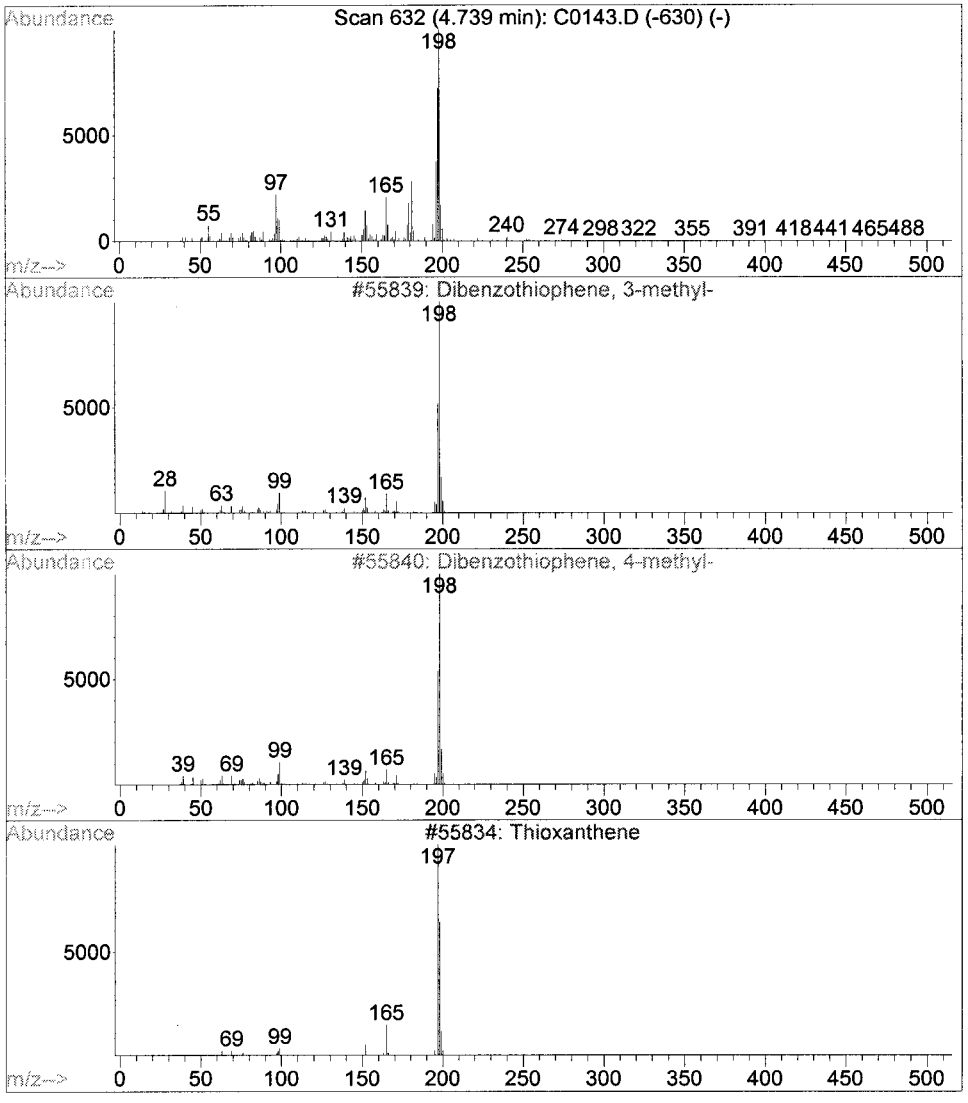
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

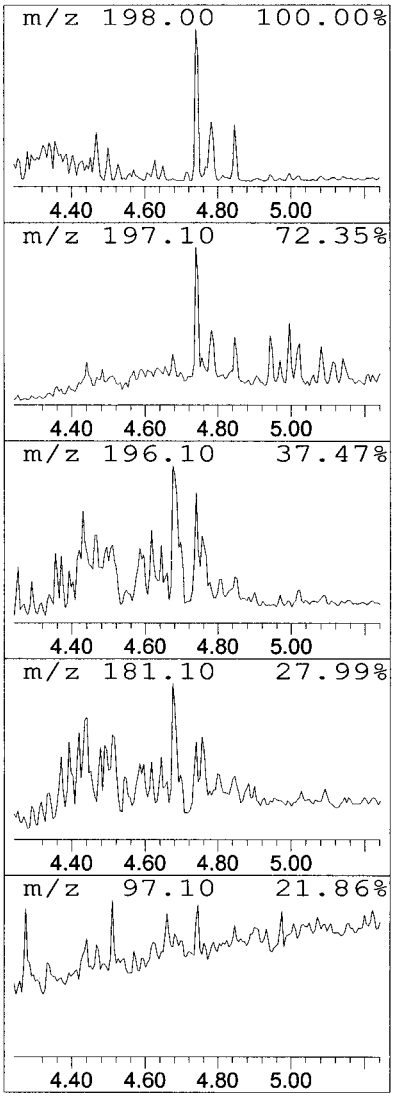
****

Peak Number 10 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.74	23.54 UG	1259560	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dibenzothiophene, 3-methyl-	198	C13H10S	016587-52-3	70
2	Dibenzothiophene, 4-methyl-	198	C13H10S	007372-88-5	64
3	Thioxanthene	198	C13H10S	000261-31-4	55
4	Benzene, 1-methoxy-4-(phenylmeth...	198	C14H14O	000834-14-0	50
5	Benzene, 1-fluoro-4-(2-phenyleth...	198	C14H11F	017404-69-2	49





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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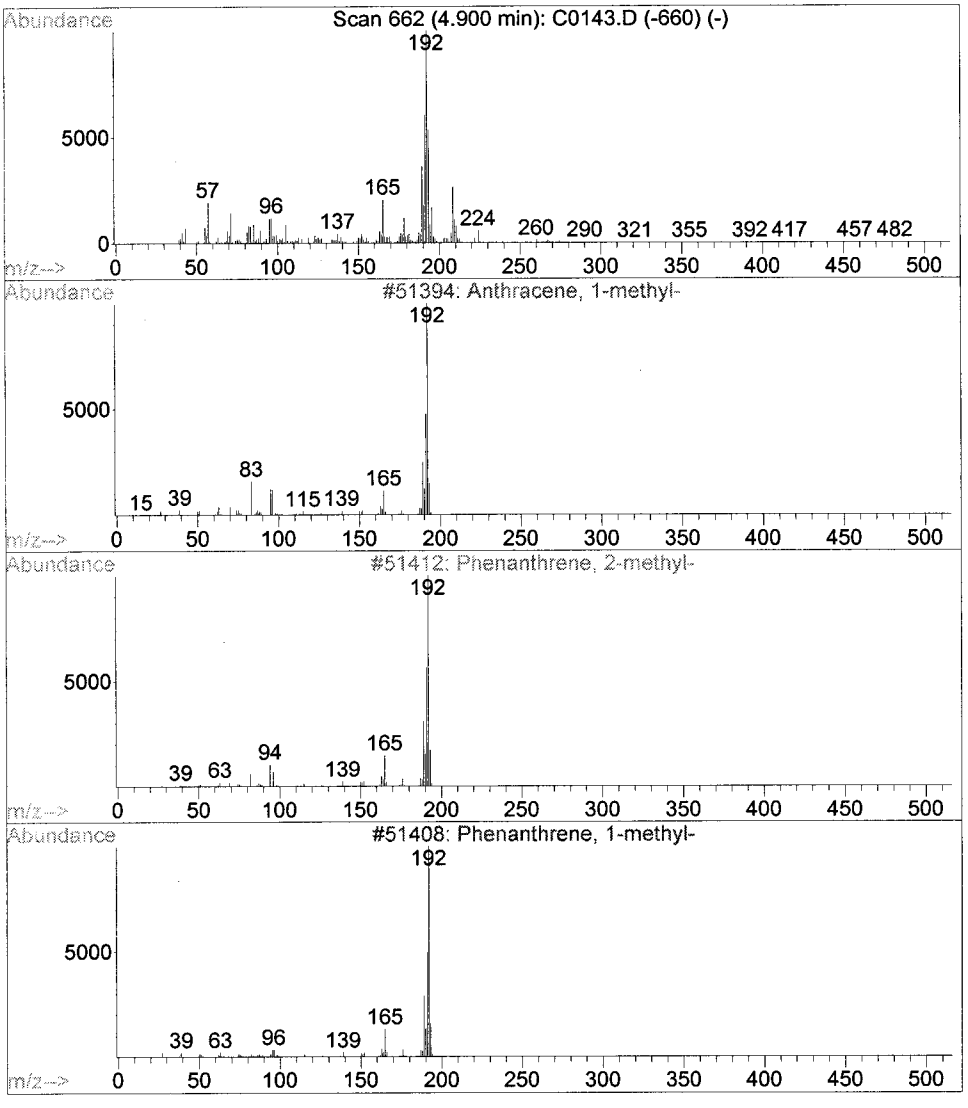
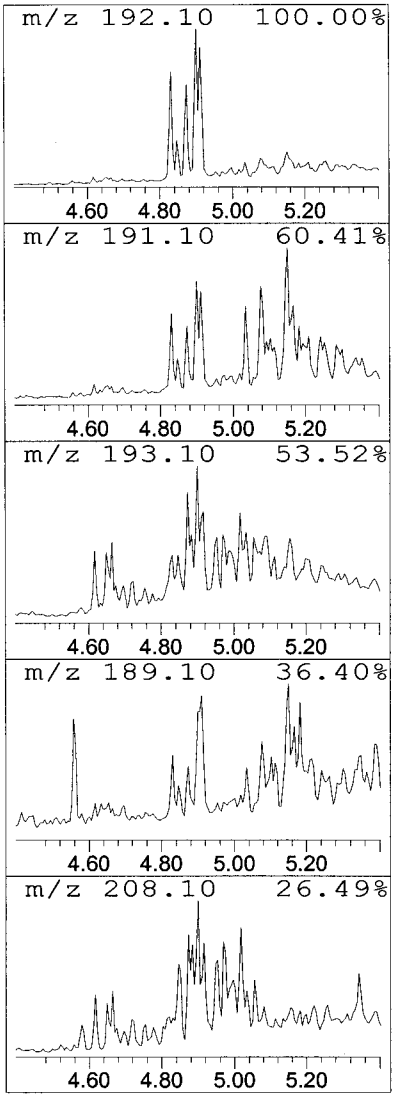
Peak Number 11 Unknown PAH Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.90	64.47 UG	3449570	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 1-methyl-	192	C15H12	000610-48-0	90
2	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	87
3	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	87
4	Anthracene, 1-methyl-	192	C15H12	000610-48-0	78
5	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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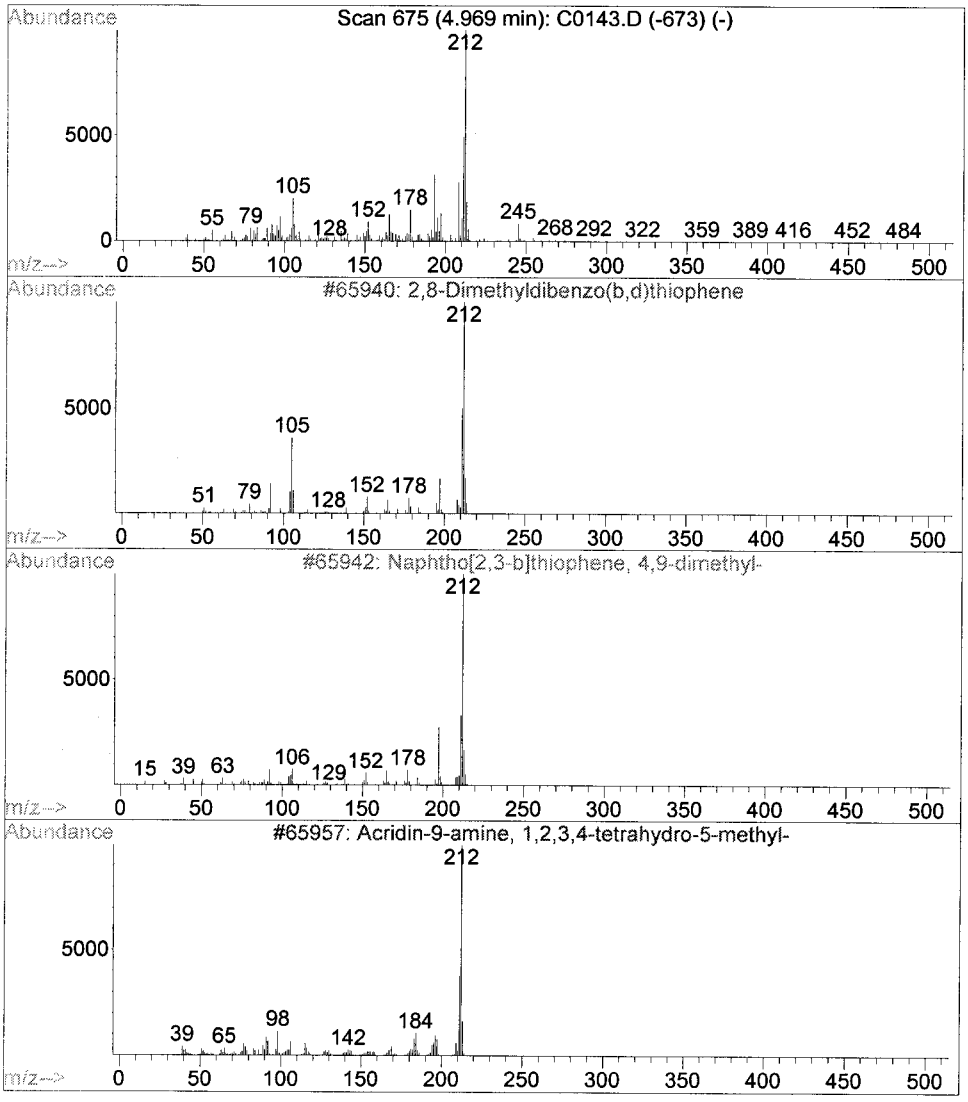
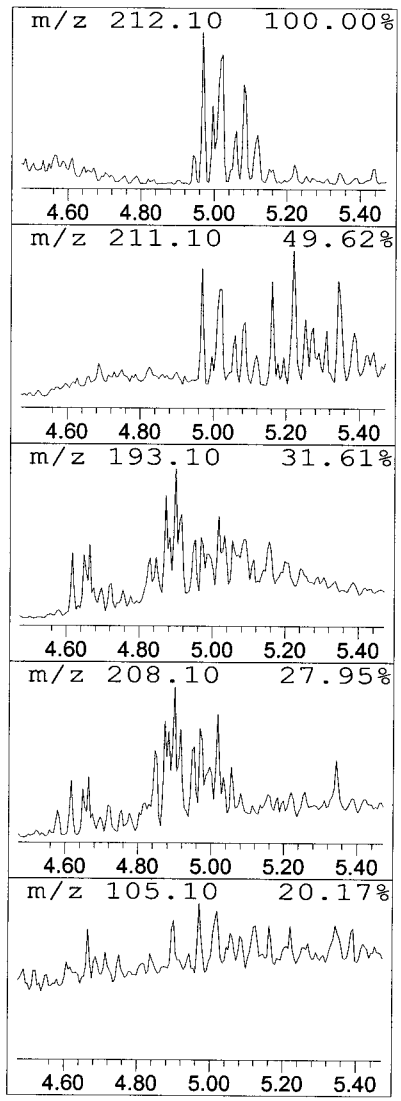
Peak Number 12 Unknown SV Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.97	24.96 UG	1335460	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,8-Dimethyldibenzo(b,d)thiophene	212	C14H12S	001207-15-4	62
2	Naphtho[2,3-b]thiophene, 4,9-dim...	212	C14H12S	016587-34-1	53
3	Acridin-9-amine, 1,2,3,4-tetrahy...	212	C14H16N2	005778-78-9	53
4	Vinylferrocene	212	C12H12Fe	001271-51-8	43
5	9H-Pyrido(3,4-b)indole, 6-methox...	212	C13H12N2O	003589-72-8	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

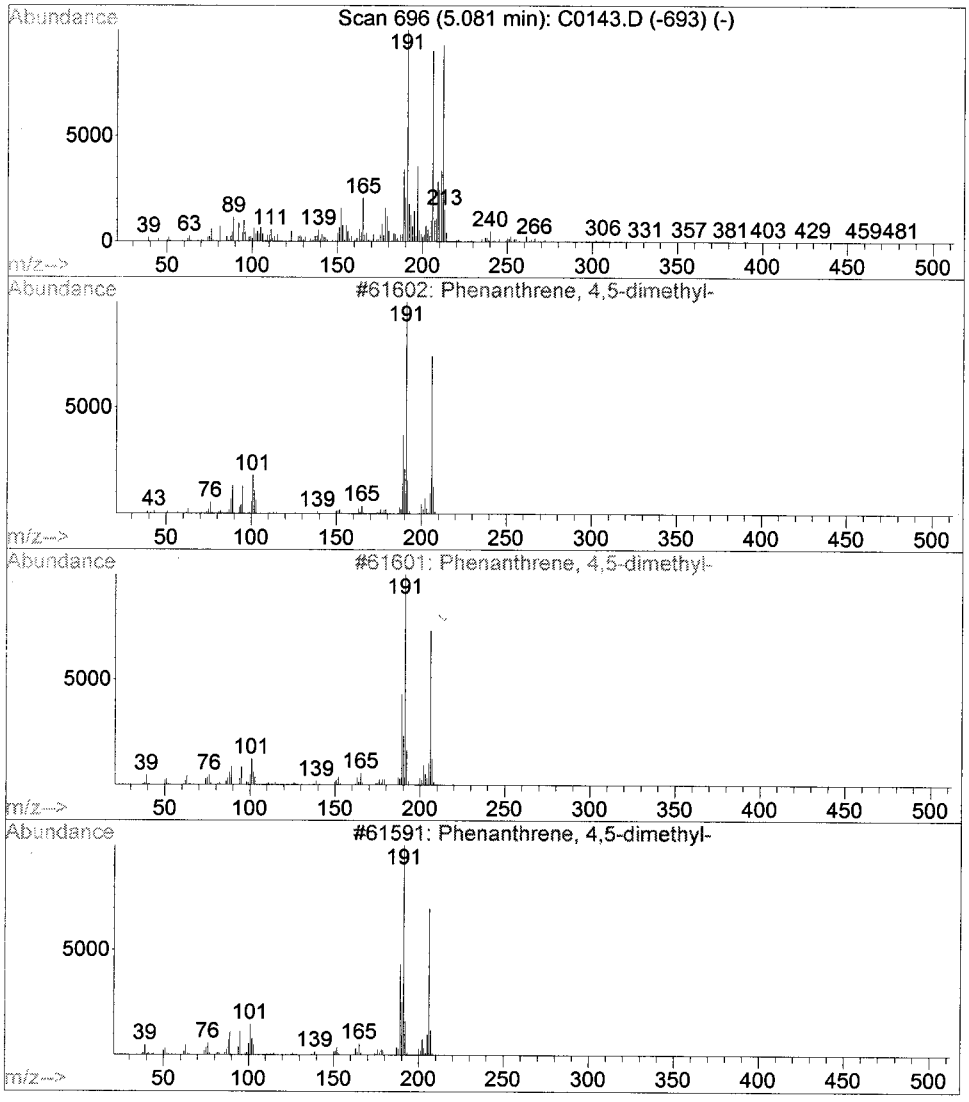
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

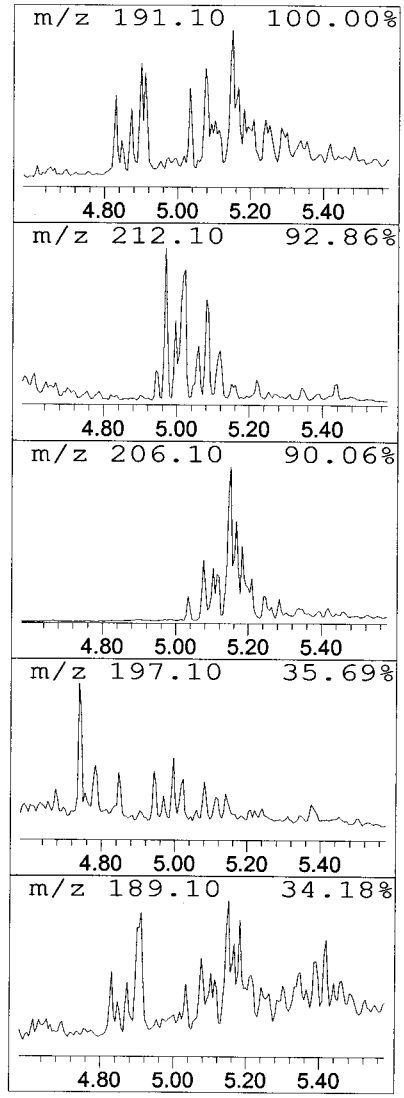
****

Peak Number 13 Unknown PAH Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.08	41.47 UG	2218700	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 4,5-dimethyl-	206	C16H14	003674-69-9	95
2	Phenanthrene, 4,5-dimethyl-	206	C16H14	003674-69-9	90
3	Phenanthrene, 4,5-dimethyl-	206	C16H14	003674-69-9	90
4	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	90
5	Anthracene, 2-ethyl-	206	C16H14	052251-71-5	89





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

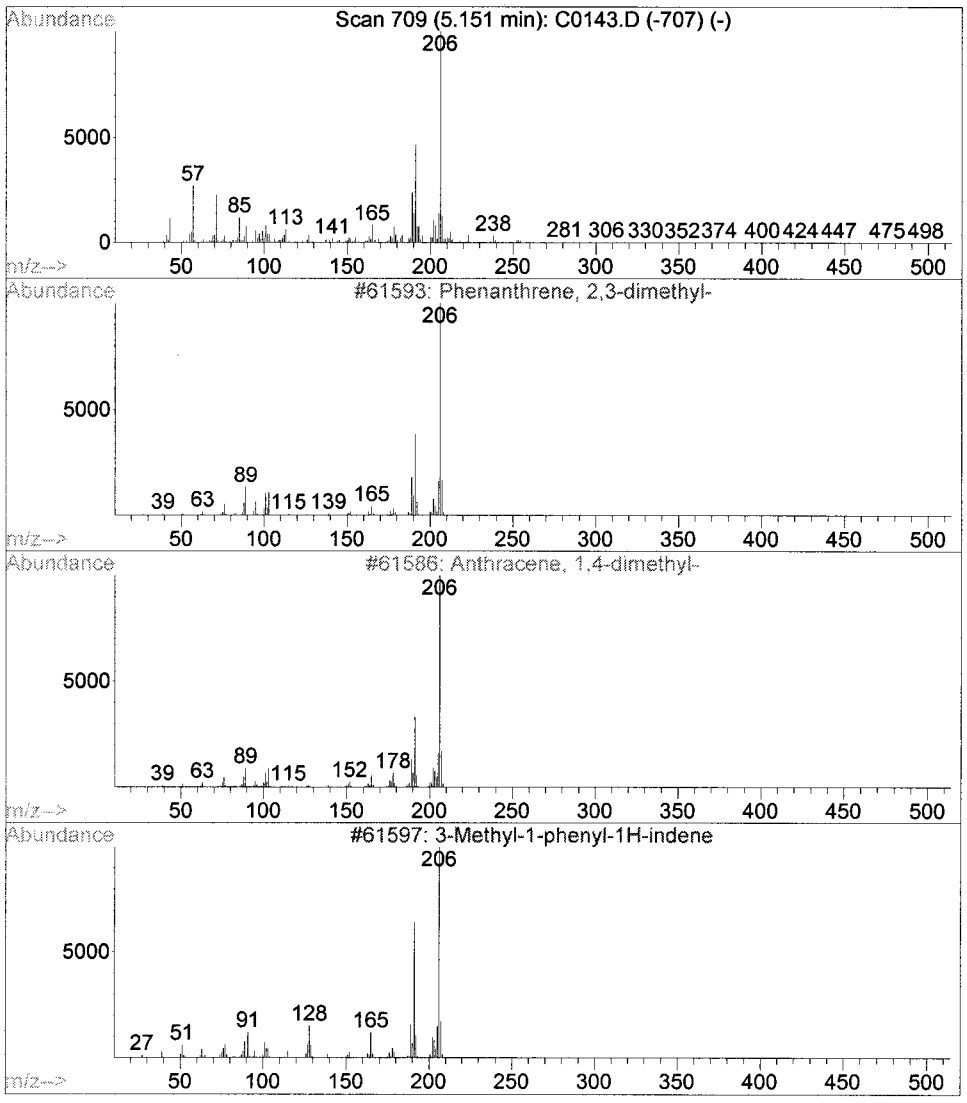
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

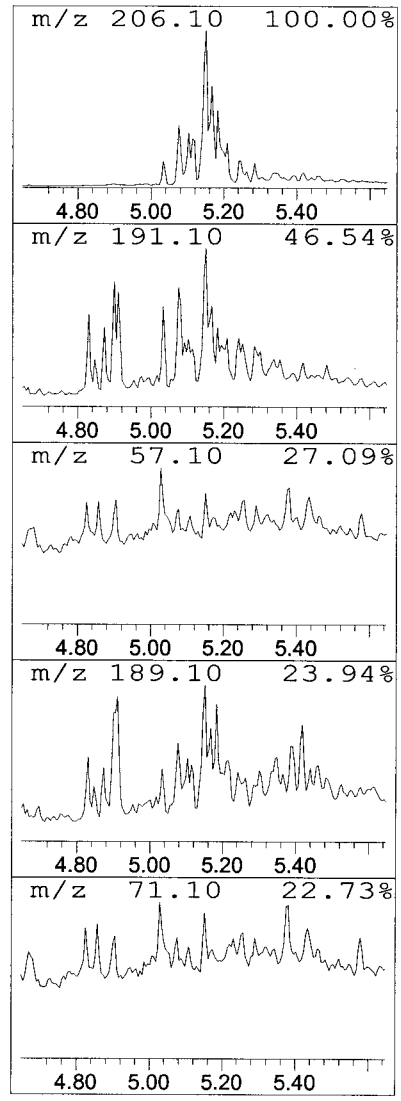
****

Peak Number 14 Unknown PAH Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.15	36.41 UG	1948300	Phenanthrene-d10	4.56

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	91
2	Anthracene, 1,4-dimethyl-	206	C16H14	000781-92-0	90
3	3-Methyl-1-phenyl-1H-indene	206	C16H14	022360-63-0	90
4	9,10-Dimethylanthracene	206	C16H14	000781-43-1	89
5	9,10-Dimethylanthracene	206	C16H14	000781-43-1	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0143.D
Acq On : 20 Sep 2013 20:38
Operator : EDM
Sample : AOC-7-2/,E13-09197-004,S,15.44g,17.8,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

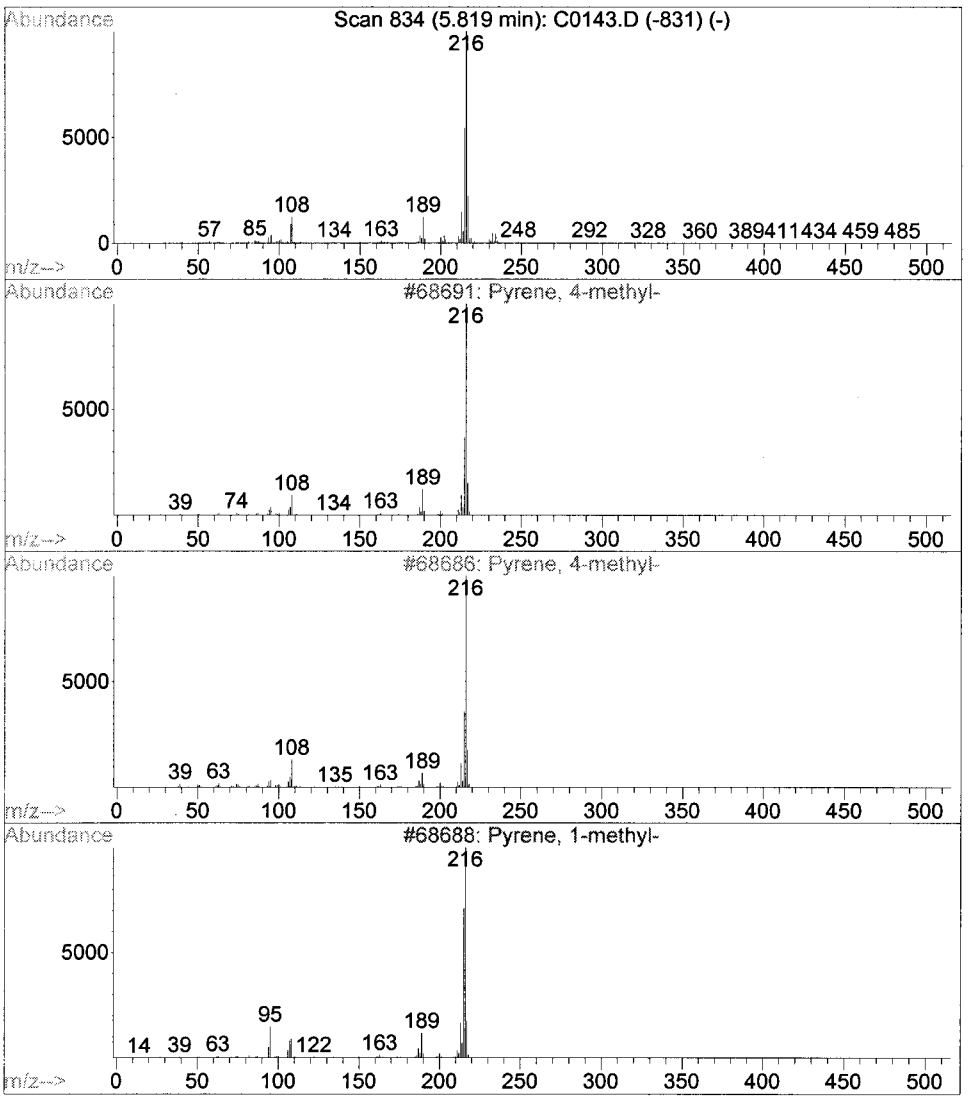
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

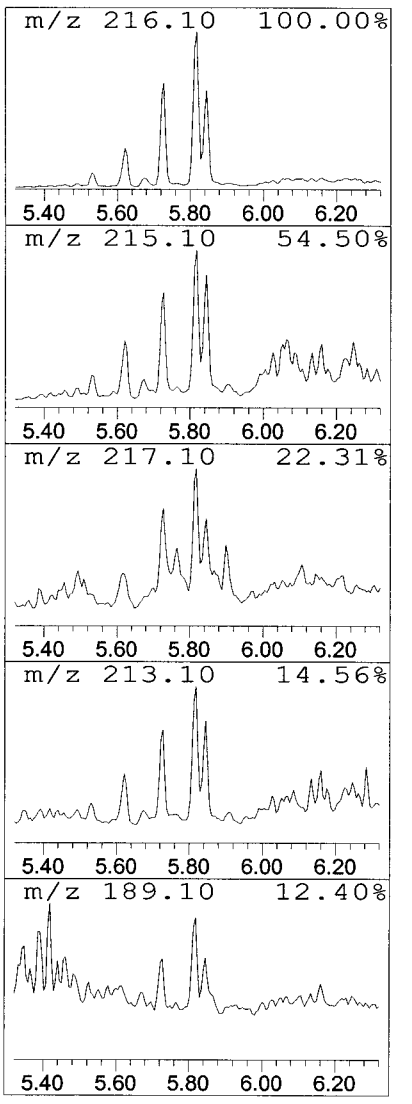
****

Peak Number 15 Unknown PAH Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.82	20.02 UG	2342650	Chrysene-d12	6.34

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrene, 4-methyl-	216	C17H12	003353-12-6	95
2	Pyrene, 4-methyl-	216	C17H12	003353-12-6	94
3	Pyrene, 1-methyl-	216	C17H12	002381-21-7	93
4	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	91
5	Pyrene, 2-methyl-	216	C17H12	003442-78-2	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 23 09:46:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

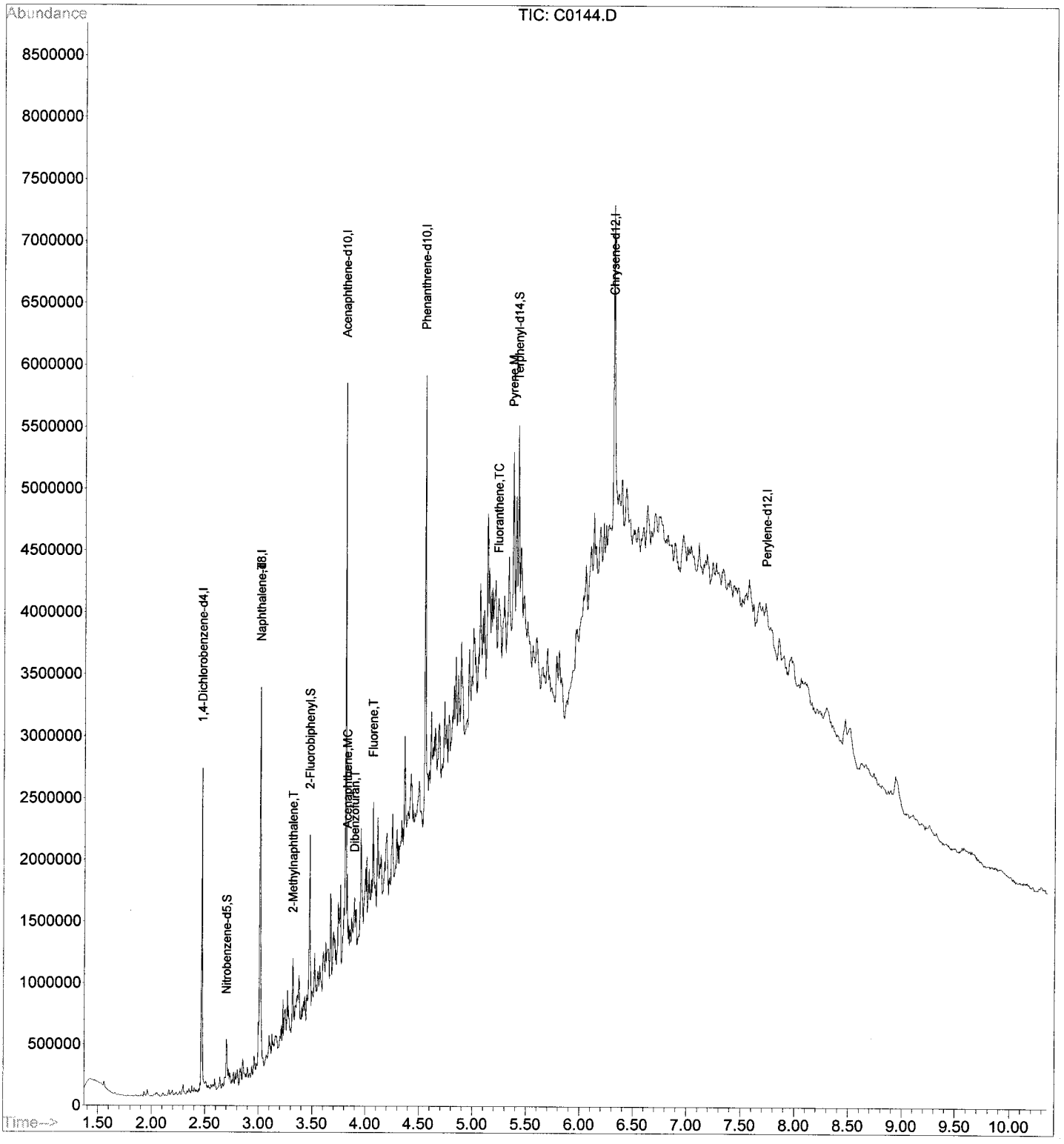
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	257207	40.00	UG	0.00
23) Naphthalene-d8	3.01	136	1032506	40.00	UG	-0.01
43) Acenaphthene-d10	3.81	164	528735	40.00	UG	-0.05
66) Phenanthrene-d10	4.55	188	747508m	40.00	UG	-0.10
82) Chrysene-d12	6.31	240	669465m	40.00	UG	-0.13
92) Perylene-d12	7.74	264	284830	40.00	UG	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.70	82	115949	13.88	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 27.76%			
47) 2-Fluorobiphenyl	3.47	172	253860	14.20	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 28.40%#			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.42	244	246910m	13.91	UG	-0.18
Spiked Amount 50.000	Range 15 - 122		Recovery = 27.82%			
Target Compounds						Qvalue
34) Naphthalene	3.02	128	58040	2.06	UG	# 64
41) 2-Methylnaphthalene	3.32	142	94302	5.10	UG	100
55) Acenaphthene	3.83	153	44105	2.92	UG	87
59) Dibenzofuran	3.90	168	17107	0.84	UG	# 69
61) Fluorene	4.07	166	51997	3.11	UG	84
79) Fluoranthene	5.23	202	66710m	3.12	UG	
83) Pyrene	5.37	202	224612m	9.95	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 23 09:46:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.555	35	36	53	rVB	98782	194616	6.72%	0.704%
2	2.298	171	175	180	rBV2	85716	79046	2.73%	0.286%
3	2.469	205	207	213	rBV	2577740	1359923	46.96%	4.922%
4	2.640	233	239	241	rBV4	109027	95068	3.28%	0.344%
5	2.683	245	247	249	rBV2	77749	72007	2.49%	0.261%
6	2.699	249	250	253	rVV	318133	219523	7.58%	0.795%
7	2.768	259	263	265	rBV5	97411	71880	2.48%	0.260%
8	2.806	267	270	272	rVB3	131916	111746	3.86%	0.404%
9	2.827	272	274	278	rBV2	144340	162723	5.62%	0.589%
10	2.854	278	279	284	rBV4	169808	151704	5.24%	0.549%
11	2.960	297	299	302	rBV4	159214	139264	4.81%	0.504%
12	3.014	304	309	313	rVV	3077001	2471222	85.34%	8.944%
13	3.099	322	325	328	rBV4	189600	178585	6.17%	0.646%
14	3.126	328	330	331	rVV2	169075	86294	2.98%	0.312%
15	3.158	334	336	340	rVB5	115221	169187	5.84%	0.612%
16	3.228	347	349	350	rBV2	337871	144233	4.98%	0.522%
17	3.249	350	353	355	rVV3	233201	233188	8.05%	0.844%
18	3.270	355	357	363	rVB3	346529	299712	10.35%	1.085%
19	3.318	363	366	369	rBV	608313	464050	16.02%	1.680%
20	3.345	369	371	372	rBV2	122922	106877	3.69%	0.387%
21	3.377	375	377	379	rVB3	361369	241394	8.34%	0.874%
22	3.420	383	385	386	rBV2	127986	83628	2.89%	0.303%
23	3.452	389	391	392	rBV	214580	178103	6.15%	0.645%
24	3.473	392	395	398	rVB	1391187	891566	30.79%	3.227%
25	3.495	398	399	402	rBV3	121195	120386	4.16%	0.436%
26	3.521	402	404	407	rBV3	360131	248311	8.57%	0.899%
27	3.553	407	410	411	rBV2	172290	120306	4.15%	0.435%
28	3.569	411	413	417	rVB5	213213	176694	6.10%	0.640%
29	3.602	417	419	422	rBV3	326363	386821	13.36%	1.400%
30	3.623	422	423	424	rBV	246020	103720	3.58%	0.375%
31	3.666	430	431	434	rBV	691179	468042	16.16%	1.694%
32	3.698	434	437	442	rBV5	354068	550120	19.00%	1.991%
33	3.740	444	445	447	rBV2	405397	298700	10.31%	1.081%
34	3.762	447	449	451	rVB	645496	341517	11.79%	1.236%
35	3.810	451	458	460	rBV	4700516	2895850	100.00%	10.481%
36	3.895	472	474	475	rBV2	249893	126773	4.38%	0.459%
37	3.954	482	485	489	rBV2	885444	811598	28.03%	2.937%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2213.M
Title : BNA CALIBRATION METHOD

38	4.029	497	499	501	rBV2	301720	179882	6.21%	0.651%
39	4.066	504	506	509	rVV	747309	413550	14.28%	1.497%
40	4.109	512	514	516	rBV2	729133	597033	20.62%	2.161%
41	4.291	546	548	549	rBV	322168	193717	6.69%	0.701%
42	4.360	559	561	564	rBV2	882914	669765	23.13%	2.424%
43	4.552	594	597	599	rBV	3501662	2069980	71.48%	7.492%
44	4.606	605	607	609	rBV	579384	402440	13.90%	1.457%
45	4.729	628	630	632	rBV2	513790	364225	12.58%	1.318%
46	4.836	648	650	652	rVB2	557076	362005	12.50%	1.310%
47	4.884	657	659	665	rVB2	749738	794588	27.44%	2.876%
48	4.958	671	673	676	rBV3	628742	614819	21.23%	2.225%
49	5.060	690	692	695	rBV2	652277	516040	17.82%	1.868%
50	5.129	703	705	707	rBV	1136189	906664	31.31%	3.282%
51	5.370	748	750	753	rVB2	1288872	932879	32.21%	3.376%
52	5.397	753	755	757	rBV	933200	674983	23.31%	2.443%
53	5.418	757	759	761	rVB	1350398	786253	27.15%	2.846%
54	6.310	923	926	932	rBV	2518393	2296110	79.29%	8.310%

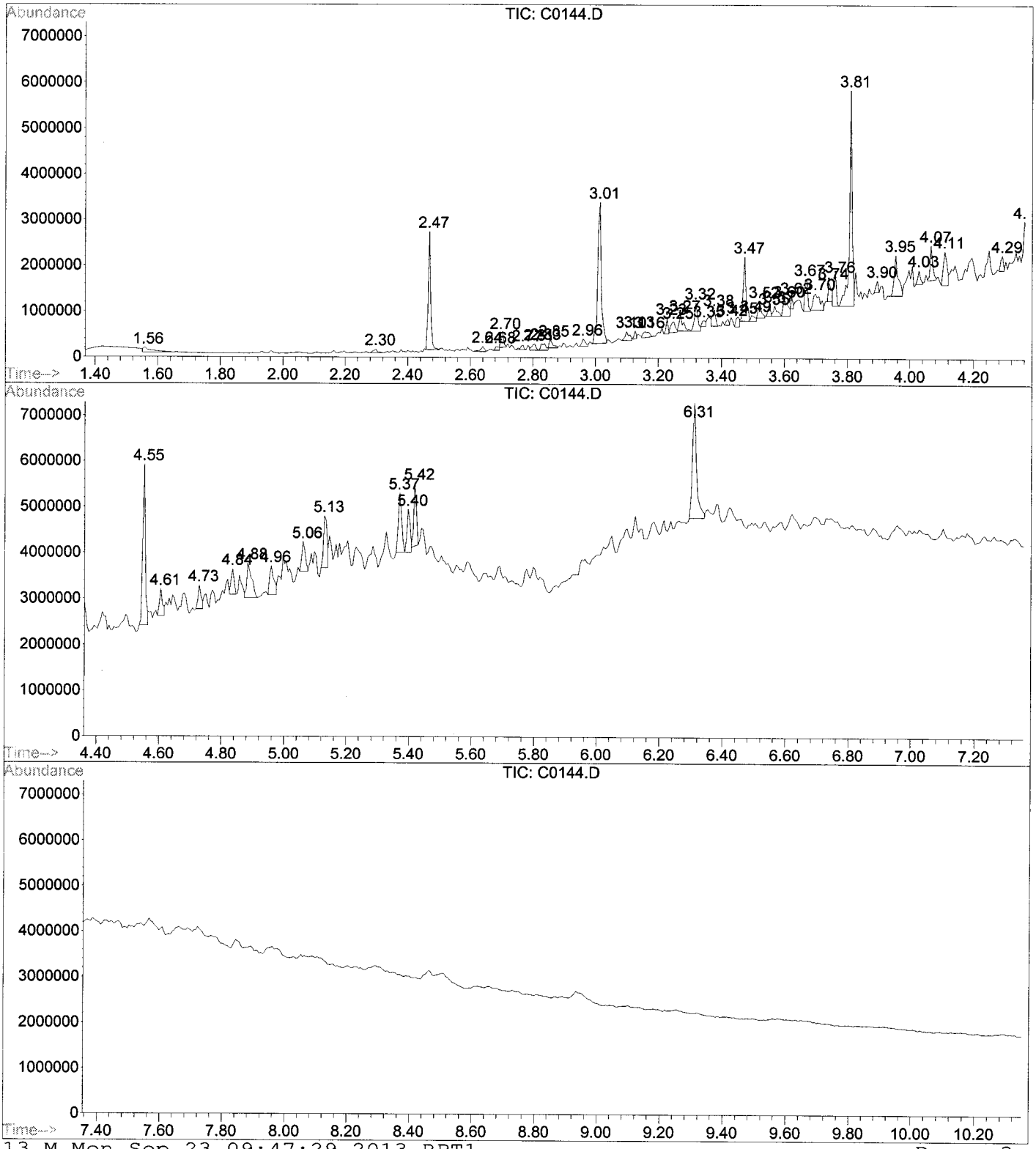
Sum of corrected areas: 27629310

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

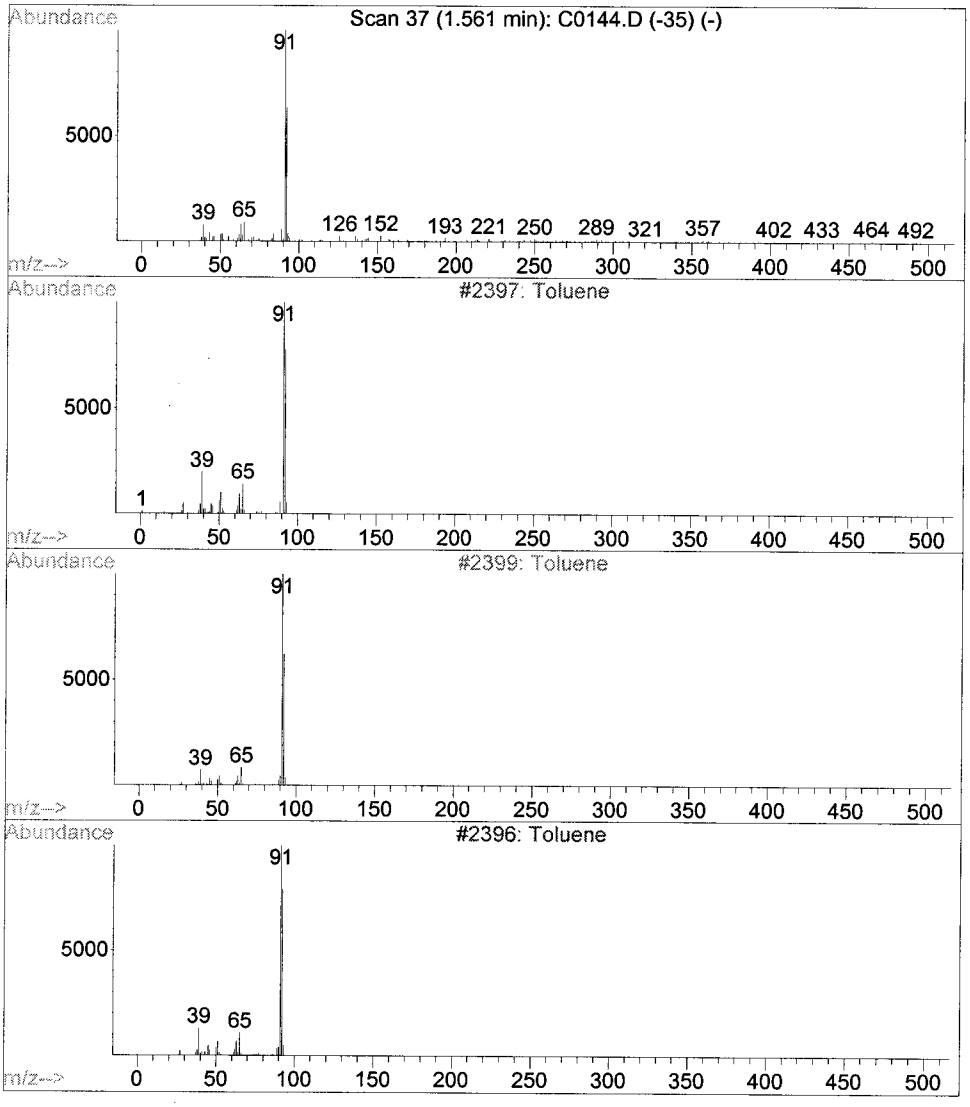
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

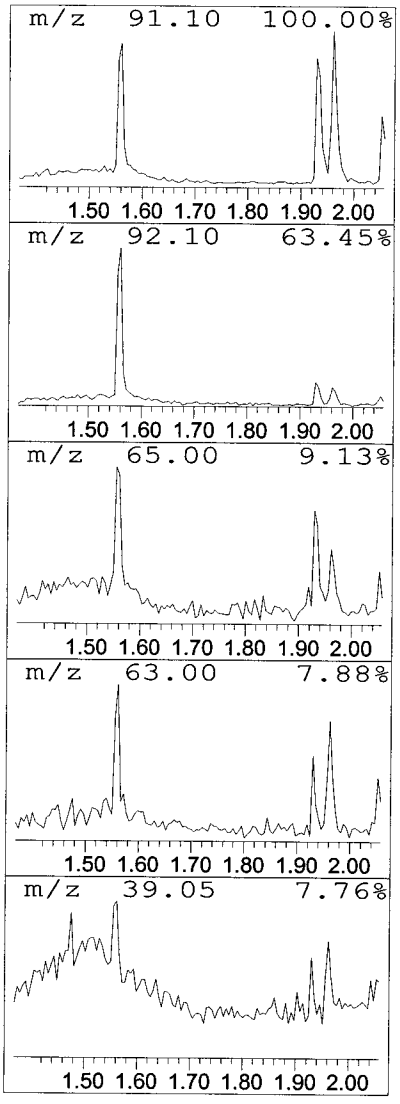
****

Peak Number 1 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.56	5.72 UG	194616	1,4-Dichlorobenzene-d4	2.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Toluene	92	C7H8	000108-88-3	76
2	Toluene	92	C7H8	000108-88-3	76
3	Toluene	92	C7H8	000108-88-3	68
4	1,3,5-Cycloheptatriene	92	C7H8	000544-25-2	64
5	Toluene	92	C7H8	000108-88-3	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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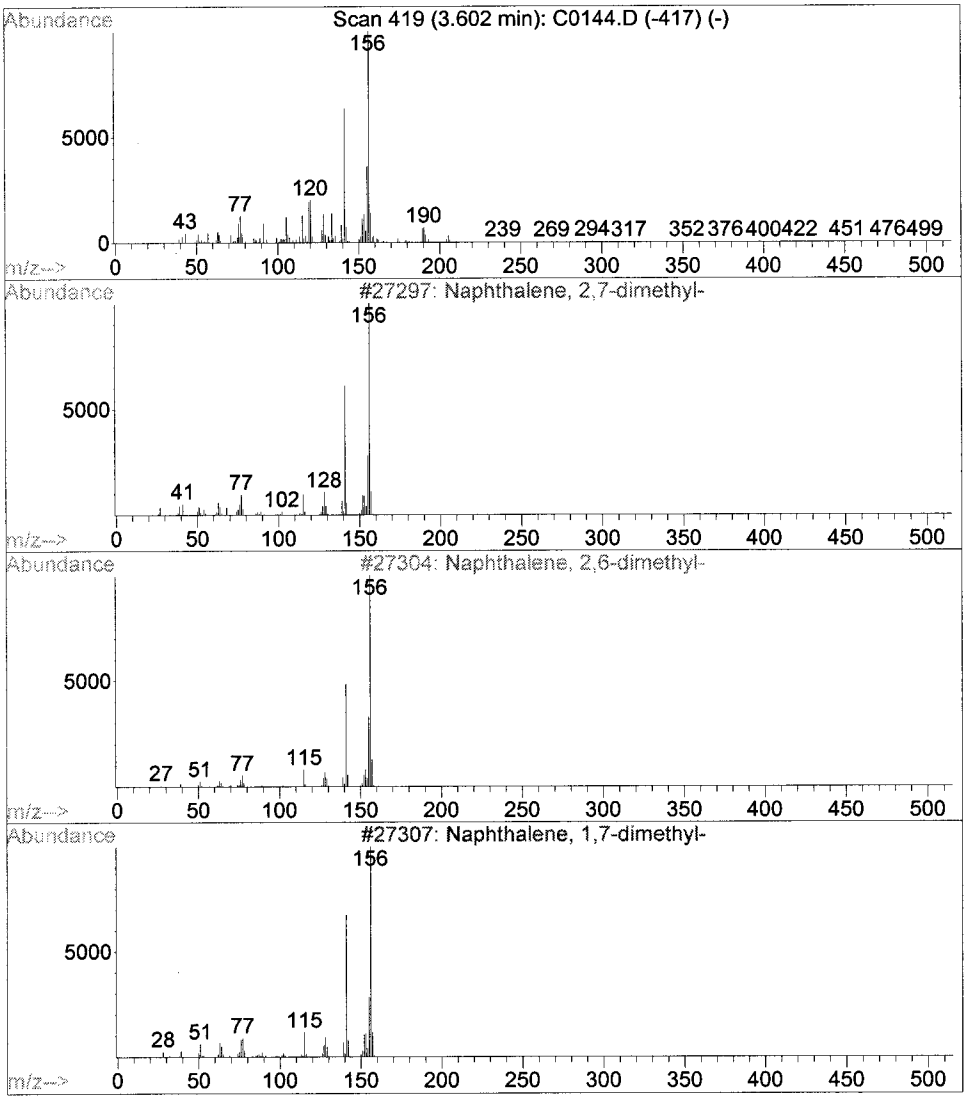
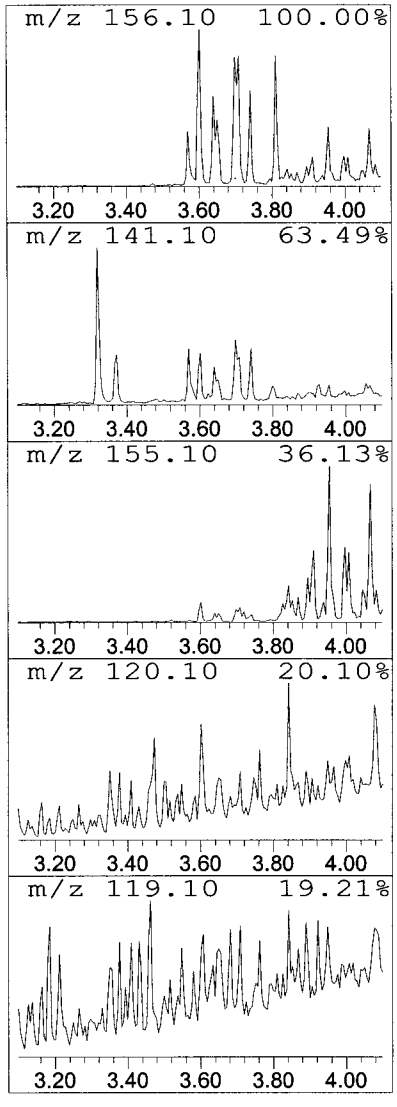
Peak Number 2 Unknown PAH Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.60	5.34 UG	386821	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
2	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	96
3	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	96
4	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	96
5	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	96





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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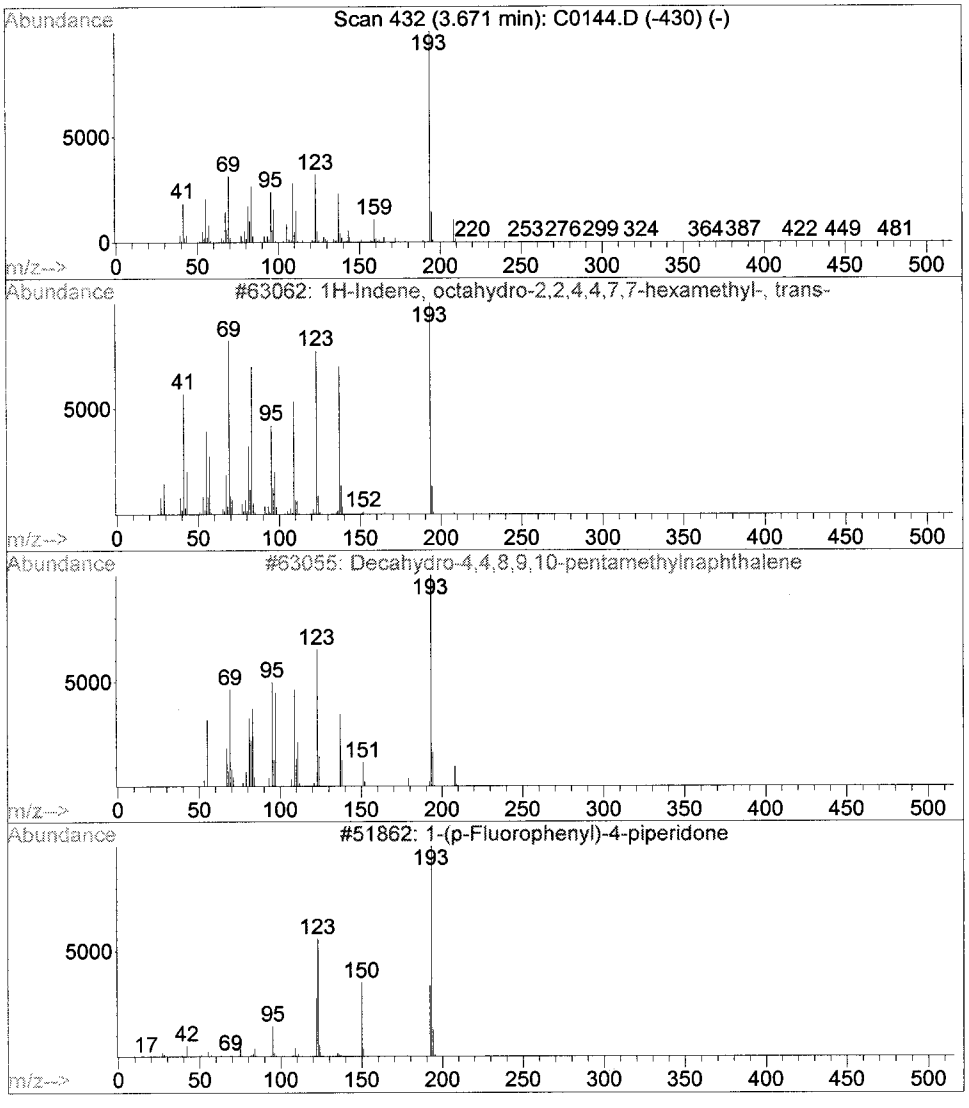
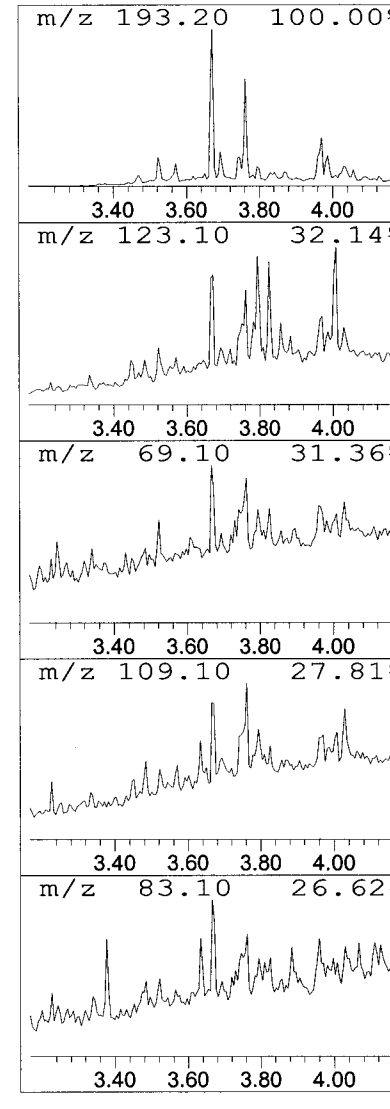
Peak Number 3 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.67	6.47 UG	468042	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, octahydro-2,2,4,4,7,7...	208	C15H28	054832-83-6	59
2	Decahydro-4,4,8,9,10-pentamethyl...	208	C15H28	080655-44-3	52
3	1-(p-Fluorophenyl)-4-piperidone	193	C11H12FNO	1000238-56-7	38
4	Borinic acid, diethyl-, 3,3,5-tr...	208	C13H25BO	057387-76-5	27
5	2-Anthracenamine	193	C14H11N	000613-13-8	22





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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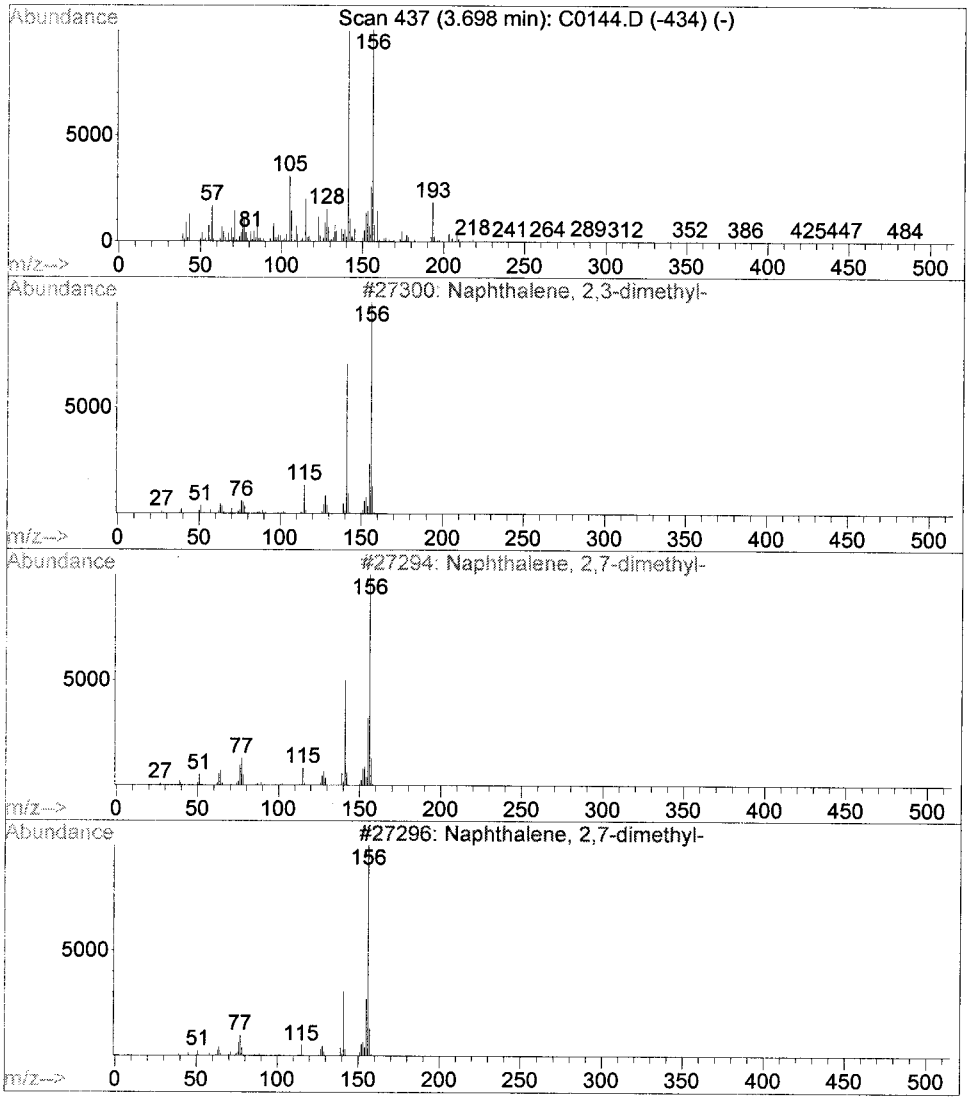
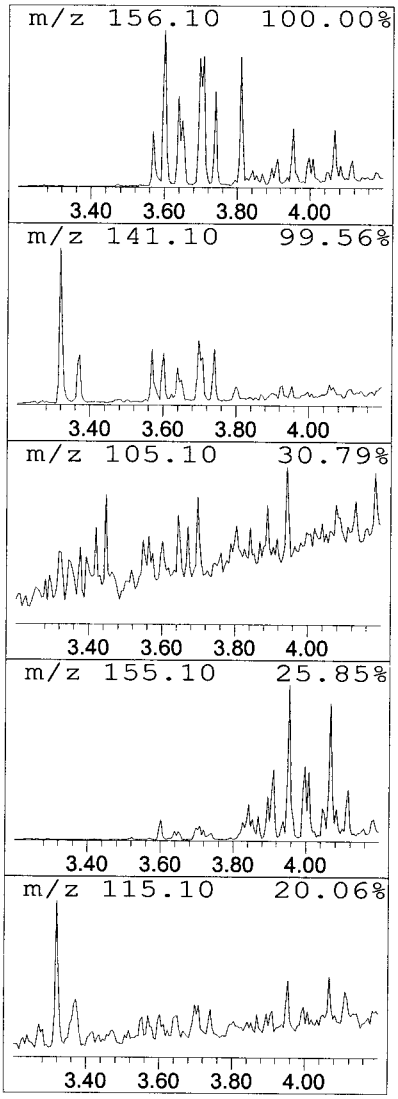
Peak Number 4 Unknown PAH Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.70	7.60 UG	550120	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	93
2	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	91
3	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	91
4	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	91
5	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

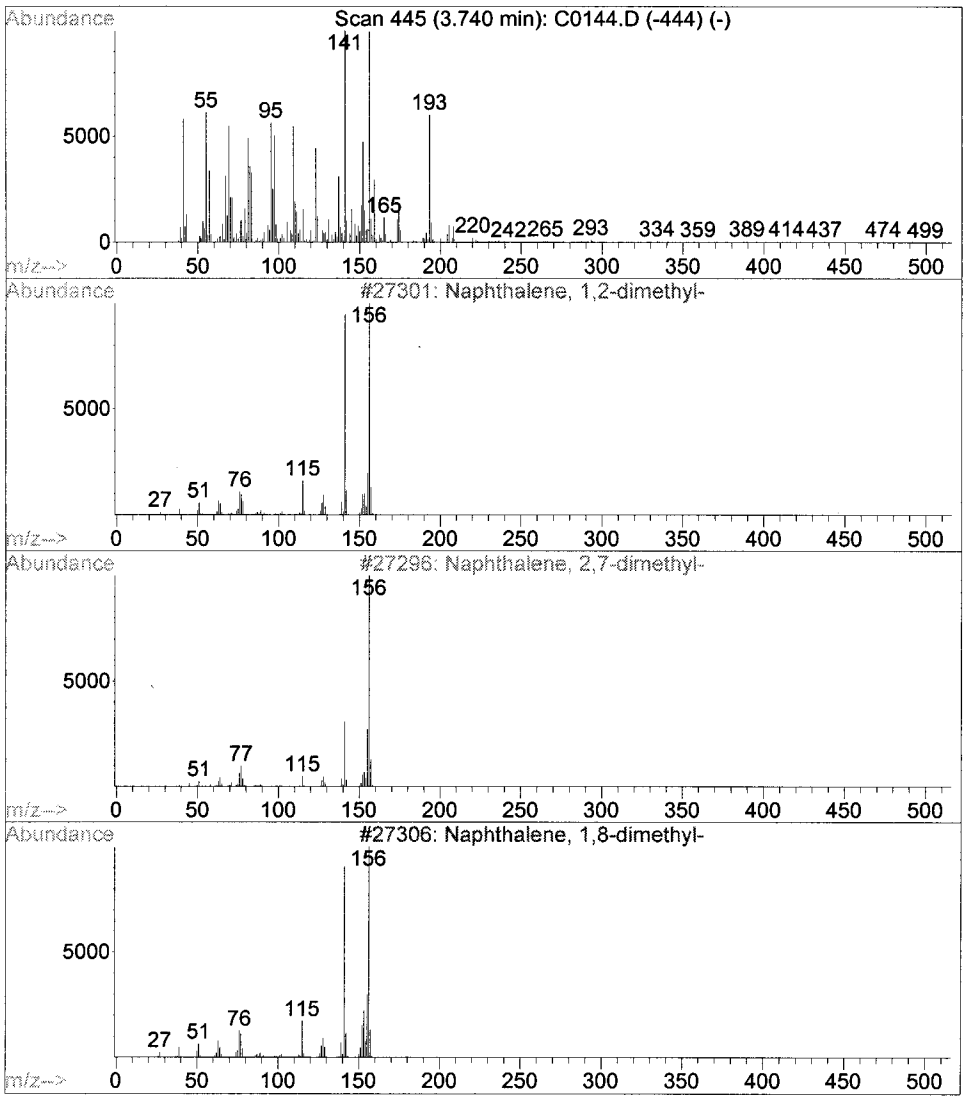
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

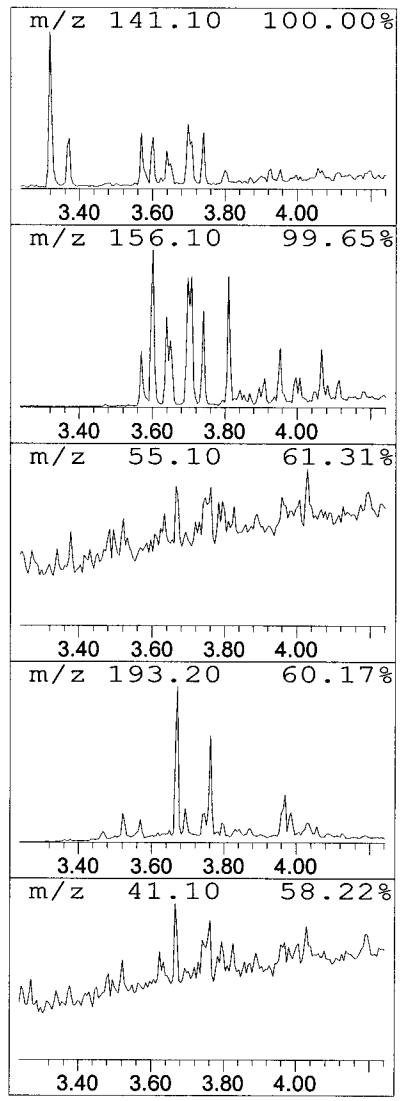
****

Peak Number 5 Unknown PAH Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.74	4.13 UG	298700	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2-dimethyl-	156	C12H12	000573-98-8	52
2	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	38
3	Naphthalene, 1,8-dimethyl-	156	C12H12	000569-41-5	38
4	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	38
5	4-(Methylthio)thiophenol	156	C7H8S2	001122-97-0	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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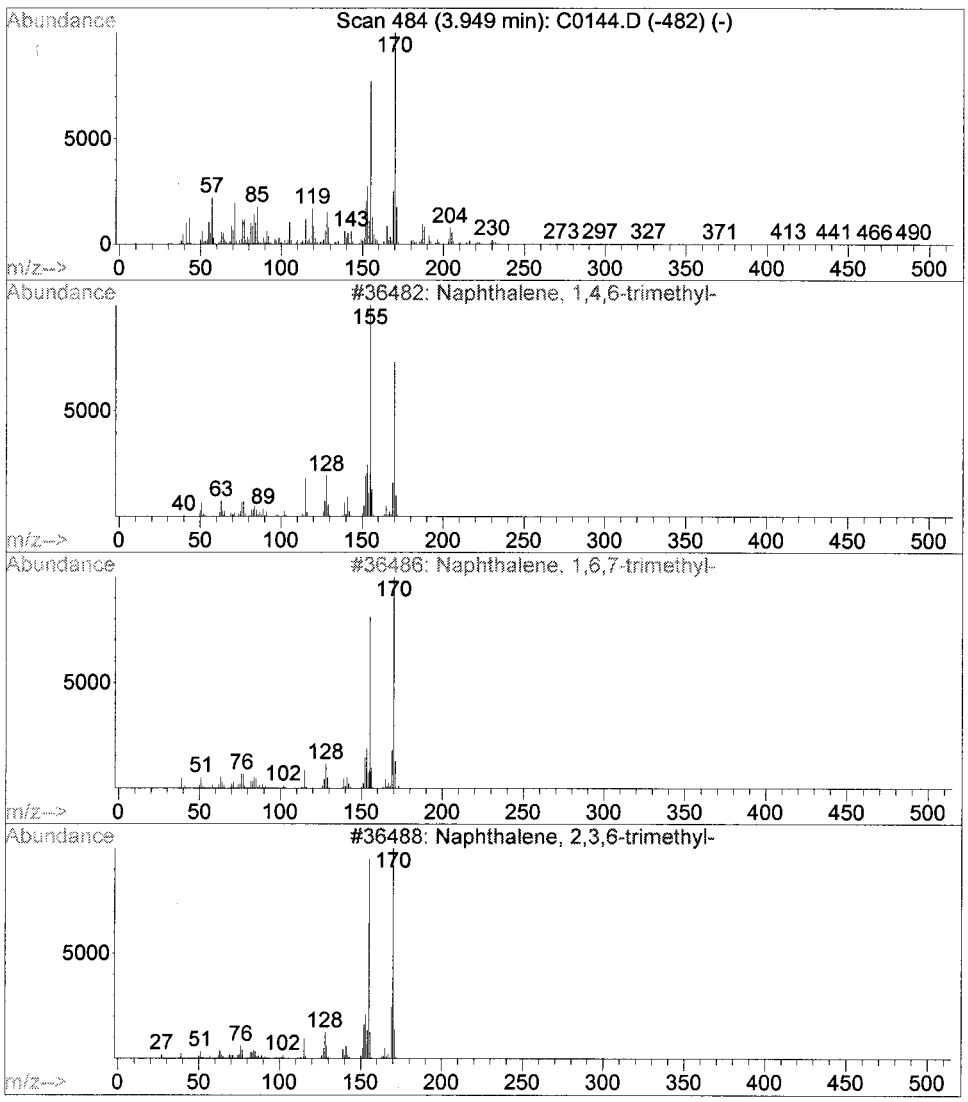
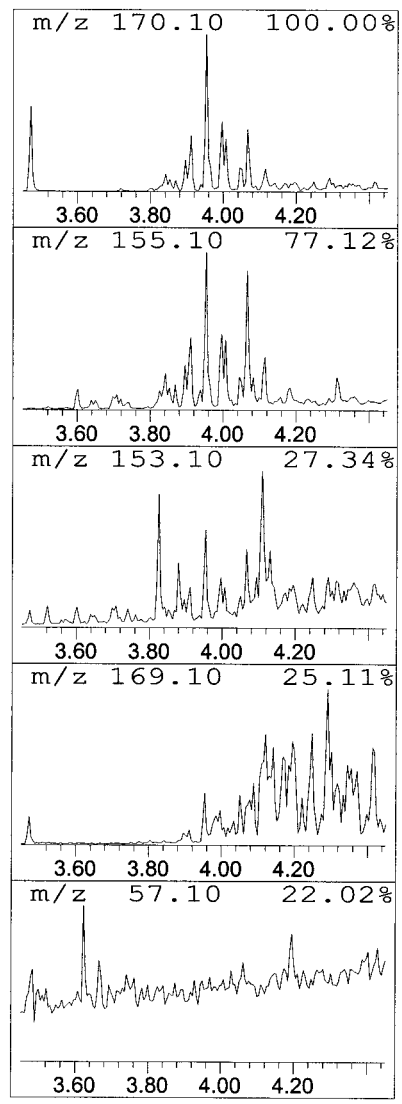
Peak Number 6 Unknown PAH Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.95	11.21 UG	811598	Acenaphthene-d10	3.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,4,6-trimethyl-	170	C13H14	002131-42-2	97
2	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	97
3	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	97
4	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	96
5	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	96





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

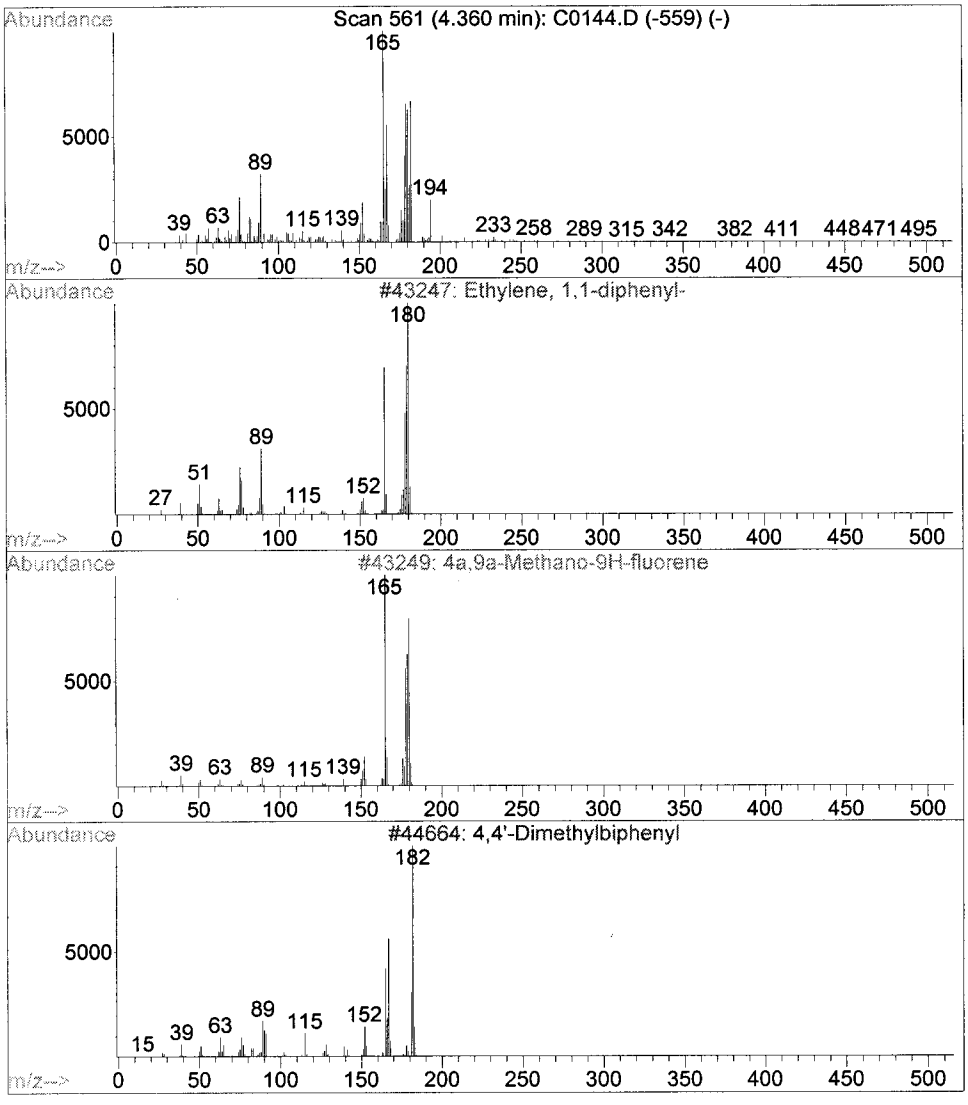
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

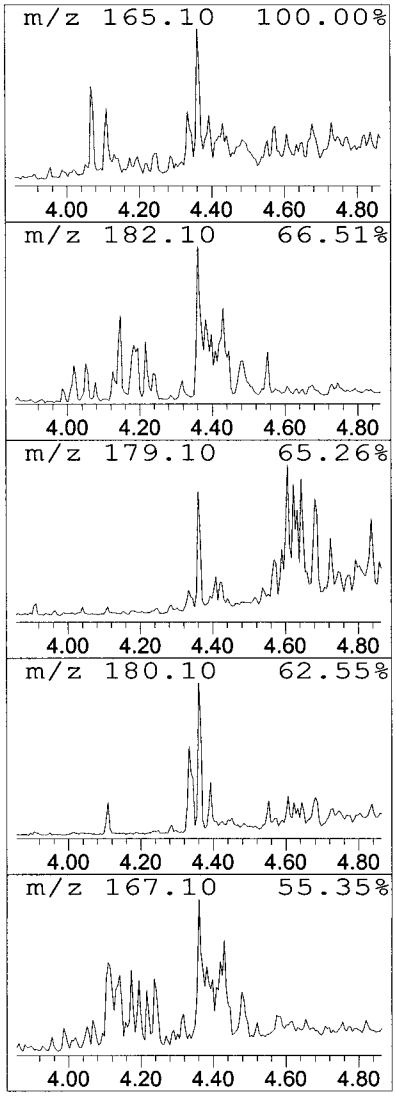
****

Peak Number 7 Unknown PAH Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.36	12.94 UG	669765	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethylene, 1,1-diphenyl-	180	C14H12	000530-48-3	55
2	4a,9a-Methano-9H-fluorene	180	C14H12	019540-84-2	55
3	4,4'-Dimethylbiphenyl	182	C14H14	000613-33-2	45
4	9H-Fluorene, 2-methyl-	180	C14H12	001430-97-3	43
5	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	41





E13-09197 0237

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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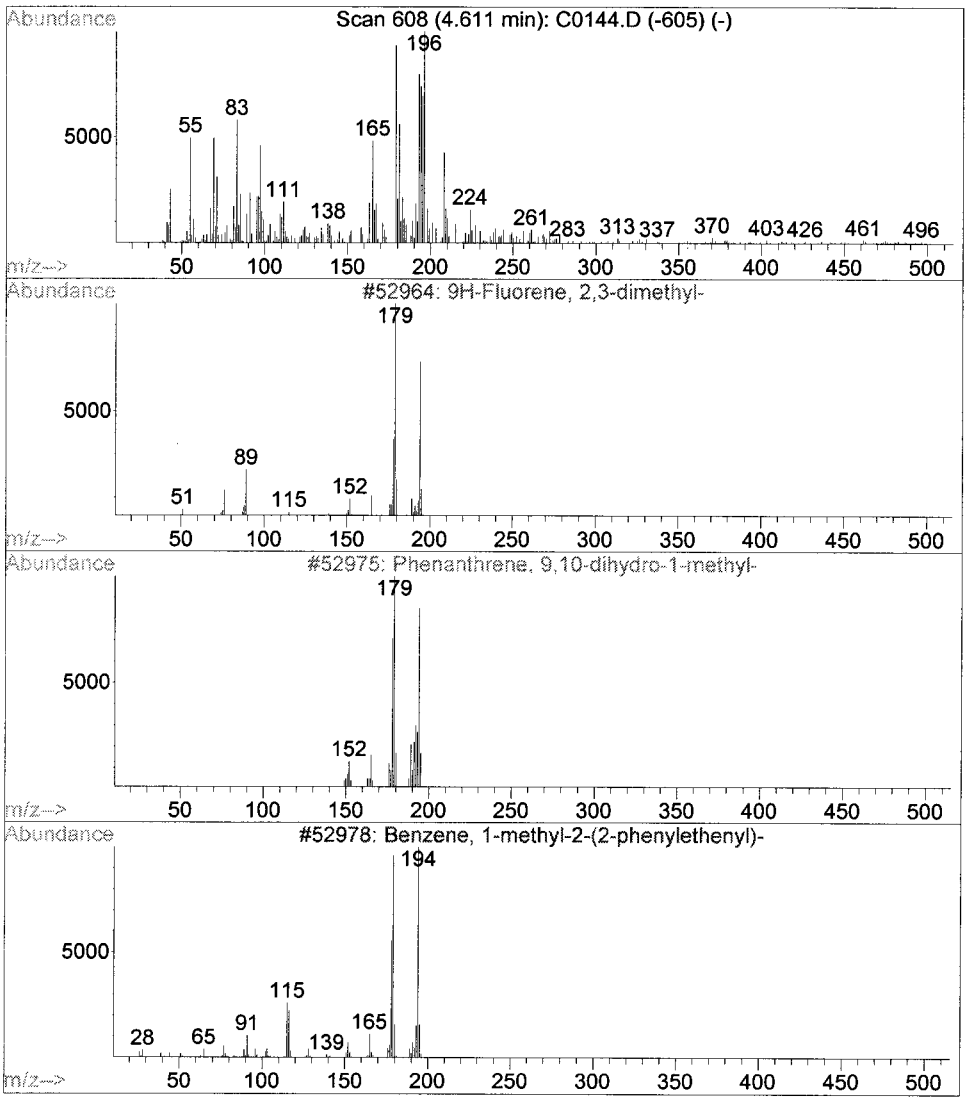
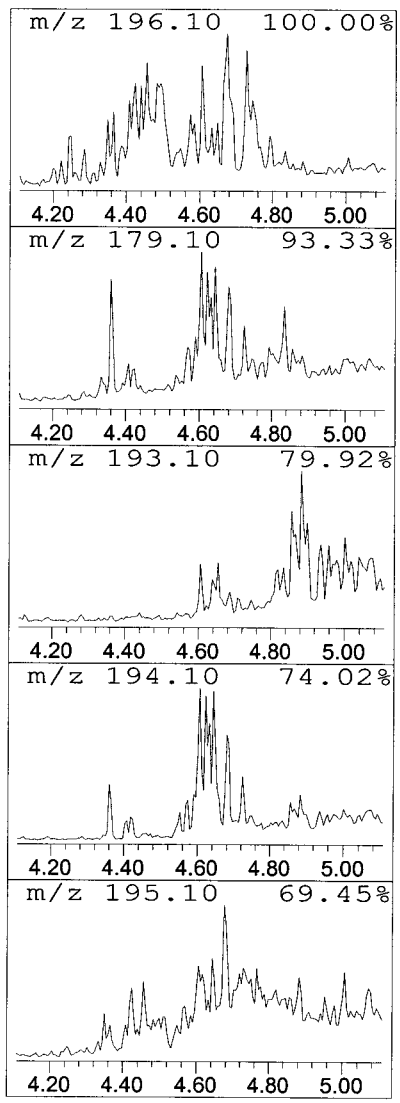
Peak Number 8 Unknown PAH Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.61	7.78 UG	402440	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9H-Fluorene, 2,3-dimethyl-	194	C15H14	004612-63-9	89
2	Phenanthrene, 9,10-dihydro-1-met...	194	C15H14	095676-48-5	46
3	Benzene, 1-methyl-2-(2-phenyleth...	194	C15H14	074685-42-0	43
4	10,11-Dihydro-5H-dibenzo(a,d)cyc...	194	C15H14	000833-48-7	43
5	Benzene, 1,1'-cyclopropylidenebis-	194	C15H14	003282-18-6	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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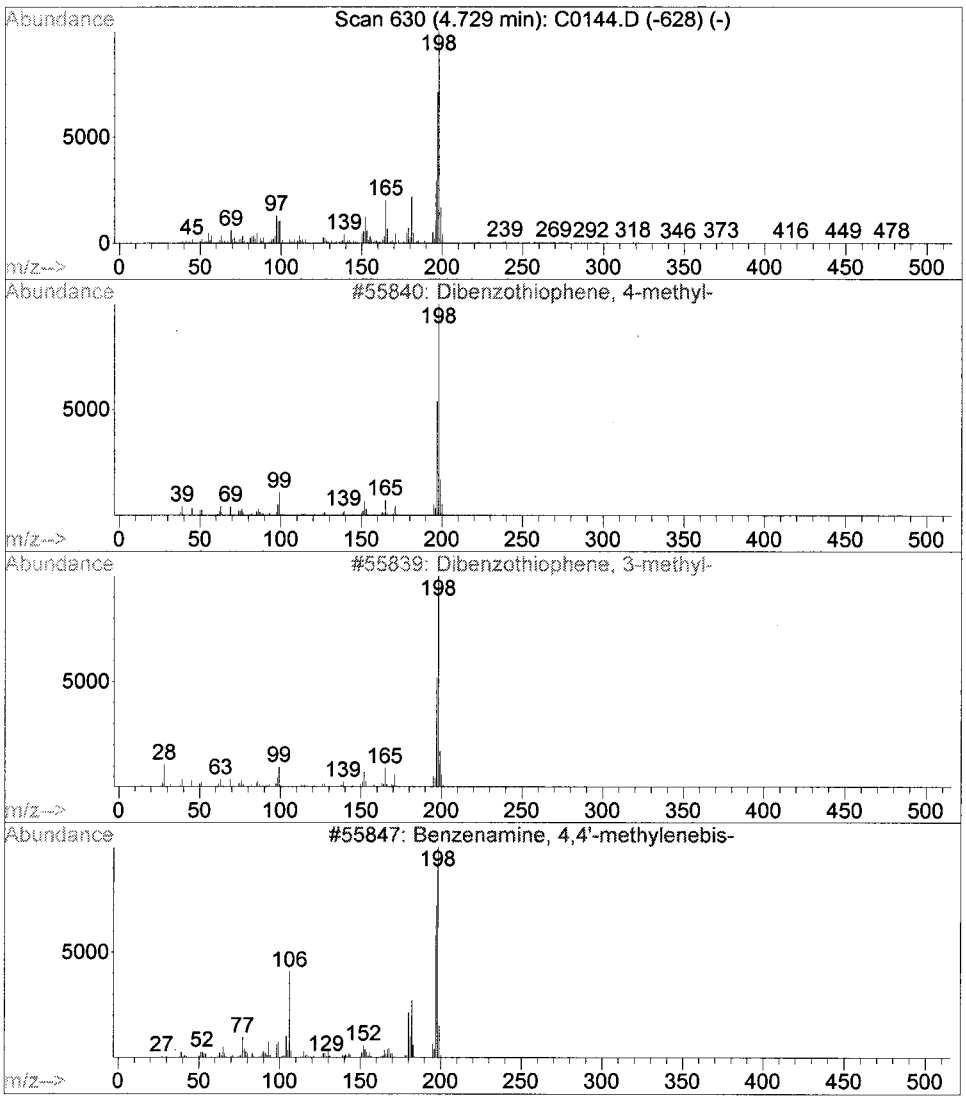
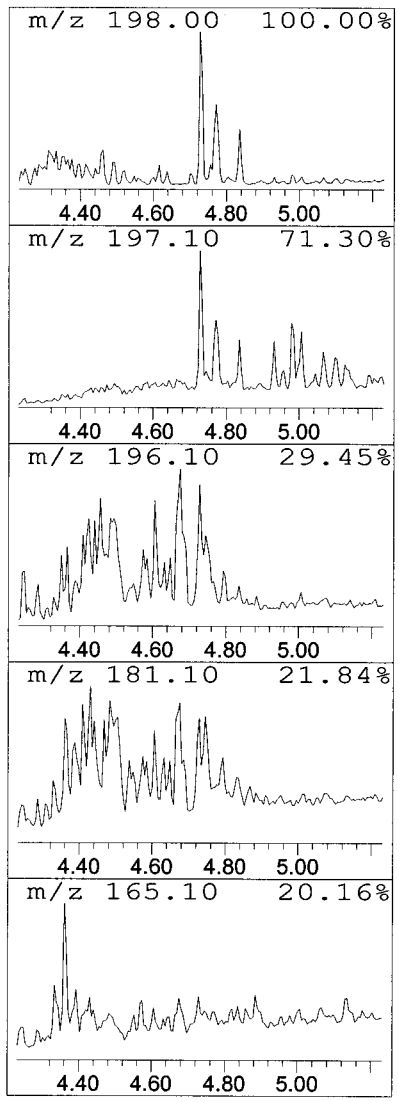
Peak Number 9 Unknown SV Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.73	7.04 UG	364225	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dibenzothiophene, 4-methyl-	198	C13H10S	007372-88-5	76
2	Dibenzothiophene, 3-methyl-	198	C13H10S	016587-52-3	58
3	Benzenamine, 4,4'-methylenebis-	198	C13H14N2	000101-77-9	58
4	Benzenamine, 4,4'-methylenebis-	198	C13H14N2	000101-77-9	50
5	9-Acridinamine, 1,2,3,4-tetrahydro-	198	C13H14N2	000321-64-2	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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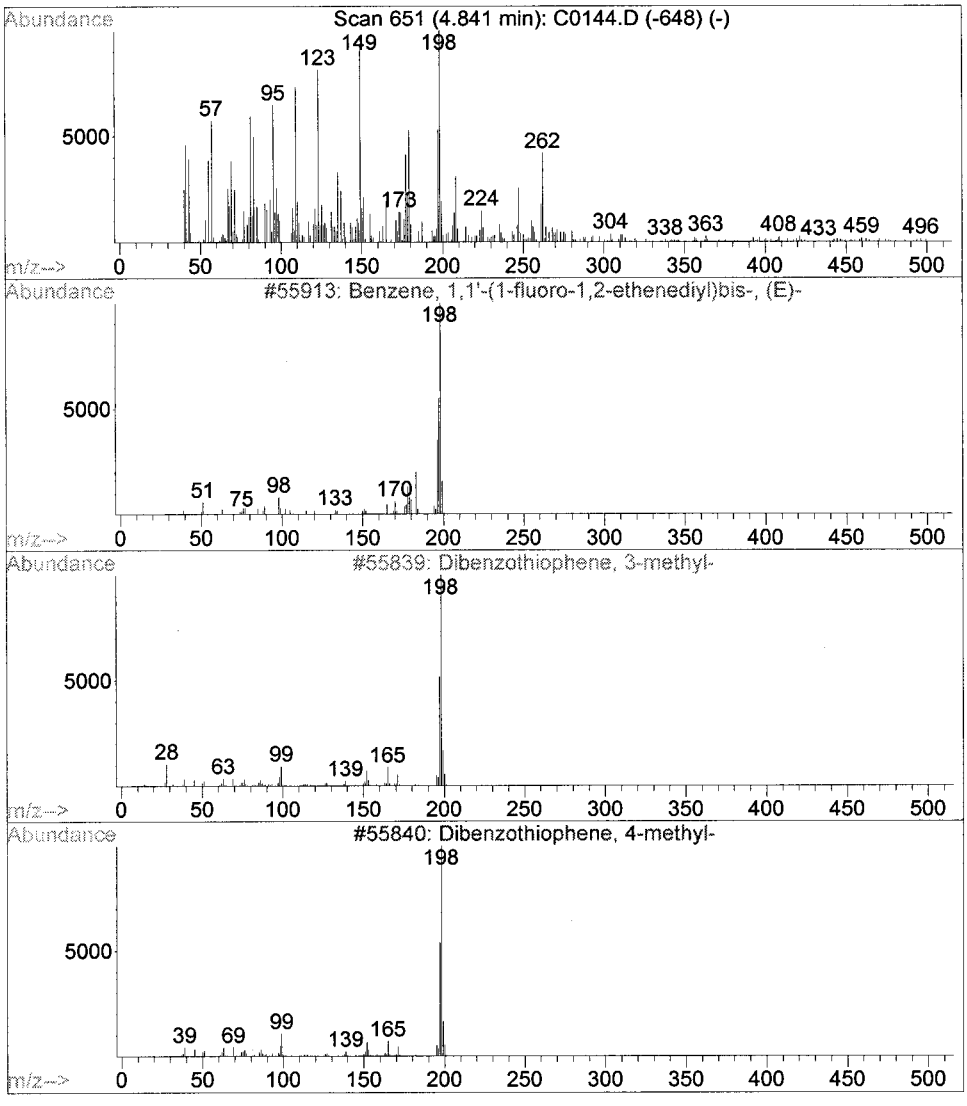
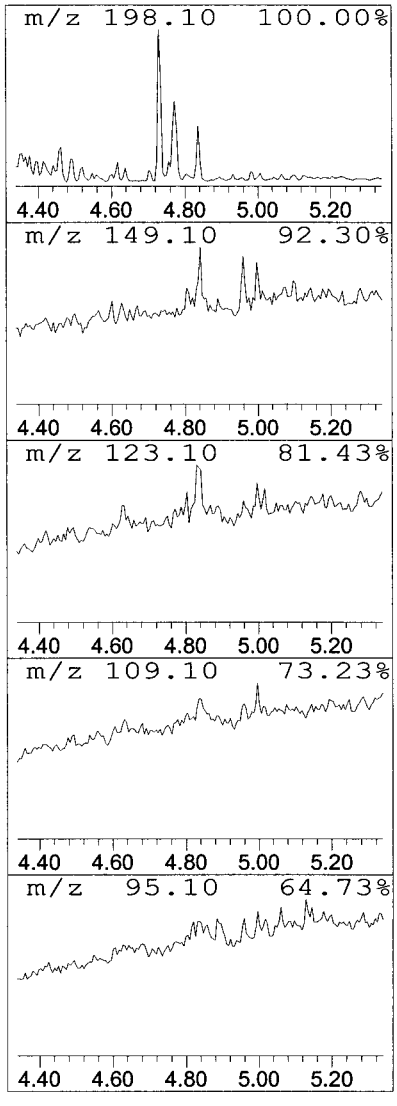
Peak Number 10 Unknown SV Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.84	7.00 UG	362005	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,1'-(1-fluoro-1,2-ethe...	198	C14H11F	000671-19-2	38
2	Dibenzothiophene, 3-methyl-	198	C13H10S	016587-52-3	38
3	Dibenzothiophene, 4-methyl-	198	C13H10S	007372-88-5	38
4	Benzenamine, 4,4'-methylenebis-	198	C13H14N2	000101-77-9	30
5	Benzene, 1-fluoro-3-(2-phenyleth...	198	C14H11F	003041-81-4	30





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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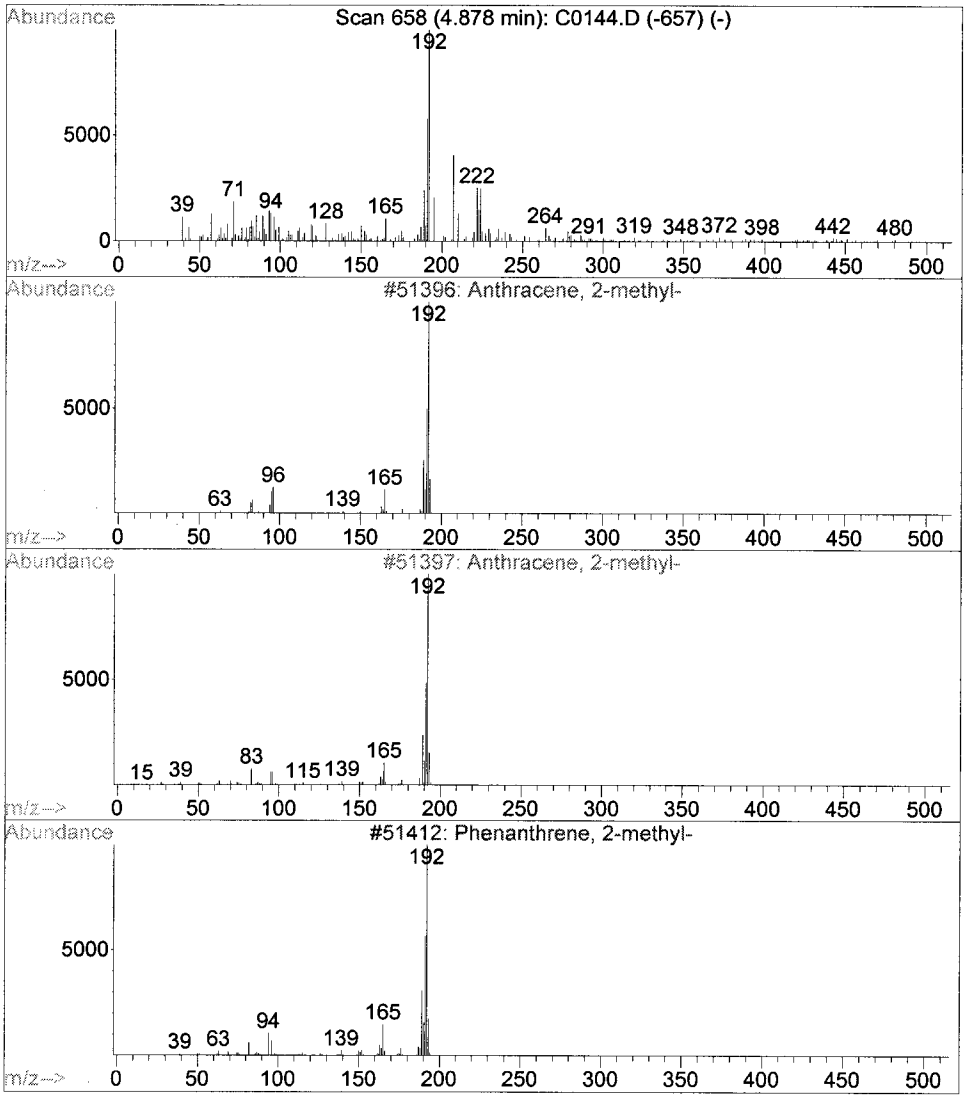
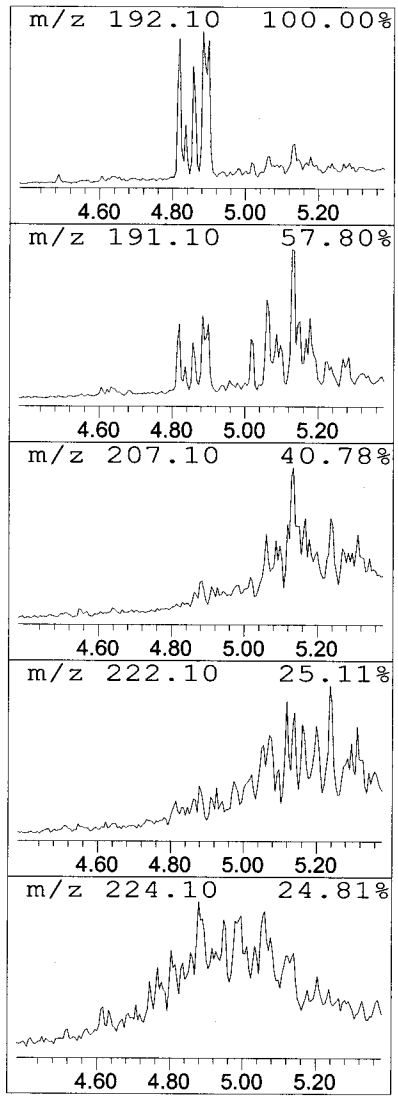
Peak Number 11 Unknown PAH Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.88	15.35 UG	794588	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anthracene, 2-methyl-	192	C15H12	000613-12-7	91
2	Anthracene, 2-methyl-	192	C15H12	000613-12-7	90
3	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	90
4	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	78
5	Anthracene, 1-methyl-	192	C15H12	000610-48-0	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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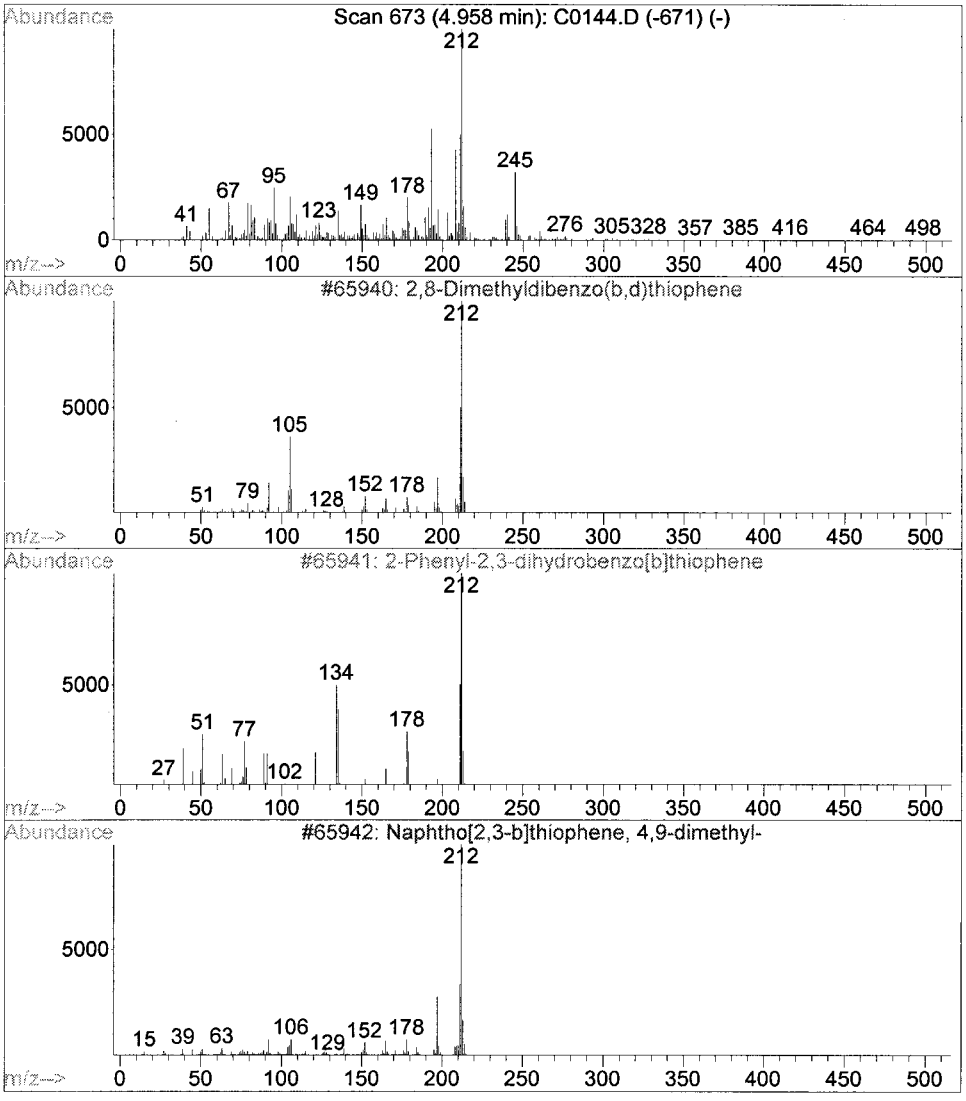
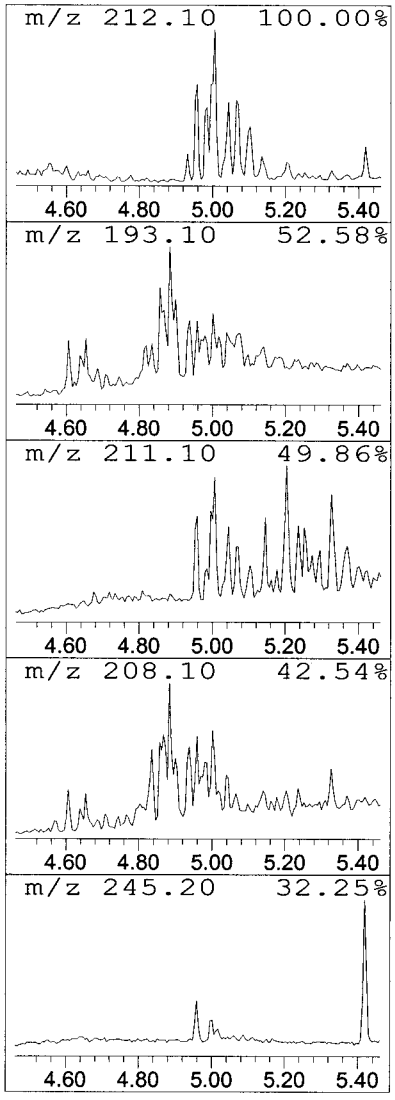
Peak Number 12 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.96	11.88 UG	614819	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,8-Dimethyldibenzo(b,d)thiophene	212	C14H12S	001207-15-4	84
2	2-Phenyl-2,3-dihydrobenzo[b]thio...	212	C14H12S	054493-00-4	43
3	Naphtho[2,3-b]thiophene, 4,9-dim...	212	C14H12S	016587-34-1	38
4	Thioxanthone	212	C13H8OS	000492-22-8	35
5	Acridin-9-amine, 1,2,3,4-tetrahy...	212	C14H16N2	005778-78-9	30





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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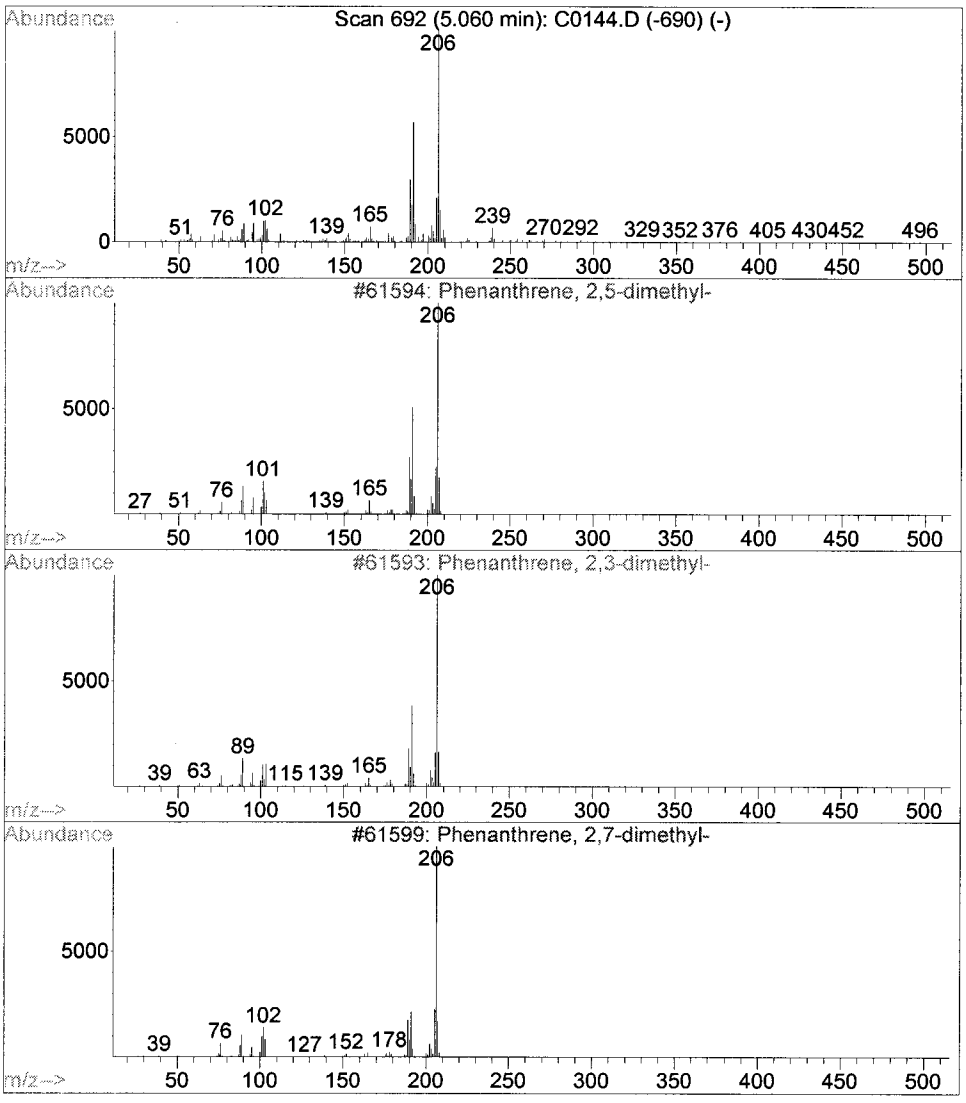
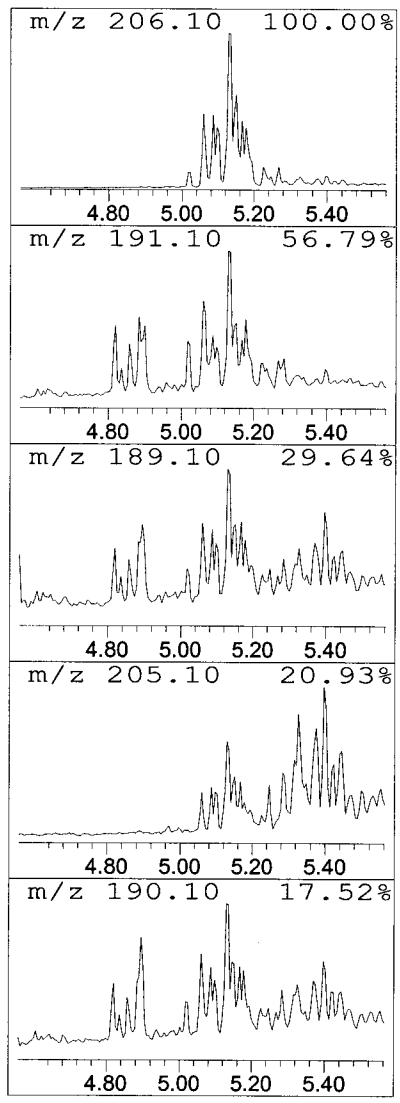
Peak Number 13 Unknown PAH Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.06	9.97 UG	516040	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	96
2	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	94
3	Phenanthrene, 2,7-dimethyl-	206	C16H14	001576-69-8	94
4	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	93
5	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0144.D
Acq On : 20 Sep 2013 20:54
Operator : EDM
Sample : AOC-7-3/,E13-09197-005,S,15.26g,25.6,0.5
Misc : 130919-03,09/19/13,09/18/13,2
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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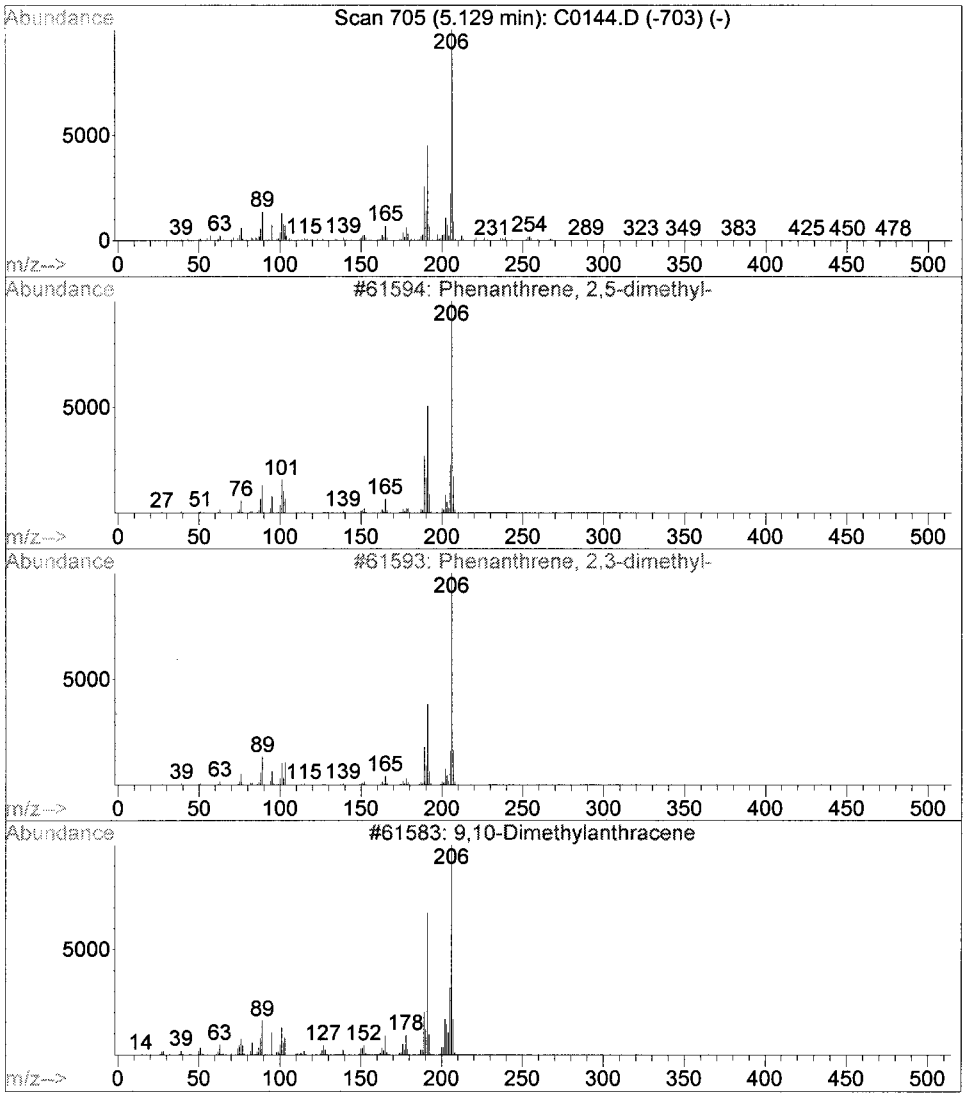
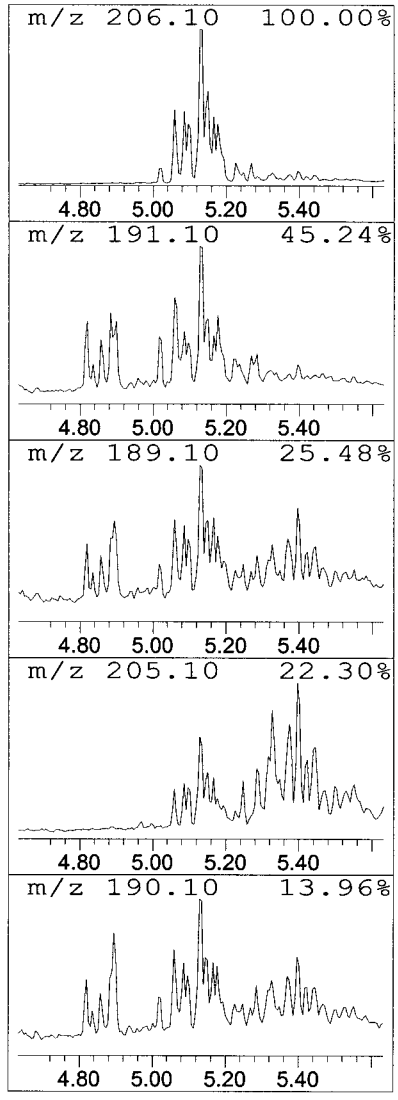
Peak Number 14 Unknown PAH Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.13	17.52 UG	906664	Phenanthrene-d10	4.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	94
2	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	93
3	9,10-Dimethylanthracene	206	C16H14	000781-43-1	93
4	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	93
5	9,10-Dimethylanthracene	206	C16H14	000781-43-1	87





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : C0240.D
Acq On : 24 Sep 2013 22:31
Operator : EDM
Sample : AOC-8/12.5,E13-09197-007,S,15.03g,17.0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 25 09:14:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	178341	40.00	UG	0.00
23) Naphthalene-d8	3.01	136	708732	40.00	UG	-0.01
43) Acenaphthene-d10	3.80	164	354705	40.00	UG	-0.06
66) Phenanthrene-d10	4.53	188	536556	40.00	UG	-0.12
82) Chrysene-d12	6.27	240	506223	40.00	UG	-0.17
92) Perylene-d12	7.67	264	260907	40.00	UG	-0.11

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.70	82	177038	30.86	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 61.72%			
47) 2-Fluorobiphenyl	3.47	172	413692	34.50	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 69.00%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.38	244	477189m	35.56	UG	-0.22
Spiked Amount 50.000	Range 15 - 122		Recovery = 71.12%			

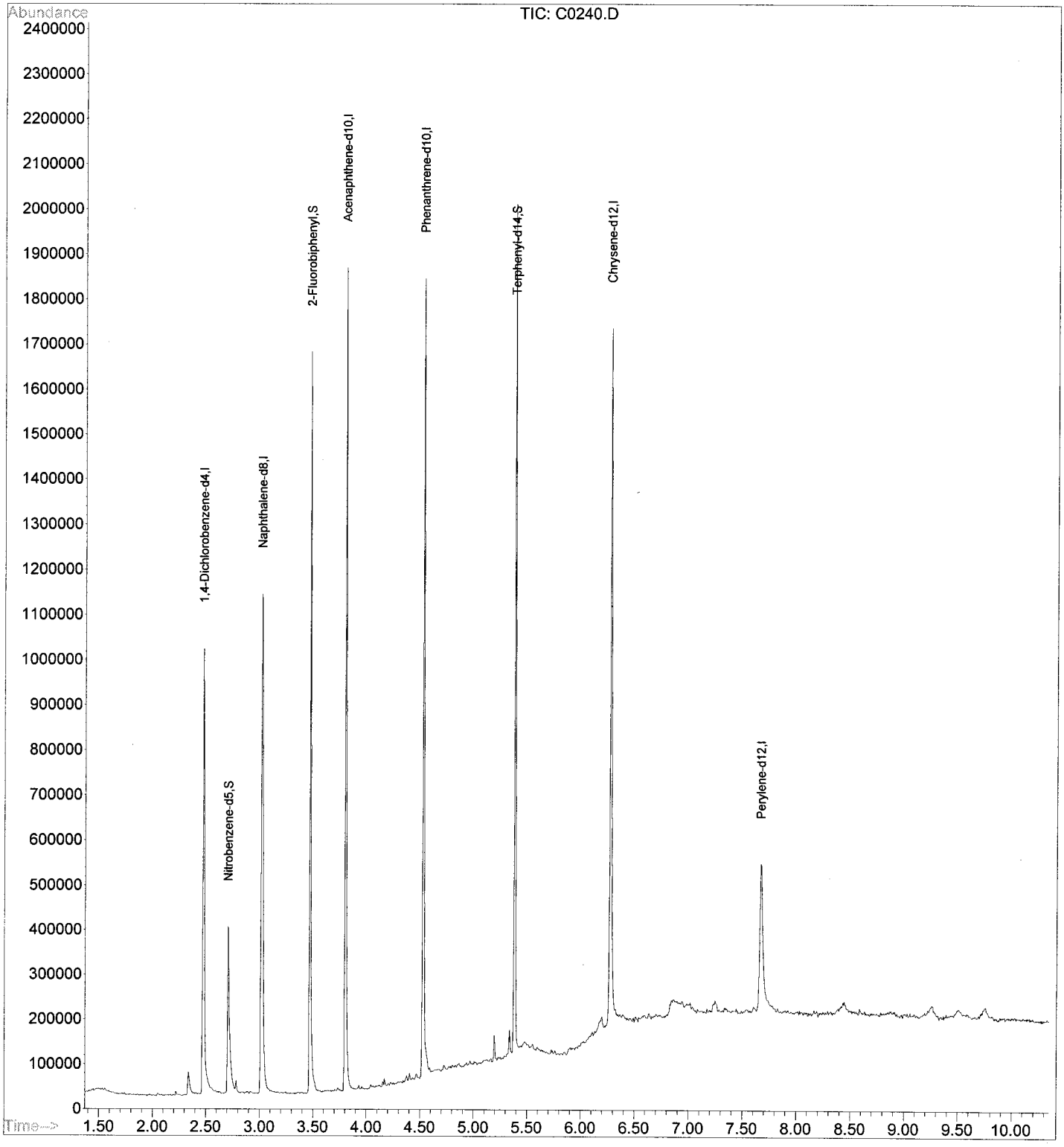
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : C0240.D
Acq On : 24 Sep 2013 22:31
Operator : EDM
Sample : AOC-8/12.5,E13-09197-007,S,15.03g,17.0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 25 09:14:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : C0240.D
Acq On : 24 Sep 2013 22:31
Operator : EDM
Sample : AOC-8/12.5,E13-09197-007,S,15.03g,17.0,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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CS2213.M Wed Sep 25 09:15:11 2013 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0145.D
Acq On : 20 Sep 2013 21:10
Operator : EDM
Sample : AOC-12-2,E13-09197-009,S,15.10g,14.0,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 23 09:52:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

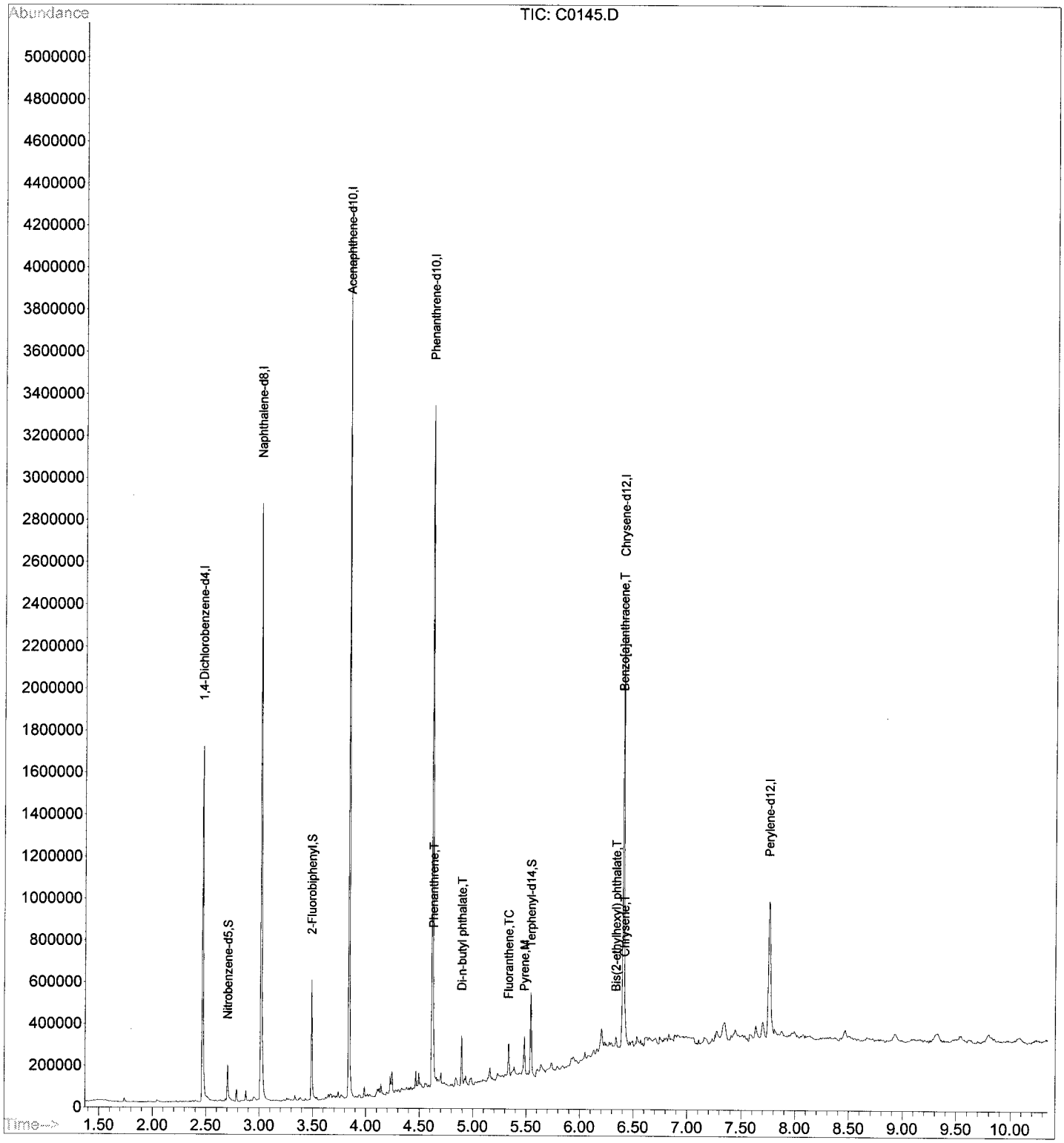
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	237880	40.00	UG		0.00
23) Naphthalene-d8	3.01	136	1074381	40.00	UG		-0.01
43) Acenaphthene-d10	3.84	164	615996	40.00	UG		-0.02
66) Phenanthrene-d10	4.62	188	947470	40.00	UG		-0.03
82) Chrysene-d12	6.41	240	591821	40.00	UG		-0.03
92) Perylene-d12	7.76	264	356376	40.00	UG		-0.02
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#				
6) Phenol-d5	0.00	99	0d	0.00	UG		
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#				
24) Nitrobenzene-d5	2.70	82	55493m	6.38	UG		0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 12.76%#				
47) 2-Fluorobiphenyl	3.49	172	183437m	8.81	UG		-0.02
Spiked Amount 50.000	Range 33 - 91		Recovery = 17.62%#				
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG		
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#				
84) Terphenyl-d14	5.54	244	124818	7.96	UG		-0.06
Spiked Amount 50.000	Range 15 - 122		Recovery = 15.92%				
Target Compounds							Qvalue
75) Phenanthrene	4.63	178	37486	1.46	UG		95
78) Di-n-butyl phthalate	4.89	149	80330	2.82	UG	#	98
79) Fluoranthene	5.34	202	55117	2.03	UG	#	81
83) Pyrene	5.48	202	55610	2.79	UG	#	70
88) Benzo[a]anthracene	6.40	228	30972	1.94	UG		96
89) Chrysene	6.42	228	34536	2.25	UG		93
90) Bis(2-ethylhexyl) phthalat	6.34	149	11080	1.03	UG		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0145.D
Acq On : 20 Sep 2013 21:10
Operator : EDM
Sample : AOC-12-2,E13-09197-009,S,15.10g,14.0,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 23 09:52:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0145.D
Acq On : 20 Sep 2013 21:10
Operator : EDM
Sample : AOC-12-2,E13-09197-009,S,15.10g,14.0,1
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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CS2213.M Mon Sep 23 09:52:42 2013 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0141.D
Acq On : 20 Sep 2013 20:05
Operator : EDM
Sample : AOC-6/18,E13-09197-010,S,15.15g,17.7,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 23 10:17:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	257134	40.00	UG	0.00
23) Naphthalene-d8	3.02	136	1216782	40.00	UG	0.00
43) Acenaphthene-d10	3.85	164	685886	40.00	UG	0.00
66) Phenanthrene-d10	4.64	188	866666	40.00	UG	-0.01
82) Chrysene-d12	6.43	240	477789	40.00	UG	0.00
92) Perylene-d12	7.80	264	281655	40.00	UG	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.70	82	252071	25.60	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 51.20%			
47) 2-Fluorobiphenyl	3.49	172	629567	27.15	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 54.30%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.58	244	552729	43.64	UG	-0.02
Spiked Amount 50.000	Range 15 - 122		Recovery = 87.28%			

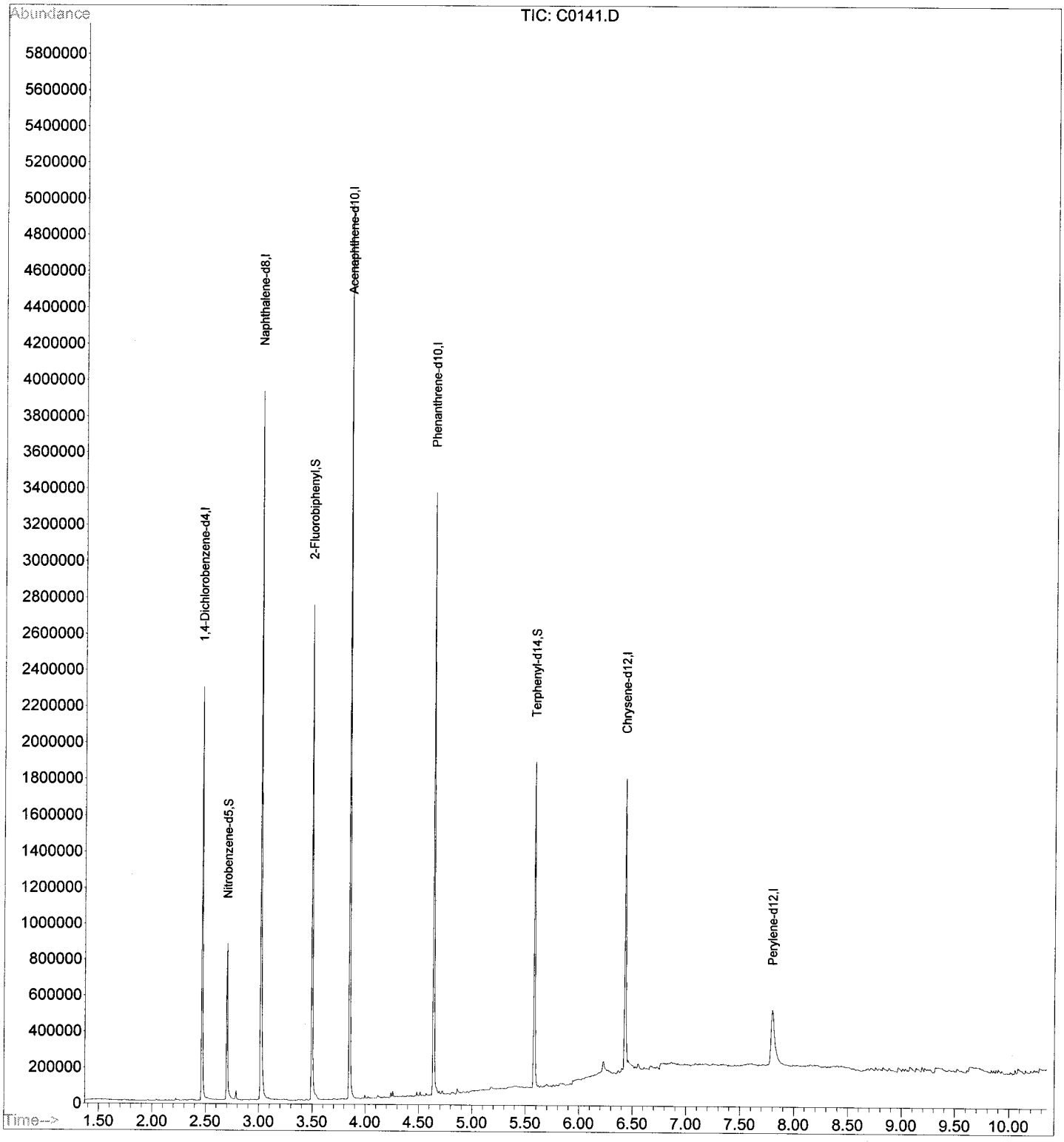
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0141.D
Acq On : 20 Sep 2013 20:05
Operator : EDM
Sample : AOC-6/18,E13-09197-010,S,15.15g,17.7,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 23 10:17:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0141.D
Acq On : 20 Sep 2013 20:05
Operator : EDM
Sample : AOC-6/18,E13-09197-010,S,15.15g,17.7,0.5
Misc : 130919-03,09/19/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2213.M Mon Sep 23 10:17:27 2013 RPT1

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS130919-03
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0132.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.028
Pyridine	ND		0.033	0.033
Benzaldehyde	ND		0.033	0.020
Phenol	ND		0.033	0.020
Aniline	ND		0.033	0.026
Bis(2-chloroethyl) ether	ND		0.033	0.023
2-Chlorophenol	ND		0.033	0.020
1,3-Dichlorobenzene	ND		0.033	0.020
1,4-Dichlorobenzene	ND		0.033	0.020
Benzyl alcohol	ND		0.033	0.021
1,2-Dichlorobenzene	ND		0.033	0.020
2-Methylphenol	ND		0.033	0.027
Bis(2-chloroisopropyl) ether	ND		0.033	0.020
4-Methylphenol **	ND		0.033	0.020
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.020
3-Methylphenol	ND		0.033	0.020
Hexachloroethane	ND		0.033	0.020
Nitrobenzene	ND		0.033	0.033
Isophorone	ND		0.033	0.022
2-Nitrophenol	ND		0.033	0.025
2,4-Dimethylphenol	ND		0.033	0.026
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Benzoic acid	ND		0.033	0.020
2,4-Dimethylaniline	ND		0.033	0.025
2,4-Dichlorophenol	ND		0.033	0.031
1,2,4-Trichlorobenzene	ND		0.033	0.020
Naphthalene	ND		0.033	0.020
4-Chloroaniline	ND		0.033	0.031
Hexachlorobutadiene	ND		0.033	0.020
Caprolactam	ND		0.033	0.020
4-Chloro-3-methylphenol	ND		0.033	0.031
2-Methylnaphthalene	ND		0.033	0.028
Hexachlorocyclopentadiene	ND		0.033	0.022
2,4,6-Trichlorophenol	ND		0.033	0.020
2,4,5-Trichlorophenol	ND		0.033	0.020
1,1'-Biphenyl	ND		0.033	0.020
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.020

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS130919-03
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0132.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.020
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.028
Acenaphthene	ND		0.033	0.027
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.025
2,4-Dinitrotoluene	ND		0.033	0.022
Dibenzofuran	ND		0.033	0.020
Diethyl phthalate	ND		0.033	0.025
Fluorene	ND		0.033	0.020
4-Chlorophenyl phenyl ether	ND		0.033	0.020
4-Nitroaniline	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.020
2,3,4,6-Tetrachlorophenol	ND		0.033	0.031
4,6-Dinitro-2-methylphenol	ND		0.033	0.026
N-Nitrosodiphenylamine	ND		0.033	0.020
1,2-Diphenylhydrazine	ND		0.033	0.026
4-Bromophenyl phenyl ether	ND		0.033	0.020
Hexachlorobenzene	ND		0.033	0.027
Atrazine	ND		0.033	0.023
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.022
Anthracene	ND		0.033	0.033
Carbazole	ND		0.033	0.020
Di-n-butyl phthalate	ND		0.033	0.030
Fluoranthene	ND		0.033	0.020
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.025
3,3'-Dimethylbenzidine	ND		0.033	0.020
Butyl benzyl phthalate	ND		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	ND		0.033	0.032
Chrysene	ND		0.033	0.023
Bis(2-ethylhexyl) phthalate	ND		0.033	0.020
Di-n-octyl phthalate	ND		0.033	0.030
Benzo[b]fluoranthene	ND		0.033	0.020
Benzo[k]fluoranthene	ND		0.033	0.031
Benzo[a]pyrene	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	ND		0.033	0.022
Dibenz[a,h]anthracene	ND		0.033	0.024
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (81): 0

** - represents the total of 3+4-Methylphenol
D --- Dilution Performed
B --- Compound detected in Blank
J --- Value Less than RL & great than MDL
C --- Common laboratory contamination
E --- Exceeds upper level of Calibration curve

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130919-03
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: C0132.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0132.D
Acq On : 20 Sep 2013 17:39
Operator : EDM
Sample : .,BLKS130919-03,S,15.00g,0,0.5
Misc : 130919-03,09/19/13,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 20 18:00:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.46	152	199214	40.00	UG	-0.01
23) Naphthalene-d8	3.01	136	856700	40.00	UG	-0.02
43) Acenaphthene-d10	3.82	164	540546	40.00	UG	-0.04
66) Phenanthrene-d10	4.58	188	868530	40.00	UG	-0.07
82) Chrysene-d12	6.34	240	579706	40.00	UG	-0.10
92) Perylene-d12	7.69	264	266047	40.00	UG	-0.09
System Monitoring Compounds						
4) 2-Fluorophenol	1.95	112	363006	52.35	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 52.35%			
6) Phenol-d5	2.29	99	461618	56.33	UG	-0.01
Spiked Amount 100.000	Range 25 - 108		Recovery = 56.33%			
24) Nitrobenzene-d5	2.70	82	275792	39.78	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 79.56%			
47) 2-Fluorobiphenyl	3.48	172	664146	36.34	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 72.68%			
70) 2,4,6-Tribromophenol	4.22	330	136048	48.99	UG	-0.06
Spiked Amount 100.000	Range 37 - 115		Recovery = 48.99%			
84) Terphenyl-d14	5.46	244	721545	46.96	UG	-0.14
Spiked Amount 50.000	Range 15 - 122		Recovery = 93.92%			

Target Compounds	Qvalue

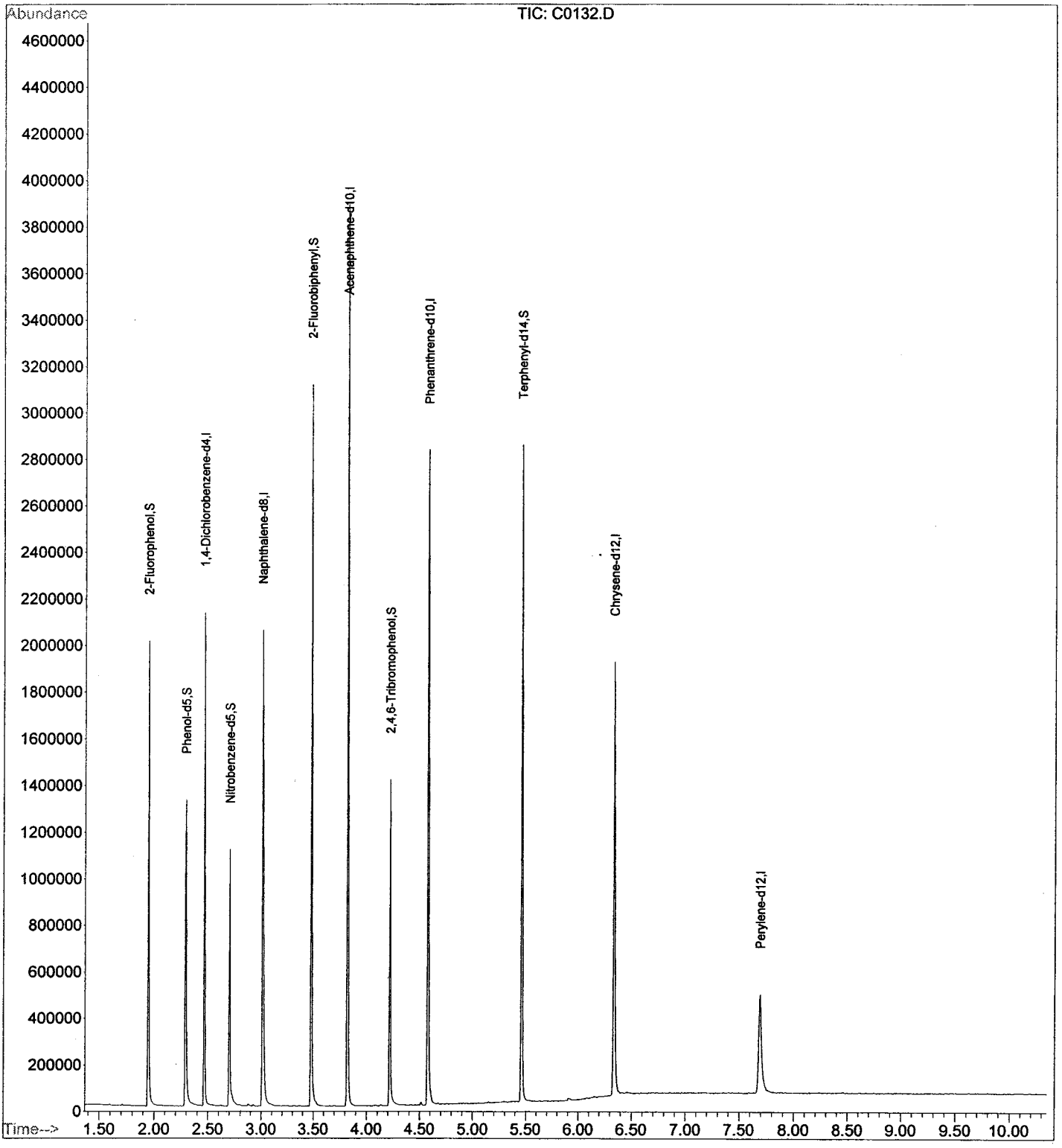
(#) = qualifier out of range (m) = manual integration (+) = signals summed

E13-09197 0257

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0132.D
Acq On : 20 Sep 2013 17:39
Operator : EDM
Sample : .,BLKS130919-03,S,15.00g,0,0.5
Misc : 130919-03,09/19/13,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 20 18:00:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



E13-09197 0258

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-20-13\
Data File : C0132.D
Acq On : 20 Sep 2013 17:39
Operator : EDM
Sample : .,BLKS130919-03,S,15.00g,0,0.5
Misc : 130919-03,09/19/13,NA,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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CS2213.M Fri Sep 20 18:00:42 2013 RPT1

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS130923-11	SOIL	66		80		81		94	
C1/S1	09290-001	SOIL	52		56		65		79	
C2/S2	09290-002	SOIL	53		56		65		72	
C-1_WAREHO	09196-001	SOLID	38		52		50		64	
C-2_LOAD_D	09196-002	SOLID	23	M	37		30		84	
C-3_BLD_2	09196-003	SOLID	30		49		36		69	
C-4_IMP._M	09196-004	SOLID	30		49		35		59	
AOC-7-2/11	09197-004	SOIL	34		47		39		61	
AOC-7-3/9.	09197-005	SOIL	30		49		33		49	
AOC-12-2/3	09197-009	SOIL	32		33		37		40	
VTS_D1	08883-001	SOIL	42		43		51		52	
PCB	09197-009MS	SOIL	42		39		50		48	
PCB	09197-009MSD	SOIL	43		41		52		49	
PCB	LCSS130923-11	SOIL	71		70		87		74	
C-5_SPHINX	09196-005	SOLID	33		45		41		71	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PCB LCS ACCURACY RECOVERY

Matrix spike Lab sample ID: LCSS130923-11

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	378.9	76	40 - 140
Aroclor-1260	500.0	0.0	375.5	75	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB MS/MSD ACCURACY RECOVERY

Matrix spike Lab sample ID: 09197-009

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC	#	QC LIMITS REC.
Aroclor-1016	500.0	0.0	244.2	49		40 - 140
Aroclor-1260	500.0	1011.0	549.8	-92	*	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	#	MSD % REC	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	242.8		49	0		50	40 - 140
Aroclor-1260	1011.0	727.8	*	-57	47		50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __2___ out of __4__ outside limits

PCB METHOD BLANK SUMMARY

Lab File ID:	R4368.D	Instrument ID:	GC-R
Date Extracted:	09/23/2013	Matrix:	SOIL
Date Analyzed:	09/24/2013	Time Analyzed:	09:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
C1/S1	09290-001	09/24/2013	10:02
C2/S2	09290-002	09/24/2013	10:20
C-1_WAREHO	09196-001	09/24/2013	10:37
C-2_LOAD_D	09196-002	09/24/2013	10:58
C-3_BLD_2	09196-003	09/24/2013	11:16
C-4_IMP._M	09196-004	09/24/2013	11:33
AOC-7-2/11	09197-004	09/24/2013	13:00
AOC-7-3/9.	09197-005	09/24/2013	13:18
AOC-12-2/3	09197-009	09/24/2013	13:35
VTS_D1	08883-001	09/24/2013	13:53
PCB	09197-009MS	09/24/2013	14:10
PCB	09197-009MSD	09/24/2013	14:28
PCB	LCSS130923-11	09/24/2013	14:45
C-5_SPHINX	09196-005	09/24/2013	15:03

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013

Instrument ID: GC-R

GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.21	3.21	3.21	3.21	3.20	3.21	3.14	3.28
Aroclor-1016 {2}	4.04	4.04	4.04	4.04	4.03	4.04	3.97	4.11
Aroclor-1016 {3}	4.59	4.59	4.59	4.59	4.59	4.59	4.52	4.66
Aroclor-1016 {4}	5.10	5.10	5.10	5.10	5.10	5.10	5.03	5.17
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.12				2.05	2.19
Aroclor-1221 {2}			3.01				2.94	3.08
Aroclor-1221 {3}			3.13				3.06	3.20
Aroclor-1221 {4}			3.21				3.14	3.28
Aroclor-1221 {5}			3.80				3.73	3.87
Aroclor-1232			3.21				3.14	3.28
Aroclor-1232 {2}			4.04				3.97	4.11
Aroclor-1232 {3}			4.70				4.63	4.77
Aroclor-1232 {4}			5.30				5.23	5.37
Aroclor-1232 {5}			5.49				5.42	5.56
Aroclor-1242			4.04				3.97	4.11
Aroclor-1242 {2}			4.98				4.91	5.05
Aroclor-1242 {3}			5.30				5.23	5.37
Aroclor-1242 {4}			6.00				5.93	6.07
Aroclor-1242 {5}			6.27				6.20	6.34
Aroclor-1248			4.44				4.36	4.52
Aroclor-1248 {2}			4.98				4.90	5.06
Aroclor-1248 {3}			5.30				5.22	5.38
Aroclor-1248 {4}			6.00				5.92	6.08
Aroclor-1248 {5}			6.27				6.19	6.35
Aroclor-1254			6.39				6.31	6.47
Aroclor-1254 {2}			6.83				6.75	6.91
Aroclor-1254 {3}			7.00				6.91	7.09
Aroclor-1254 {4}			7.45				7.36	7.54
Aroclor-1254 {5}			8.29				8.20	8.38
Aroclor-1260	8.29	8.29	8.29	8.29	8.29	8.29	7.39	9.19
Aroclor-1260 {2}	8.97	8.96	8.96	8.96	8.96	8.96	8.06	9.86
Aroclor-1260 {3}	9.45	9.45	9.44	9.44	9.44	9.45	8.55	10.35
Aroclor-1260 {4}	9.94	9.93	9.93	9.93	9.93	9.93	9.03	10.83
Aroclor-1260 {5}	11.00	11.00	11.00	10.99	10.99	11.00	10.10	11.90

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	243865	216790	199305	183366	184539	205573	12.32
Aroclor-1016 {2}	329663	293312	273907	254375	251534	280558	11.48
Aroclor-1016 {3}	421622	378312	356112	329359	325022	362086	10.95
Aroclor-1016 {4}	196004	176563	161796	145945	139733	164008	13.98
Aroclor-1016 {5}	322251	290331	282382	257409	252936	281062	9.96
Aroclor-1221			98455				
Aroclor-1221 {2}			147422				
Aroclor-1221 {3}			104493				
Aroclor-1221 {4}			357450				
Aroclor-1221 {5}			79152				
Aroclor-1232			248609				
Aroclor-1232 {2}			144312				
Aroclor-1232 {3}			125680				
Aroclor-1232 {4}			141484				
Aroclor-1232 {5}			176247				
Aroclor-1242			232340				
Aroclor-1242 {2}			149217				
Aroclor-1242 {3}			212227				
Aroclor-1242 {4}			308432				
Aroclor-1242 {5}			255832				
Aroclor-1248			550496				
Aroclor-1248 {2}			319120				
Aroclor-1248 {3}			418121				
Aroclor-1248 {4}			650924				
Aroclor-1248 {5}			480676				
Aroclor-1254			627382				
Aroclor-1254 {2}			399643				
Aroclor-1254 {3}			752699				
Aroclor-1254 {4}			788362				
Aroclor-1254 {5}			705322				
Aroclor-1260	757128	754434	788799	691182	715219	741352	5.17
Aroclor-1260 {2}	377531	353479	367477	314922	322854	347253	7.89
Aroclor-1260 {3}	833253	861623	929397	797453	840707	852487	5.73
Aroclor-1260 {4}	442035	422694	469045	403585	434405	434353	5.57
Aroclor-1260 {5}	232694	194352	209736	173881	171745	196482	13.01
					Average %RSD		9.61

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013

Instrument ID: GC-R

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.38	3.38	3.38	3.38	3.39	3.38	3.31	3.45
Aroclor-1016 {2}	3.94	3.94	3.94	3.94	3.96	3.94	3.87	4.01
Aroclor-1016 {3}	4.66	4.66	4.66	4.66	4.67	4.66	4.59	4.73
Aroclor-1016 {4}	4.86	4.86	4.86	4.86	4.87	4.86	4.79	4.93
Aroclor-1016 {5}	5.03	5.03	5.03	5.03	5.04	5.03	4.96	5.10
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.08				3.01	3.15
Aroclor-1221 {3}			3.29				3.22	3.36
Aroclor-1221 {4}			3.38				3.31	3.45
Aroclor-1221 {5}			4.66				4.59	4.73
Aroclor-1232			3.38				3.31	3.45
Aroclor-1232 {2}			4.31				4.24	4.38
Aroclor-1232 {3}			4.86				4.79	4.93
Aroclor-1232 {4}			5.03				4.96	5.10
Aroclor-1232 {5}			5.61				5.54	5.68
Aroclor-1242			4.31				4.24	4.38
Aroclor-1242 {2}			5.03				4.96	5.10
Aroclor-1242 {3}			5.61				5.54	5.68
Aroclor-1242 {4}			5.76				5.69	5.83
Aroclor-1242 {5}			6.30				6.23	6.37
Aroclor-1248			4.66				4.58	4.74
Aroclor-1248 {2}			5.22				5.14	5.30
Aroclor-1248 {3}			5.61				5.53	5.69
Aroclor-1248 {4}			5.76				5.68	5.84
Aroclor-1248 {5}			6.11				6.03	6.19
Aroclor-1254			6.59				6.51	6.67
Aroclor-1254 {2}			7.17				7.09	7.25
Aroclor-1254 {3}			7.60				7.51	7.69
Aroclor-1254 {4}			7.78				7.69	7.87
Aroclor-1254 {5}			8.59				8.50	8.68
Aroclor-1260	7.35	7.35	7.35	7.35	7.36	7.35	6.45	8.25
Aroclor-1260 {2}	7.60	7.60	7.60	7.60	7.61	7.60	6.70	8.50
Aroclor-1260 {3}	9.18	9.18	9.18	9.18	9.19	9.18	8.28	10.08
Aroclor-1260 {4}	9.69	9.69	9.69	9.69	9.70	9.69	8.79	10.59
Aroclor-1260 {5}	10.28	10.28	10.28	10.27	10.28	10.28	9.38	11.18

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	362241	319133	272025	248097	250722	290444	16.94
Aroclor-1016 {2}	743962	638498	551705	509099	507402	590133	17.13
Aroclor-1016 {3}	1634305	1339093	1240491	1157160	1153188	1304848	15.26
Aroclor-1016 {4}	640757	532369	529369	479376	469296	530233	12.83
Aroclor-1016 {5}	511215	424107	401382	365779	361833	412863	14.71
Aroclor-1221			133932				
Aroclor-1221 {2}			198787				
Aroclor-1221 {3}			133461				
Aroclor-1221 {4}			484806				
Aroclor-1221 {5}			92989				
Aroclor-1232			337701				
Aroclor-1232 {2}			127755				
Aroclor-1232 {3}			282764				
Aroclor-1232 {4}			212621				
Aroclor-1232 {5}			294142				
Aroclor-1242			199335				
Aroclor-1242 {2}			339120				
Aroclor-1242 {3}			443826				
Aroclor-1242 {4}			366761				
Aroclor-1242 {5}			720540				
Aroclor-1248			766481				
Aroclor-1248 {2}			1140084				
Aroclor-1248 {3}			814777				
Aroclor-1248 {4}			687633				
Aroclor-1248 {5}			406423				
Aroclor-1254			915839				
Aroclor-1254 {2}			721245				
Aroclor-1254 {3}			474223				
Aroclor-1254 {4}			703201				
Aroclor-1254 {5}			1013959				
Aroclor-1260	585399	517611	452177	396373	395981	469508	17.43
Aroclor-1260 {2}	883662	775223	680288	591735	587886	703758	17.97
Aroclor-1260 {3}	674621	625967	589609	507374	529398	585394	11.73
Aroclor-1260 {4}	1367534	1326755	1291089	1100209	1160368	1249191	9.12
Aroclor-1260 {5}	929561	946699	919373	778085	827578	880259	8.35
					Average %RSD		14.15

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.66				8.54	8.78
Aroclor-1262 {2}			9.45				9.33	9.57
Aroclor-1262 {3}			10.08				9.96	10.20
Aroclor-1262 {4}			10.16				10.04	10.28
Aroclor-1262 {5}			11.00				10.88	11.12
Aroclor-1268			10.08				9.96	10.20
Aroclor-1268 {2}			10.16				10.04	10.28
Aroclor-1268 {3}			10.63				10.51	10.75
Aroclor-1268 {4}			10.76				10.64	10.88
Aroclor-1268 {5}			11.60				11.48	11.72

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.18				9.06	9.30
Aroclor-1262 {2}			9.69				9.57	9.81
Aroclor-1262 {3}			10.18				10.06	10.30
Aroclor-1262 {4}			10.27				10.15	10.39
Aroclor-1262 {5}			10.87				10.75	10.99
Aroclor-1268			10.18				10.06	10.30
Aroclor-1268 {2}			10.26				10.14	10.38
Aroclor-1268 {3}			10.51				10.39	10.63
Aroclor-1268 {4}			10.65				10.53	10.77
Aroclor-1268 {5}			11.73				11.61	11.85

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R

GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			326215				
Aroclor-1262 {2}			1281764				
Aroclor-1262 {3}			491930				
Aroclor-1262 {4}			563512				
Aroclor-1262 {5}			432239				
Aroclor-1268			1292652				
Aroclor-1268 {2}			1452313				
Aroclor-1268 {3}			1123481				
Aroclor-1268 {4}			297485				
Aroclor-1268 {5}			3490031				

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			817810				
Aroclor-1262 {2}			1844146				
Aroclor-1262 {3}			599368				
Aroclor-1262 {4}			1277066				
Aroclor-1262 {5}			225009				
Aroclor-1268			1847615				
Aroclor-1268 {2}			1965341				
Aroclor-1268 {3}			1551936				
Aroclor-1268 {4}			432171				
Aroclor-1268 {5}			4623946				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-R

Data File: R4367.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	191007	7.09
Aroclor-1016 {2}	4.04	3.97	4.11	280558	248485	11.43
Aroclor-1016 {3}	4.60	4.52	4.66	362086	325577	10.08
Aroclor-1016 {4}	5.11	5.03	5.17	164008	166397	1.46
Aroclor-1016 {5}	5.50	5.42	5.56	281062	256064	8.89
Aroclor-1260	8.30	7.39	9.19	741352	752432	1.49
Aroclor-1260 {2}	8.98	8.06	9.86	347253	347397	0.04
Aroclor-1260 {3}	9.46	8.55	10.35	852487	889502	4.34
Aroclor-1260 {4}	9.94	9.03	10.83	434353	447498	3.03
Aroclor-1260 {5}	11.00	10.10	11.90	196482	189357	3.63

Data File: R4367.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.39	3.31	3.45	290444	321926	10.84
Aroclor-1016 {2}	3.95	3.87	4.01	590133	622612	5.50
Aroclor-1016 {3}	4.68	4.59	4.73	1304848	1386740	6.28
Aroclor-1016 {4}	4.88	4.79	4.93	530233	590186	11.31
Aroclor-1016 {5}	5.04	4.96	5.10	412863	449206	8.80
Aroclor-1260	7.36	6.45	8.25	469508	486548	3.63
Aroclor-1260 {2}	7.61	6.70	8.50	703758	779140	10.71
Aroclor-1260 {3}	9.19	8.28	10.08	585394	675199	15.34
Aroclor-1260 {4}	9.70	8.79	10.59	1249191	1479184	18.41
Aroclor-1260 {5}	10.28	9.38	11.18	880259	1047174	18.96

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-R

Data File: R4384.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	189511	7.81
Aroclor-1016 {2}	4.04	3.97	4.11	280558	252511	10.00
Aroclor-1016 {3}	4.59	4.52	4.66	362086	329692	8.95
Aroclor-1016 {4}	5.10	5.03	5.17	164008	154438	5.84
Aroclor-1016 {5}	5.50	5.42	5.56	281062	258521	8.02
Aroclor-1260	8.30	7.39	9.19	741352	711637	4.01
Aroclor-1260 {2}	8.97	8.06	9.86	347253	326062	6.10
Aroclor-1260 {3}	9.45	8.55	10.35	852487	823289	3.43
Aroclor-1260 {4}	9.94	9.03	10.83	434353	419304	3.46
Aroclor-1260 {5}	11.00	10.10	11.90	196482	215258	9.56

Data File: R4384.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.39	3.31	3.45	290444	325519	12.08
Aroclor-1016 {2}	3.95	3.87	4.01	590133	645596	9.40
Aroclor-1016 {3}	4.67	4.59	4.73	1304848	1442551	10.55
Aroclor-1016 {4}	4.87	4.79	4.93	530233	609175	14.89
Aroclor-1016 {5}	5.03	4.96	5.10	412863	462335	11.98
Aroclor-1260	7.35	6.45	8.25	469508	506599	7.90
Aroclor-1260 {2}	7.60	6.70	8.50	703758	742963	5.57
Aroclor-1260 {3}	9.18	8.28	10.08	585394	623034	6.43
Aroclor-1260 {4}	9.69	8.79	10.59	1249191	1359070	8.80
Aroclor-1260 {5}	10.28	9.38	11.18	880259	977931	11.10

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.75 **DCB 1** 12.09 **TCMX 2** 2.58 **DCB 2** 11.95

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS130923-11	09/24/2013	09:45	2.75		12.09		2.58		11.95	
C1/S1	09290-001	09/24/2013	10:02	2.75		12.09		2.58		11.95	
C2/S2	09290-002	09/24/2013	10:20	2.75		12.09		2.58		11.95	
C-1_WAREHO	09196-001	09/24/2013	10:37	2.75		12.09		2.58		11.95	
C-2_LOAD_D	09196-002	09/24/2013	10:58	2.75		12.10		2.59		11.94	
C-3_BLD_2	09196-003	09/24/2013	11:16	2.75		12.10		2.58		11.95	
C-4_IMP._M	09196-004	09/24/2013	11:33	2.75		12.12		2.58		11.97	
AOC-7-2/11	09197-004	09/24/2013	13:00	2.75		12.09		2.58		11.95	
AOC-7-3/9.	09197-005	09/24/2013	13:18	2.75		12.09		2.58		11.95	
AOC-12-2/3	09197-009	09/24/2013	13:35	2.75		12.09		2.58		11.95	
VTS_D1	08883-001	09/24/2013	13:53	2.75		12.09		2.58		11.95	
PCB	09197-009MS	09/24/2013	14:10	2.75		12.09		2.58		11.95	
PCB	09197-009MSD	09/24/2013	14:28	2.75		12.09		2.58		11.95	
PCB	LCSS130923-11	09/24/2013	14:45	2.75		12.09		2.58		11.95	
C-5_SPHINX	09196-005	09/24/2013	15:03	2.75		12.10		2.58		11.95	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4376.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:00
Operator : JS
Sample : AOC-7-2/11,09197-004,S,30.89g,17.8,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 17:03:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	188.1E6	307.7E6	13.405	15.346
Spiked Amount 200.000			Recovery =		6.70%	7.67%
2) S DCB	12.09	11.95	63831637	113.5E6	18.504m	24.305m#
Spiked Amount 200.000			Recovery =		9.25%	12.15%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

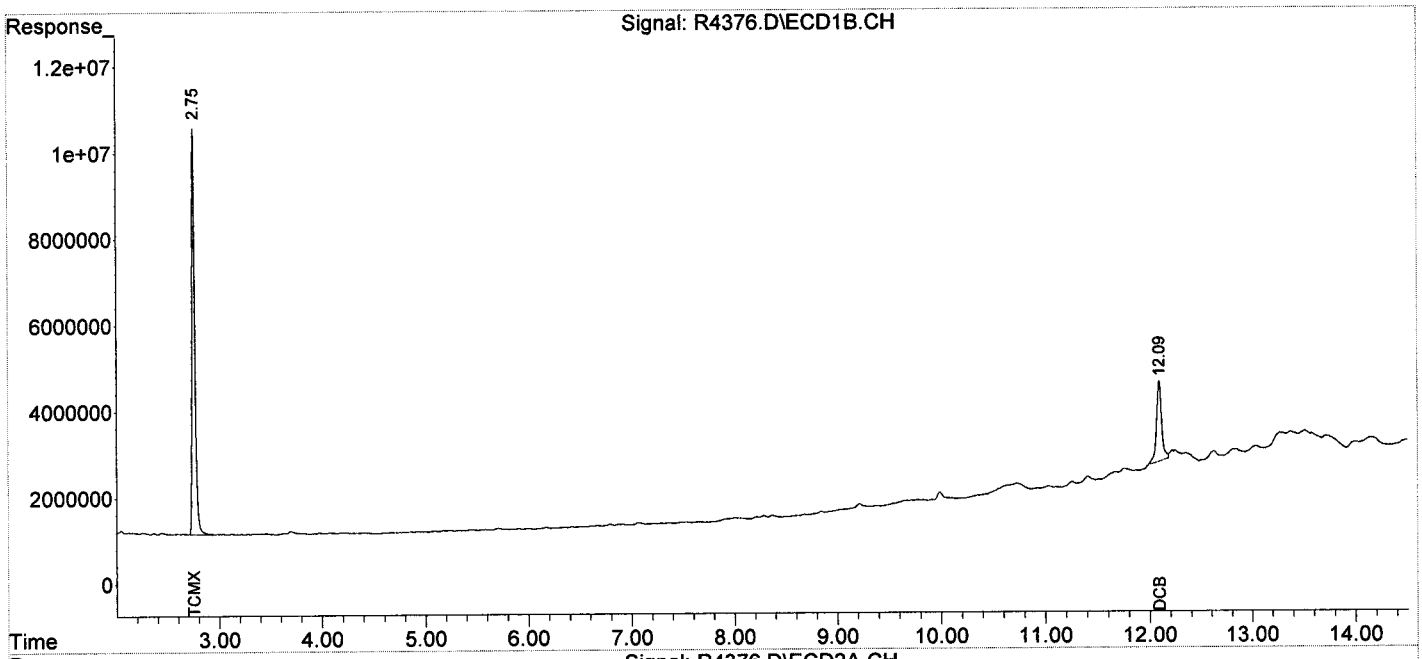
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

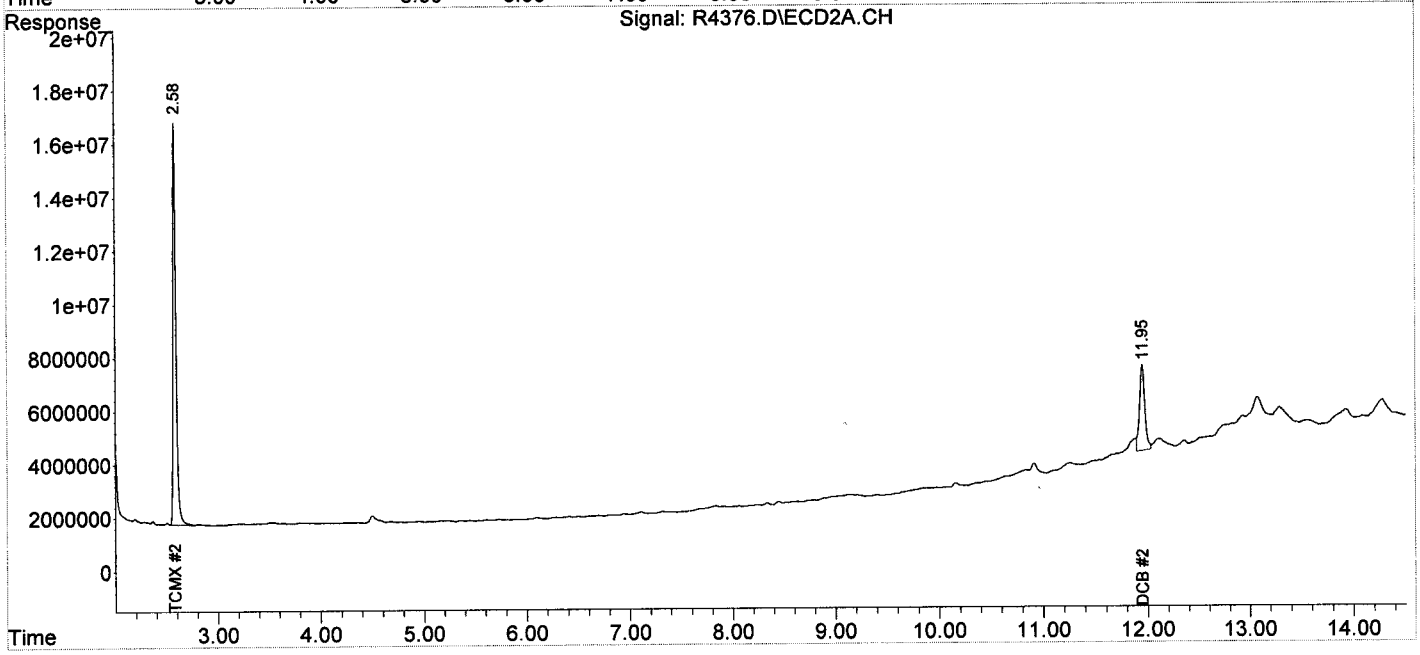
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4376.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:00
Operator : JS
Sample : AOC-7-2/11,09197-004,S,30.89g,17.8,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 17:03:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4377.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:18
Operator : JS
Sample : AOC-7-3/9.,09197-005,S,30.35g,25.6,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 10:59:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	168.6E6	261.7E6	12.016m	13.055
Spiked Amount 200.000			Recovery	=	6.01%	6.53%
2) S DCB	12.09	11.95	66640796	90907947	19.318m	19.467m
Spiked Amount 200.000			Recovery	=	9.66%	9.73%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

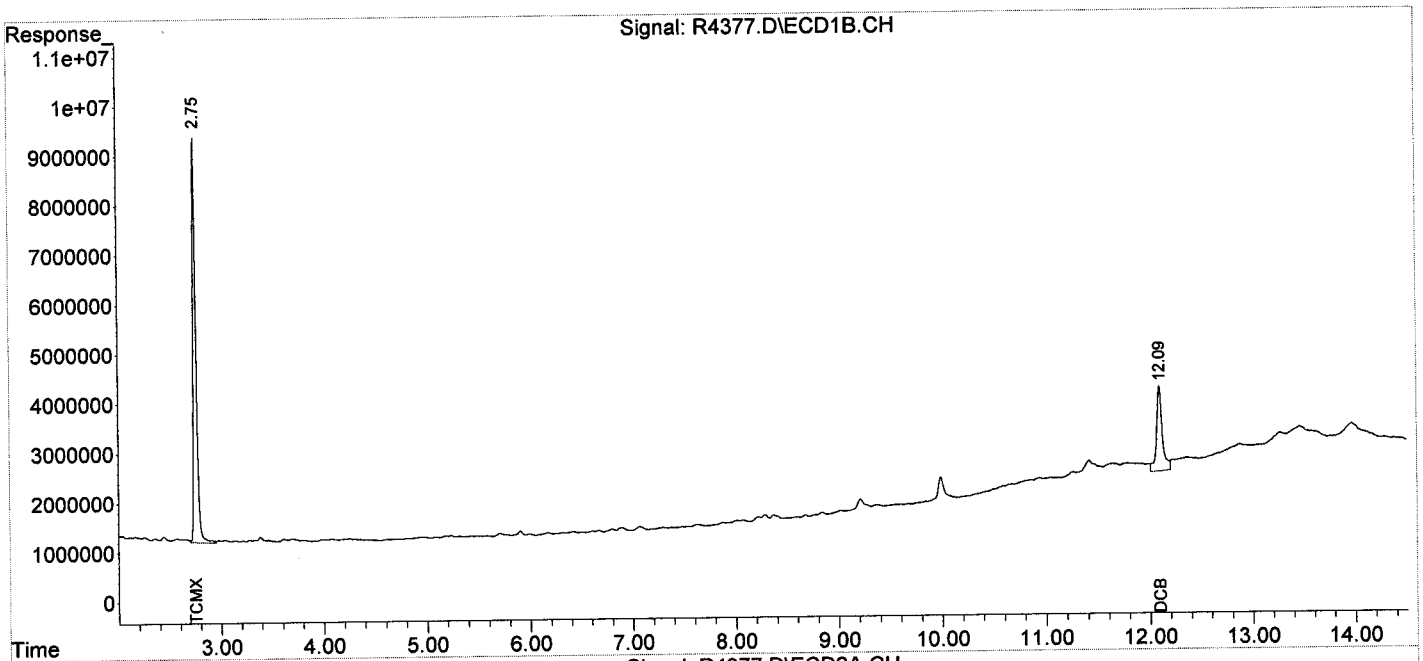
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

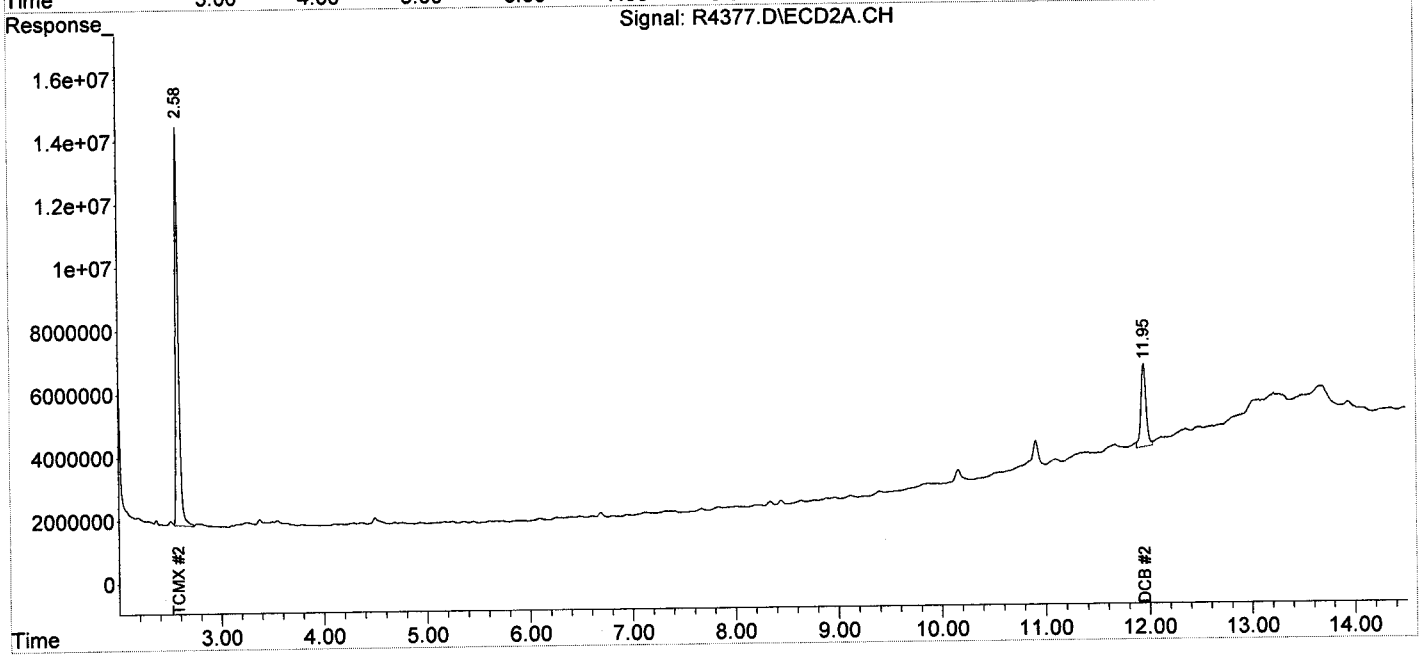
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4377.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:18
Operator : JS
Sample : AOC-7-3/9.,09197-005,S,30.35g,25.6,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 10:59:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4378.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:35
Operator : JS
Sample : AOC-12-2/3,09197-009,S,30.21g,14.0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 17:00:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	890.4E6	1467.4E6	63.460	73.194
Spiked Amount 200.000			Recovery	=	31.73%	36.60%
2) S DCB	12.09	11.95	230.3E6	371.7E6	66.767m	79.602
Spiked Amount 200.000			Recovery	=	33.38%	39.80%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.30	7.35	675.0E6	505.6E6	910.478	1076.866
34) L8 Aroclor-1260 {2}	8.97	7.60	354.9E6	673.7E6	1021.947	957.333
35) L8 Aroclor-1260 {3}	9.45	9.18	864.8E6	662.0E6	1014.421	1130.817
36) L8 Aroclor-1260 {4}	9.93	9.69	426.1E6	1430.4E6	980.893	1145.100
37) L8 Aroclor-1260 {5}	11.00	10.27	221.5E6	1003.4E6	1127.274	1139.925
Sum Aroclor-1260			2542.2E6	4275.2E6	5055.012	5450.041
Average Aroclor-1260					1011.002	1090.008
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

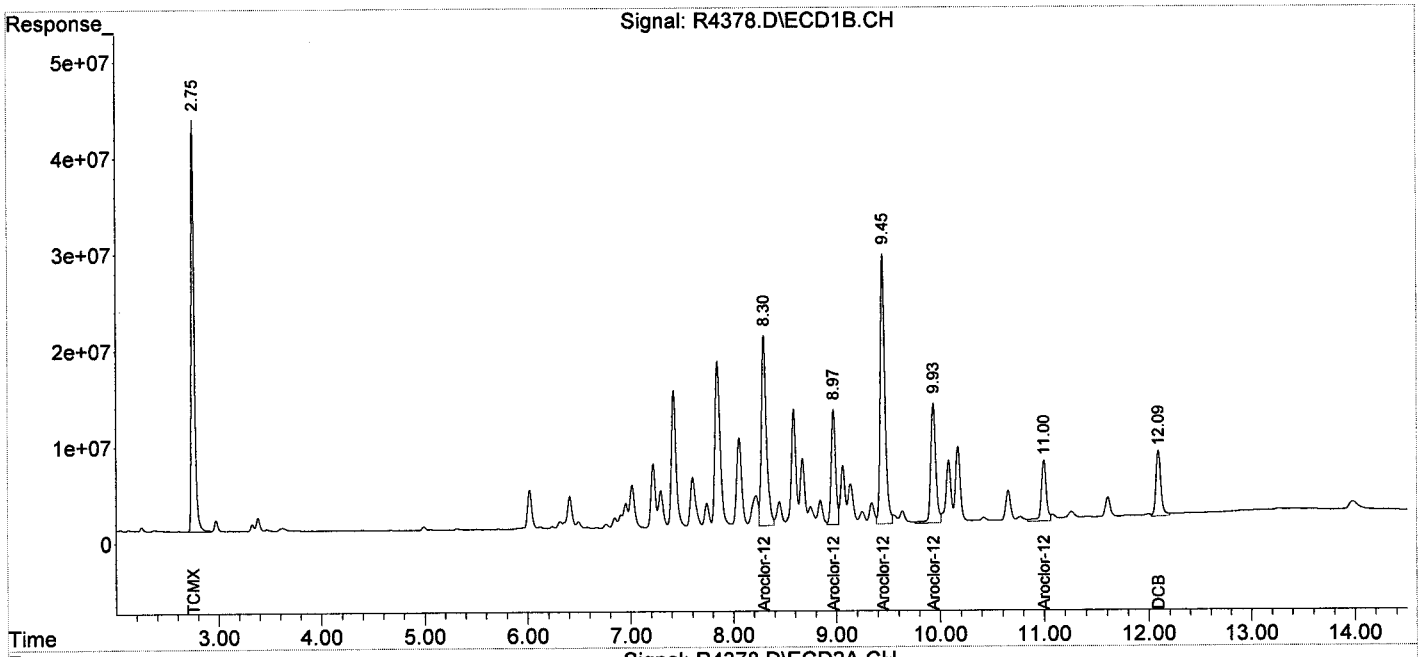
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

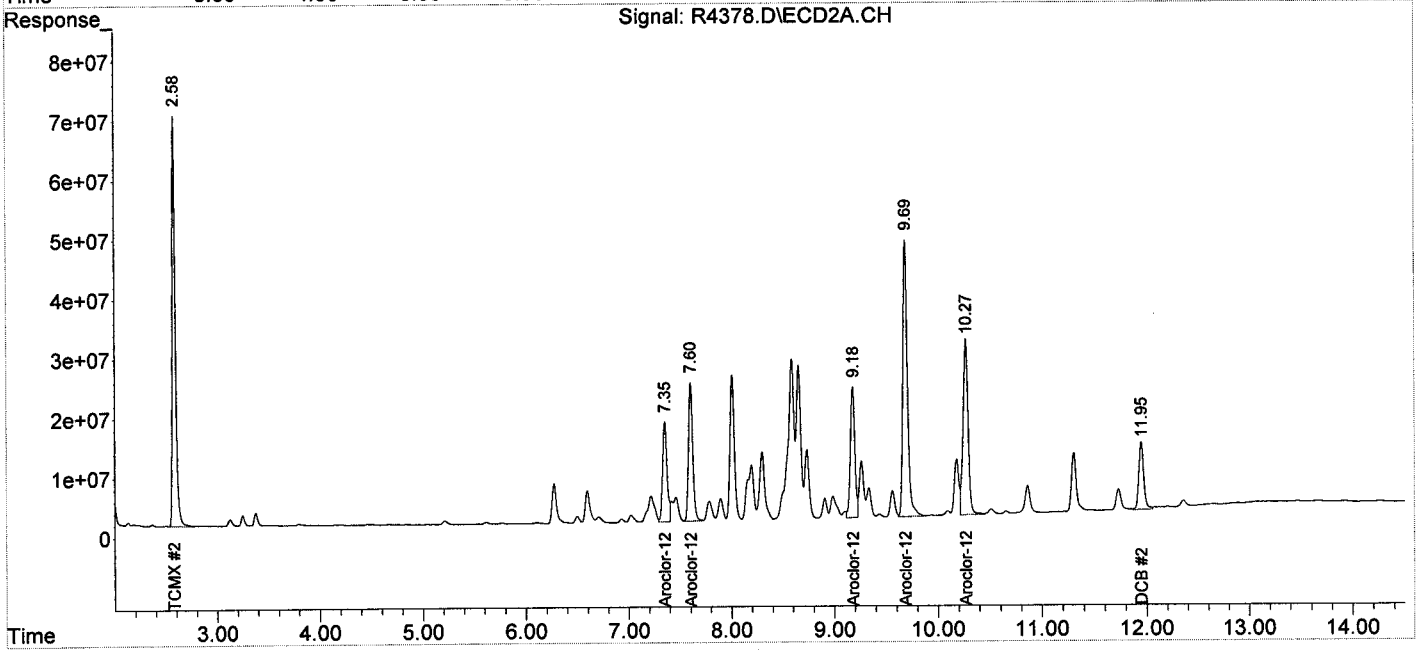
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4378.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 13:35
Operator : JS
Sample : AOC-12-2/3,09197-009,S,30.21g,14.0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 17:00:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS130923-11
Client ID: PCB
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4368.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00167	0.000668
Aroclor-1221	ND		0.00167	0.000668
Aroclor-1232	ND		0.00167	0.000668
Aroclor-1242	ND		0.00167	0.000668
Aroclor-1248	ND		0.00167	0.000668
Aroclor-1254	ND		0.00167	0.000668
Aroclor-1260	ND		0.00167	0.000668
Aroclor-1262	ND		0.00167	0.000668
Aroclor-1268	ND		0.00167	0.000668
PCBs	ND		0.00167	0.000668

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4368.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 9:45
Operator : JS
Sample : PCB,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 16:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	1862.0E6	3241.5E6	132.702	161.686
Spiked Amount 200.000			Recovery	=	66.35%	80.84%
2) S DCB	12.09	11.95	550.3E6	874.4E6	159.535	187.246
Spiked Amount 200.000			Recovery	=	79.77%	93.62%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

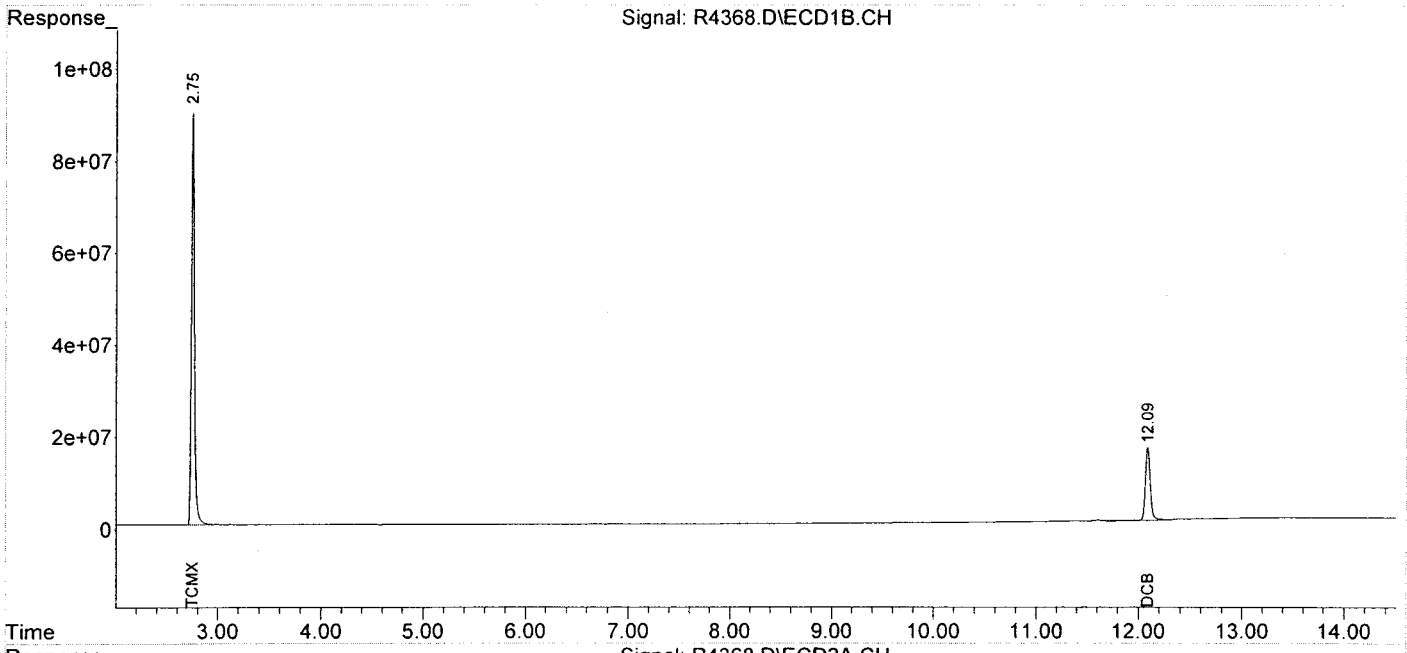
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

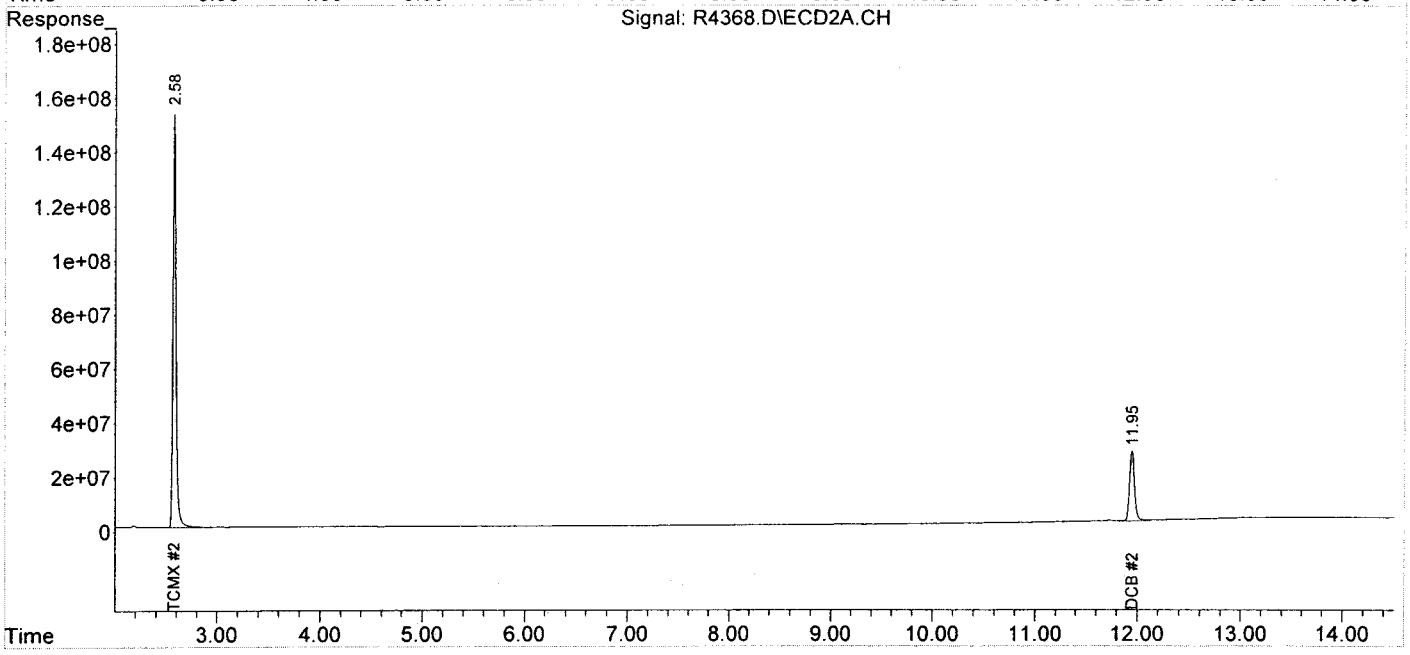
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4368.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 9:45
Operator : JS
Sample : PCB,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 16:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SAMPLE DATA

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS130923-11	SOIL	66		79		69		79	
C1/S1	09290-001	SOIL	51		64		51		80	
C2/S2	09290-002	SOIL	51		68		51		81	
PI-6N1/0-0	09339-001	SOIL	56		81		54		83	
PI-6E1/0-0	09339-003	SOIL	52		77		52		76	
PI-6W1/0-0	09339-005	SOIL	50		68		49		85	
PI-6S1/0-0	09339-007	SOIL	57		79		58		88	
PI-6D1/1-1	09339-009	SOIL	48		65		47		84	
C-1_WAREHO	09196-001	SOLID	36		82		43		101	
C-2_LOAD_D	09196-002	SOLID	33		90		30		90	
C-3_BLD_2	09196-003	SOLID	32		93		39		143	
C-4_IMP._M	09196-004	SOLID	38		140		40		1090	M
C-5_SPHINX	09196-005	SOLID	41		146		35		215	M
PI-6S1/0-0	09339-007DL	SOIL	55		73		56		70	
C-1_WAREHO	09196-001DL	SOLID	43		59		44		93	
C-2_LOAD_D	09196-002DL	SOLID	33		84		32		139	
C-3_BLD_2	09196-003DL	SOLID	36		126		40		123	
C-5_SPHINX	09196-005DL	SOLID	42		83		37		441	M
AOC-7-2/11	09197-004	SOIL	40		1637	M	32		137	
AOC-7-3/9.	09197-005	SOIL	39		80		35		89	
AOC-8/12.5	09197-007	SOIL	41		51		33		63	
AOC-12-2/3	09197-009	SOIL	36		42		30		57	
AOC-6/18.5	09197-010	SOIL	51		59		47		77	
AOC-12-3/1	09198-003	SOIL	57		86		54		73	
VTS_D1	08883-001	SOIL	53		54		54		72	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	09198-003MSD	SOIL	59		72		60		83	
Pest	LCSS130923-11	SOIL	80		89		79		89	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130923-11
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4650.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	80.16	80
beta-BHC	100.0	0.00	77.60	78
gamma-BHC (Lindane)	100.0	0.00	82.00	82
delta-BHC	100.0	0.00	81.99	82
Heptachlor	100.0	0.00	78.79	79
Aldrin	100.0	0.00	79.55	80
Heptachlor epoxide	100.0	0.00	78.33	78
Endosulfan I	100.0	0.00	80.67	81
4,4'-DDE	100.0	0.00	81.17	81
Dieldrin	100.0	0.00	70.04	70
Endrin	100.0	0.00	85.01	85
Endosulfan II	100.0	0.00	75.64	76
4,4'-DDD	100.0	0.00	81.84	82
Endrin aldehyde	100.0	0.00	69.95	70
Endosulfan sulfate	100.0	0.00	71.43	71
4,4'-DDT	100.0	0.00	62.18	62
Endrin ketone	100.0	0.00	73.23	73
Methoxychlor	100.0	0.00	67.49	67
alpha-Chlordane	100.0	0.00	78.90	79
gamma-Chlordane	100.0	0.00	79.30	79

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	30-140	30-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09198-003
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
MS Data file: V4648.D
MSD Data file: V4649.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.22g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	55.80	56		59.54	60	6
beta-BHC	100.00	0.00	58.89	59		64.37	64	9
gamma-BHC (Lindane)	100.00	0.00	57.65	58		61.27	61	6
delta-BHC	100.00	0.00	60.76	61		64.68	65	6
Heptachlor	100.00	0.00	52.07	52		55.80	56	7
Aldrin	100.00	0.00	55.85	56		59.74	60	7
Heptachlor epoxide	100.00	0.00	56.72	57		61.08	61	7
Endosulfan I	100.00	0.00	57.33	57		63.12	63	10
4,4'-DDE	100.00	0.00	59.22	59		63.82	64	7
Dieldrin	100.00	0.00	50.76	51		54.90	55	8
Endrin	100.00	0.00	61.99	62		66.19	66	7
Endosulfan II	100.00	0.00	56.29	56		59.33	59	5
4,4'-DDD	100.00	0.00	65.44	65		69.94	70	7
Endrin aldehyde	100.00	0.00	41.47	41		40.91	41	1
Endosulfan sulfate	100.00	0.00	55.48	55		57.19	57	3
4,4'-DDT	100.00	0.00	33.66	34		37.73	38	11
Endrin ketone	100.00	0.00	53.12	53		58.86	59	10
Methoxychlor	100.00	0.00	45.79	46		46.31	46	1
alpha-Chlordane	100.00	0.00	56.38	56		61.73	62	9
gamma-Chlordane	100.00	0.00	56.60	57		61.05	61	8

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V4621.D

Instrument ID: GC-V

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 11:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
C1/S1	09290-001	09/24/2013	12:01
C2/S2	09290-002	09/24/2013	12:13
PI-6N1/0-0	09339-001	09/24/2013	12:25
PI-6E1/0-0	09339-003	09/24/2013	12:37
PI-6W1/0-0	09339-005	09/24/2013	12:49
PI-6S1/0-0	09339-007	09/24/2013	13:01
PI-6D1/1-1	09339-009	09/24/2013	13:13
C-1_WAREHO	09196-001	09/24/2013	13:25
C-2_LOAD_D	09196-002	09/24/2013	13:37
C-3_BLD_2	09196-003	09/24/2013	13:49
C-4_IMP._M	09196-004	09/24/2013	14:01
C-5_SPHINX	09196-005	09/24/2013	14:13
PI-6S1/0-0	09339-007DL	09/24/2013	15:04
C-1_WAREHO	09196-001DL	09/24/2013	15:16
C-2_LOAD_D	09196-002DL	09/24/2013	15:28
C-3_BLD_2	09196-003DL	09/24/2013	15:41
C-5_SPHINX	09196-005DL	09/24/2013	15:53
AOC-7-2/11	09197-004	09/24/2013	16:05
AOC-7-3/9.	09197-005	09/24/2013	16:29
AOC-8/12.5	09197-007	09/24/2013	16:41
AOC-12-2/3	09197-009	09/24/2013	16:53
AOC-6/18.5	09197-010	09/24/2013	17:05
AOC-12-3/1	09198-003	09/24/2013	17:17
VTS_D1	08883-001	09/24/2013	17:29
Pest	09198-003MS	09/24/2013	

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V4621.D

Instrument ID: GC-V

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 11:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Pest	09198-003MSD	09/24/2013	17:53
Pest	LCSS130923-11	09/24/2013	18:05

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4592.D V4591.D V4590.D V4589.D V4588.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.37	2.37	2.37	2.37	2.37	2.37	2.31	2.43
beta-BHC	2.69	2.69	2.69	2.69	2.69	2.69	2.63	2.75
gamma-BHC	2.62	2.62	2.62	2.62	2.62	2.62	2.56	2.68
delta-BHC	2.85	2.85	2.85	2.85	2.85	2.85	2.79	2.91
Heptachlor	3.04	3.04	3.04	3.04	3.04	3.04	2.96	3.12
Aldrin	3.33	3.33	3.33	3.33	3.33	3.33	3.25	3.41
Heptachlor epoxide	3.98	3.98	3.98	3.98	3.98	3.98	3.90	4.06
Endosulfan I	4.44	4.44	4.44	4.44	4.44	4.44	4.36	4.52
4,4'-DDE	4.39	4.39	4.38	4.39	4.39	4.39	4.29	4.49
Dieldrin	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Endrin	5.03	5.03	5.02	5.03	5.03	5.03	4.93	5.13
Endosulfan II	5.32	5.32	5.32	5.32	5.32	5.32	5.22	5.42
4,4'-DDD	5.15	5.15	5.15	5.15	5.15	5.15	5.05	5.25
Endrin aldehyde	5.90	5.90	5.90	5.90	5.90	5.90	5.78	6.02
Endosulfan sulfate	6.52	6.52	6.52	6.52	6.52	6.52	6.40	6.64
4,4'-DDT	5.52	5.52	5.52	5.52	5.52	5.52	5.40	5.64
Endrin ketone	6.88	6.88	6.88	6.88	6.88	6.88	6.76	7.00
Methoxychlor	6.24	6.24	6.24	6.24	6.24	6.24	6.12	6.36
alpha-Chlordane	4.28	4.28	4.28	4.28	4.28	4.28	4.20	4.36
gamma-Chlordane	4.12	4.12	4.12	4.12	4.12	4.12	4.04	4.20
Chlordane 500 ppb			2.97				2.89	3.05
Chlordane {2}			3.47				3.39	3.55
Chlordane {3}			4.12				4.04	4.20
Chlordane {4}			4.27				4.19	4.35
Chlordane {5}			5.23				5.15	5.31
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.40				5.32	5.48
Toxaphene {3}			5.87				5.79	5.95
Toxaphene {4}			6.37				6.29	6.45
Toxaphene {5}			6.86				6.78	6.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4592.D V4591.D V4590.D V4589.D V4588.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	347678	346418	345062	395828	363569	359711	5.99
beta-BHC	141529	124410	123822	159328	142260	138270	10.67
gamma-BHC	285044	302071	304263	335651	309704	307347	5.96
delta-BHC	318353	309454	303846	358195	325485	323067	6.60
Heptachlor	297982	313491	304187	354147	322544	318470	6.91
Aldrin	305406	310556	302159	344489	315278	315577	5.36
Heptachlor epoxide	284978	277309	266362	301560	273471	280736	4.79
Endosulfan I	292081	297402	279594	323004	290955	296607	5.43
4,4'-DDE	211496	222455	222263	256010	234778	229400	7.41
Dieldrin	289855	276081	275409	310895	282157	286879	5.10
Endrin	238110	247891	242093	276437	252109	251328	5.98
Endosulfan II	263759	242034	230993	267999	240844	249126	6.40
4,4'-DDD	233637	221480	210325	244172	220459	226015	5.79
Endrin aldehyde	222224	185371	174905	203745	182337	193717	9.88
Endosulfan sulfate	225073	212795	199539	232044	208191	215528	6.05
4,4'-DDT	191416	166692	173290	226749	210029	193635	12.94
Endrin ketone	251375	255896	238821	276464	247214	253954	5.54
Methoxychlor	85157	85324	86222	108672	99532	92981	11.47
alpha-Chlordane	277114	270432	262029	299467	273510	276510	5.06
gamma-Chlordane	280577	279150	271656	310502	284095	285196	5.21
Chlordane 500 ppb			7578				
Chlordane {2}			9120				
Chlordane {3}			27556				
Chlordane {4}			43517				
Chlordane {5}			7002				
Toxaphene 500 ppb			2995				
Toxaphene {2}			4340				
Toxaphene {3}			5723				
Toxaphene {4}			6032				
Toxaphene {5}			5978				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V4592.C V4591.C V4590.C V4589.C V4588.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.86	2.86	2.86	2.86	2.86	2.86	2.80	2.92
beta-BHC	3.30	3.30	3.30	3.30	3.30	3.30	3.24	3.36
gamma-BHC	3.22	3.22	3.22	3.22	3.22	3.22	3.16	3.28
delta-BHC	3.62	3.63	3.63	3.62	3.62	3.62	3.56	3.68
Heptachlor	3.71	3.72	3.72	3.72	3.72	3.72	3.64	3.80
Aldrin	4.10	4.10	4.10	4.10	4.10	4.10	4.02	4.18
Heptachlor epoxide	4.82	4.82	4.82	4.82	4.82	4.82	4.74	4.90
Endosulfan I	5.35	5.35	5.35	5.35	5.35	5.35	5.27	5.43
4,4'-DDE	5.53	5.53	5.53	5.53	5.53	5.53	5.43	5.63
Dieldrin	5.74	5.74	5.74	5.74	5.74	5.74	5.64	5.84
Endrin	6.17	6.17	6.17	6.17	6.17	6.17	6.07	6.27
Endosulfan II	6.49	6.49	6.49	6.49	6.49	6.49	6.39	6.59
4,4'-DDD	6.37	6.37	6.37	6.37	6.37	6.37	6.27	6.47
Endrin aldehyde	6.95	6.95	6.95	6.95	6.95	6.95	6.83	7.07
Endosulfan sulfate	7.26	7.26	7.26	7.26	7.26	7.26	7.14	7.38
4,4'-DDT	6.82	6.82	6.82	6.82	6.82	6.82	6.70	6.94
Endrin ketone	7.77	7.77	7.77	7.77	7.77	7.77	7.65	7.89
Methoxychlor	7.57	7.58	7.58	7.58	7.58	7.58	7.46	7.70
alpha-Chlordane	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
gamma-Chlordane	5.08	5.08	5.08	5.08	5.08	5.08	5.00	5.16
Chlordane 500 ppb			3.55				3.47	3.63
Chlordane {2}			4.28				4.20	4.36
Chlordane {3}			5.08				5.00	5.16
Chlordane {4}			5.21				5.13	5.29
Chlordane {5}			5.28				5.20	5.36
Toxaphene 500 ppb			6.62				6.54	6.70
Toxaphene {2}			6.96				6.88	7.04
Toxaphene {3}			7.21				7.13	7.29
Toxaphene {4}			7.51				7.43	7.59
Toxaphene {5}			7.86				7.78	7.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V4592.C V4591.C V4590.C V4589.C V4588.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	1425053	1377331	1324482	1520622	1382702	1406038	5.22
beta-BHC	533298	527060	471815	551228	496617	516004	6.12
gamma-BHC	1220996	1218448	1166622	1320555	1197782	1224881	4.71
delta-BHC	1287860	1195048	1121925	1286419	1152718	1208794	6.29
Heptachlor	1323562	1207499	1139489	1287823	1151217	1221918	6.68
Aldrin	1250670	1243746	1143886	1267028	1138531	1208772	5.15
Heptachlor epoxide	1046590	1070933	969823	1062743	946328	1019283	5.61
Endosulfan I	910703	899259	900872	988342	877592	915354	4.65
4,4'-DDE	959397	862726	898836	983804	873412	915635	5.84
Dieldrin	966279	944600	955000	1054598	937994	971694	4.90
Endrin	750688	758543	773042	852963	761971	779441	5.37
Endosulfan II	930367	788967	819609	899051	789517	845502	7.73
4,4'-DDD	747355	659041	681146	764449	675379	705474	6.68
Endrin aldehyde	603447	520611	502170	579290	513357	543775	8.23
Endosulfan sulfate	626034	584839	528648	622446	554915	583376	7.25
4,4'-DDT	499884	485099	490735	636830	579475	538404	12.45
Endrin ketone	547612	544727	517789	615325	554334	555958	6.47
Methoxychlor	200571	189994	172990	221527	218942	200805	10.11
alpha-Chlordane	968252	916193	908337	1017602	915078	945093	4.99
gamma-Chlordane	1063034	976008	982687	1096722	982639	1020218	5.47
Chlordane 500 ppb			33798				
Chlordane {2}			38358				
Chlordane {3}			103667				
Chlordane {4}			81930				
Chlordane {5}			87377				
Toxaphene 500 ppb			14633				
Toxaphene {2}			15901				
Toxaphene {3}			12662				
Toxaphene {4}			12244				
Toxaphene {5}			8968				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4615.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	342107	4.89
beta-BHC	2.69	2.63	2.75	138270	145814	5.46
gamma-BHC	2.62	2.56	2.68	307347	293958	4.36
delta-BHC	2.85	2.79	2.91	323067	323865	0.25
Heptachlor	3.04	2.96	3.12	318470	294160	7.63
Aldrin	3.33	3.25	3.41	315577	302908	4.01
Heptachlor epoxide	3.98	3.90	4.06	280736	272451	2.95
Endosulfan I	4.44	4.36	4.52	296607	295053	0.52
4,4'-DDE	4.39	4.29	4.49	229400	230893	0.65
Dieldrin	4.74	4.63	4.83	286879	250654	12.63
Endrin	5.03	4.93	5.13	251328	244267	2.81
Endosulfan II	5.32	5.22	5.42	249126	248355	0.31
4,4'-DDD	5.15	5.05	5.25	226015	231626	2.48
Endrin aldehyde	5.90	5.78	6.02	193717	195790	1.07
Endosulfan sulfate	6.52	6.40	6.64	215528	216389	0.40
4,4'-DDT	5.53	5.40	5.64	193635	161574	16.56
Endrin ketone	6.88	6.76	7.00	253954	259542	2.20
Methoxychlor	6.25	6.12	6.36	92981	78123	15.98
alpha-Chlordane	4.28	4.20	4.36	276510	270184	2.29
gamma-Chlordane	4.12	4.04	4.20	285196	278432	2.37
Chlordane 500 ppb	2.97	2.89	3.05	7578	7923	4.56
Chlordane {2}	3.47	3.39	3.55	9120	9769	7.12
Chlordane {3}	4.12	4.04	4.20	27556	29447	6.86
Chlordane {4}	4.27	4.19	4.35	43517	46343	6.49
Chlordane {5}	5.23	5.15	5.31	7002	7066	0.91
Toxaphene 500 ppb	5.08	4.99	5.15	2995	3298	10.11
Toxaphene {2}	5.42	5.32	5.48	4340	3714	14.41
Toxaphene {3}	5.88	5.79	5.95	5723	5308	7.25
Toxaphene {4}	6.38	6.29	6.45	6032	5385	10.72
Toxaphene {5}	6.86	6.78	6.94	5978	5616	6.07

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4615.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1305950	7.12
beta-BHC	3.30	3.24	3.36	516004	478438	7.28
gamma-BHC	3.22	3.16	3.28	1224881	1174751	4.09
delta-BHC	3.63	3.56	3.68	1208794	1162779	3.81
Heptachlor	3.72	3.64	3.80	1221918	1088582	10.91
Aldrin	4.11	4.02	4.18	1208772	1118169	7.50
Heptachlor epoxide	4.83	4.74	4.90	1019283	945667	7.22
Endosulfan I	5.36	5.27	5.43	915354	880712	3.78
4,4'-DDE	5.53	5.43	5.63	915635	898778	1.84
Dieldrin	5.74	5.64	5.84	971694	832697	14.30
Endrin	6.18	6.07	6.27	779441	747885	4.05
Endosulfan II	6.49	6.39	6.59	845502	818550	3.19
4,4'-DDD	6.38	6.27	6.47	705474	714109	1.22
Endrin aldehyde	6.95	6.83	7.07	543775	540727	0.56
Endosulfan sulfate	7.27	7.14	7.38	583376	556645	4.58
4,4'-DDT	6.83	6.70	6.94	538404	431768	19.81
Endrin ketone	7.77	7.65	7.89	555958	552244	0.67
Methoxychlor	7.58	7.46	7.70	200805	196164	2.31
alpha-Chlordane	5.28	5.20	5.36	945093	901614	4.60
gamma-Chlordane	5.08	5.00	5.16	1020218	964626	5.45
Chlordane 500 ppb	3.55	3.47	3.63	33798	34759	2.84
Chlordane {2}	4.28	4.20	4.36	38358	37937	1.10
Chlordane {3}	5.08	5.00	5.16	103667	105079	1.36
Chlordane {4}	5.21	5.13	5.29	81930	82551	0.76
Chlordane {5}	5.28	5.20	5.36	87377	91344	4.54
Toxaphene 500 ppb	6.63	6.54	6.70	14633	12489	14.65
Toxaphene {2}	6.98	6.88	7.04	15901	13549	14.79
Toxaphene {3}	7.22	7.13	7.29	12662	10856	14.27
Toxaphene {4}	7.51	7.43	7.59	12244	10700	12.61
Toxaphene {5}	7.87	7.78	7.94	8968	7944	11.42

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4651.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	378224	5.15
beta-BHC	2.69	2.63	2.75	138270	152327	10.17
gamma-BHC	2.62	2.56	2.68	307347	329467	7.20
delta-BHC	2.85	2.79	2.91	323067	351433	8.78
Heptachlor	3.04	2.96	3.12	318470	315977	0.78
Aldrin	3.33	3.25	3.41	315577	334622	6.03
Heptachlor epoxide	3.98	3.90	4.06	280736	296596	5.65
Endosulfan I	4.44	4.36	4.52	296607	320711	8.13
4,4'-DDE	4.39	4.29	4.49	229400	247127	7.73
Dieldrin	4.73	4.63	4.83	286879	266254	7.19
Endrin	5.03	4.93	5.13	251328	266394	5.99
Endosulfan II	5.32	5.22	5.42	249126	251072	0.78
4,4'-DDD	5.15	5.05	5.25	226015	253604	12.21
Endrin aldehyde	5.90	5.78	6.02	193717	193524	0.10
Endosulfan sulfate	6.52	6.40	6.64	215528	210351	2.40
4,4'-DDT	5.52	5.40	5.64	193635	159950	17.40
Endrin ketone	6.88	6.76	7.00	253954	237906	6.32
Methoxychlor	6.24	6.12	6.36	92981	83236	10.48
alpha-Chlordane	4.28	4.20	4.36	276510	290714	5.14
gamma-Chlordane	4.12	4.04	4.20	285196	302155	5.95

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4651.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1472856	4.75
beta-BHC	3.30	3.24	3.36	516004	537037	4.08
gamma-BHC	3.22	3.16	3.28	1224881	1313635	7.25
delta-BHC	3.62	3.56	3.68	1208794	1276661	5.61
Heptachlor	3.71	3.64	3.80	1221918	1180838	3.36
Aldrin	4.10	4.02	4.18	1208772	1247233	3.18
Heptachlor epoxide	4.82	4.74	4.90	1019283	1047093	2.73
Endosulfan I	5.35	5.27	5.43	915354	963332	5.24
4,4'-DDE	5.53	5.43	5.63	915635	943219	3.01
Dieldrin	5.74	5.64	5.84	971694	892875	8.11
Endrin	6.17	6.07	6.27	779441	827275	6.14
Endosulfan II	6.49	6.39	6.59	845502	845320	0.02
4,4'-DDD	6.37	6.27	6.47	705474	770882	9.27
Endrin aldehyde	6.95	6.83	7.07	543775	533845	1.83
Endosulfan sulfate	7.26	7.14	7.38	583376	540056	7.43
4,4'-DDT	6.82	6.70	6.94	538404	441591	17.98
Endrin ketone	7.77	7.65	7.89	555958	572551	2.98
Methoxychlor	7.57	7.46	7.70	200805	167890	16.39
alpha-Chlordane	5.28	5.20	5.36	945093	965094	2.12
gamma-Chlordane	5.08	5.00	5.16	1020218	1056385	3.55

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.99 **DCB 1** 7.90 **TCMX 2** 2.35 **DCB 2** 8.83

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS130923-11	09/24/2013	11:49	1.99		7.90		2.35		8.83	
C1/S1	09290-001	09/24/2013	12:01	1.98		7.89		2.33		8.82	
C2/S2	09290-002	09/24/2013	12:13	1.98		7.89		2.33		8.82	
PI-6N1/0-0	09339-001	09/24/2013	12:25	1.98		7.89		2.33		8.82	
PI-6E1/0-0	09339-003	09/24/2013	12:37	1.98		7.89		2.33		8.82	
PI-6W1/0-0	09339-005	09/24/2013	12:49	1.98		7.89		2.33		8.82	
PI-6S1/0-0	09339-007	09/24/2013	13:01	1.98		7.89		2.33		8.82	
PI-6D1/1-1	09339-009	09/24/2013	13:13	1.98		7.89		2.33		8.82	
C-1_WAREHO	09196-001	09/24/2013	13:25	1.98		7.89		2.33		8.82	
C-2_LOAD_D	09196-002	09/24/2013	13:37	1.98		7.89		2.33		8.82	
C-3_BLD_2	09196-003	09/24/2013	13:49	1.98		7.89		2.33		8.82	
C-4_IMP._M	09196-004	09/24/2013	14:01	1.98		7.88		2.33		8.82	
C-5_SPHINX	09196-005	09/24/2013	14:13	1.98		7.89		2.33		8.82	
PI-6S1/0-0	09339-007DL	09/24/2013	15:04	1.99		7.89		2.34		8.83	
C-1_WAREHO	09196-001DL	09/24/2013	15:16	1.98		7.89		2.33		8.82	
C-2_LOAD_D	09196-002DL	09/24/2013	15:28	1.98		7.88		2.33		8.82	
C-3_BLD_2	09196-003DL	09/24/2013	15:41	1.98		7.89		2.33		8.82	
C-5_SPHINX	09196-005DL	09/24/2013	15:53	1.98		7.89		2.33		8.81	
AOC-7-2/11	09197-004	09/24/2013	16:05	1.98		7.83		2.33		8.82	
AOC-7-3/9.	09197-005	09/24/2013	16:29	1.98		7.89		2.33		8.82	
AOC-8/12.5	09197-007	09/24/2013	16:41	1.98		7.89		2.33		8.82	
AOC-12-2/3	09197-009	09/24/2013	16:53	1.98		7.89		2.33		8.82	
AOC-6/18.5	09197-010	09/24/2013	17:05	1.98		7.89		2.33		8.82	
AOC-12-3/1	09198-003	09/24/2013	17:17	1.98		7.89		2.33		8.82	
VTS_D1	08883-001	09/24/2013	17:29	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1	1.99	DCB 1	7.90	TCMX 2	2.35	DCB 2	8.83

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	09198-003MSD	09/24/2013	17:53	1.98		7.89		2.33		8.82	
Pest	LCSS130923-11	09/24/2013	18:05	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 09/24/2013

Data file: V4613.D Tue Sep 24 09:44:02 2013

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	14266367	Endrin (1)	19199025	11.14	5.87
DDD	1240980	Endrin ketone	899773		
DDE	546959	Endrin aldehyde	297954		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	43983997	Endrin (2)	66718443	0.55	3.93
DDD	43769	Endrin ketone	2668567		
DDE	199164	Endrin aldehyde	58684		

PESTICIDE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4640.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:05
Operator : IB
Sample : AOC-7-2/11,09197-004,S,30.89g,17.8,09/23/13
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:30:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	2829496	8874964	15.715	12.645
Spiked Amount 200.000			Recovery	=	7.86%	6.32%
2) S DCB	7.83	8.82	47201986	9401698	654.696m	54.577m#
Spiked Amount 200.000			Recovery	=	327.35%	27.29%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

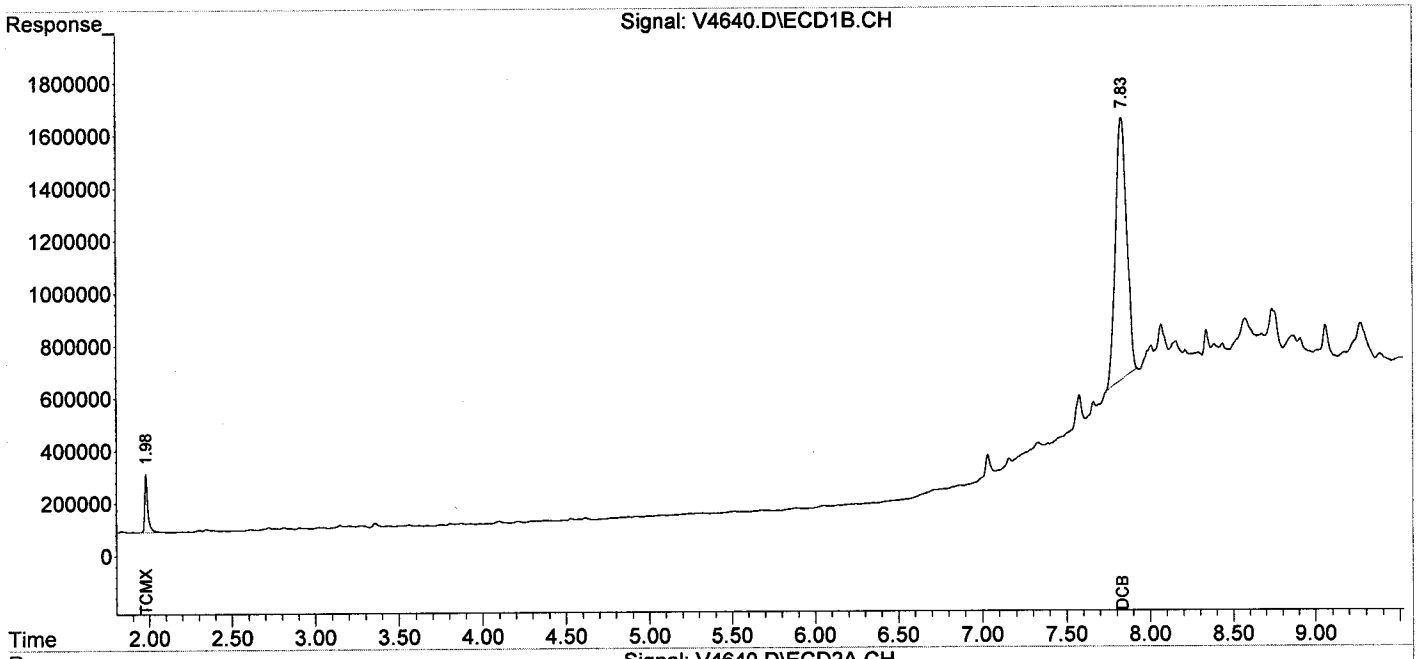
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

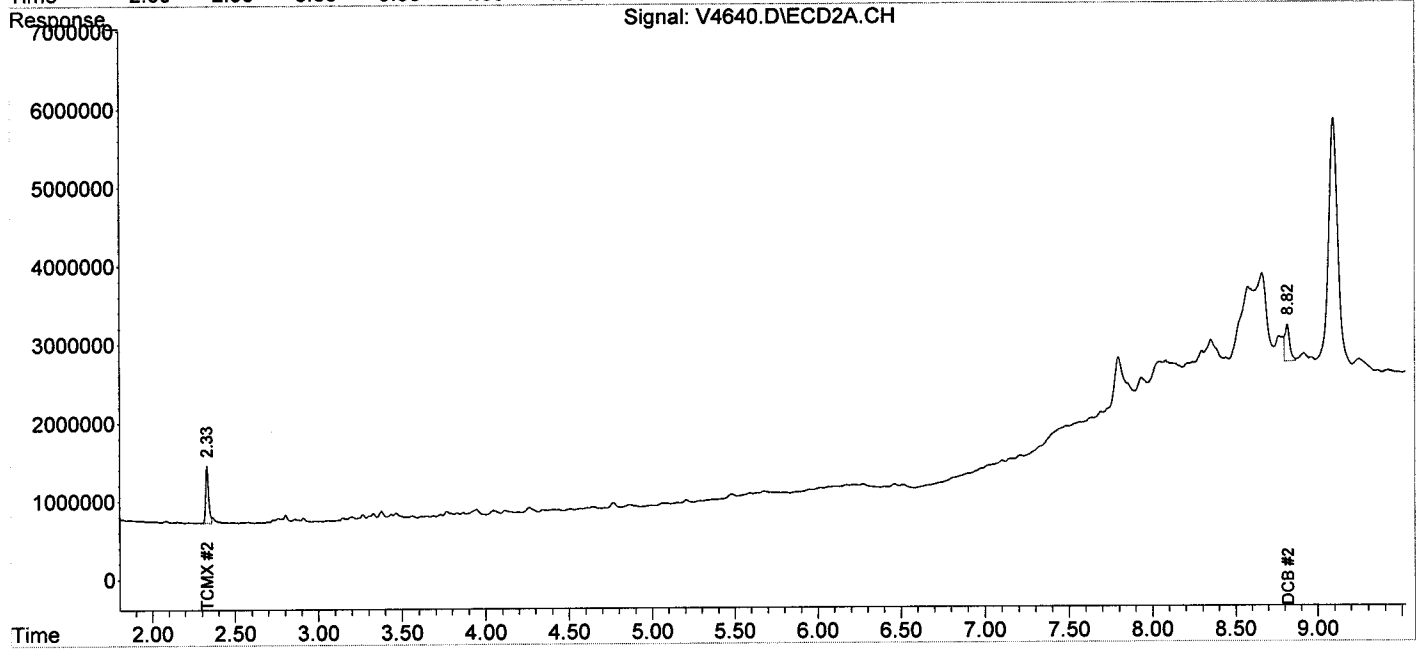
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4640.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:05
Operator : IB
Sample : AOC-7-2/11,09197-004,S,30.89g,17.8,09/23/13
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:30:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4642.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:29
Operator : IB
Sample : AOC-7-3/9.,09197-005,S,30.35g,25.6,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:05:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	2806533	9859106	15.588	14.047
Spiked Amount 200.000			Recovery =		7.79%	7.02%
2) S DCB	7.89	8.82	2295564	6128602	31.840m	35.577m
Spiked Amount 200.000			Recovery =		15.92%	17.79%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

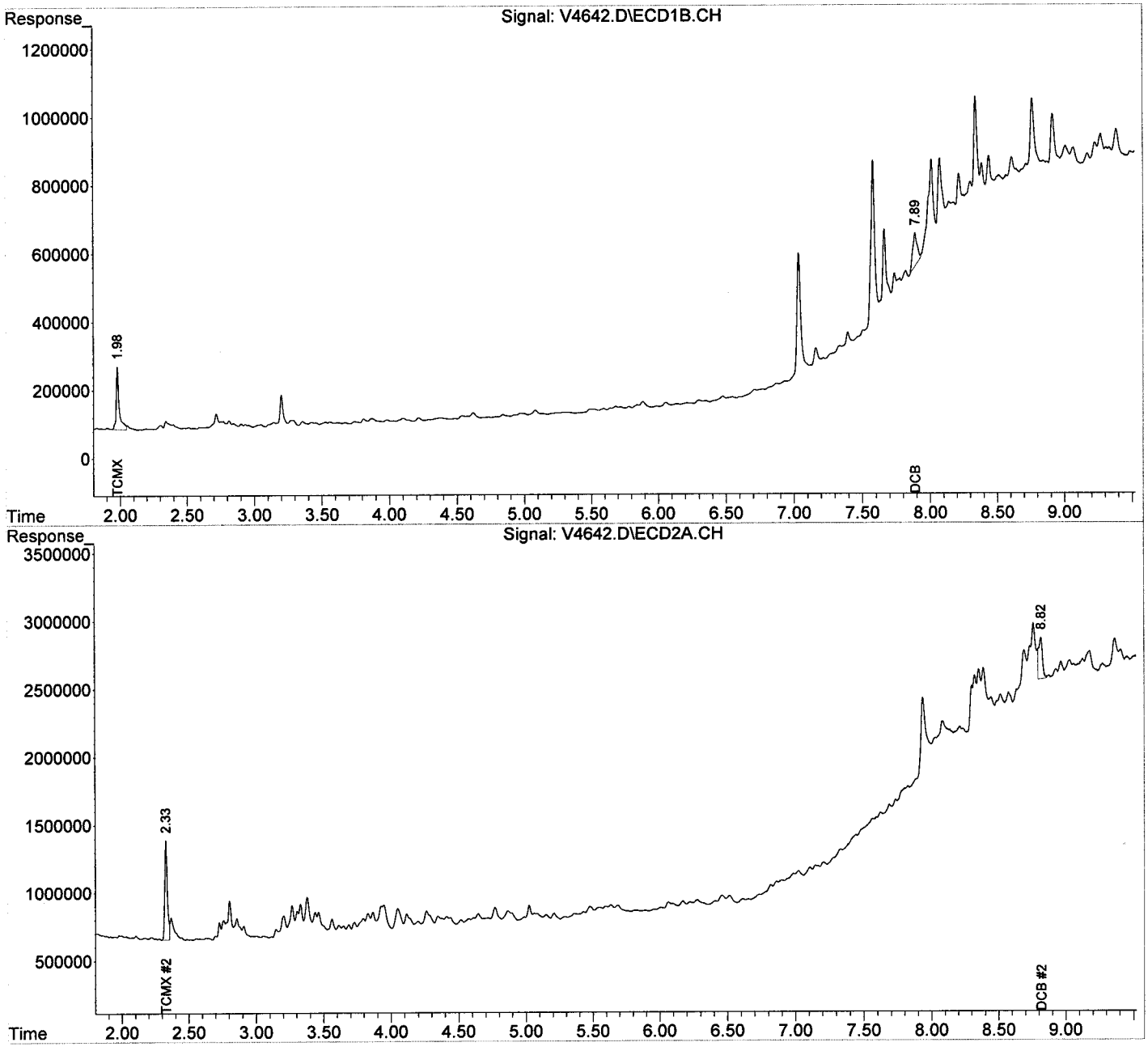
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4642.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:29
Operator : IB
Sample : AOC-7-3/9.,09197-005,S,30.35g,25.6,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:05:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4643.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:41
Operator : IB
Sample : AOC-8/12.5,09197-007,S,30.88g,17.0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:04:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	14661247	46196691	81.429	65.819
Spiked Amount 200.000			Recovery	=	40.71%	32.91%
2) S DCB	7.89	8.82	7326638	21553556	101.621m	125.120m
Spiked Amount 200.000			Recovery	=	50.81%	62.56%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

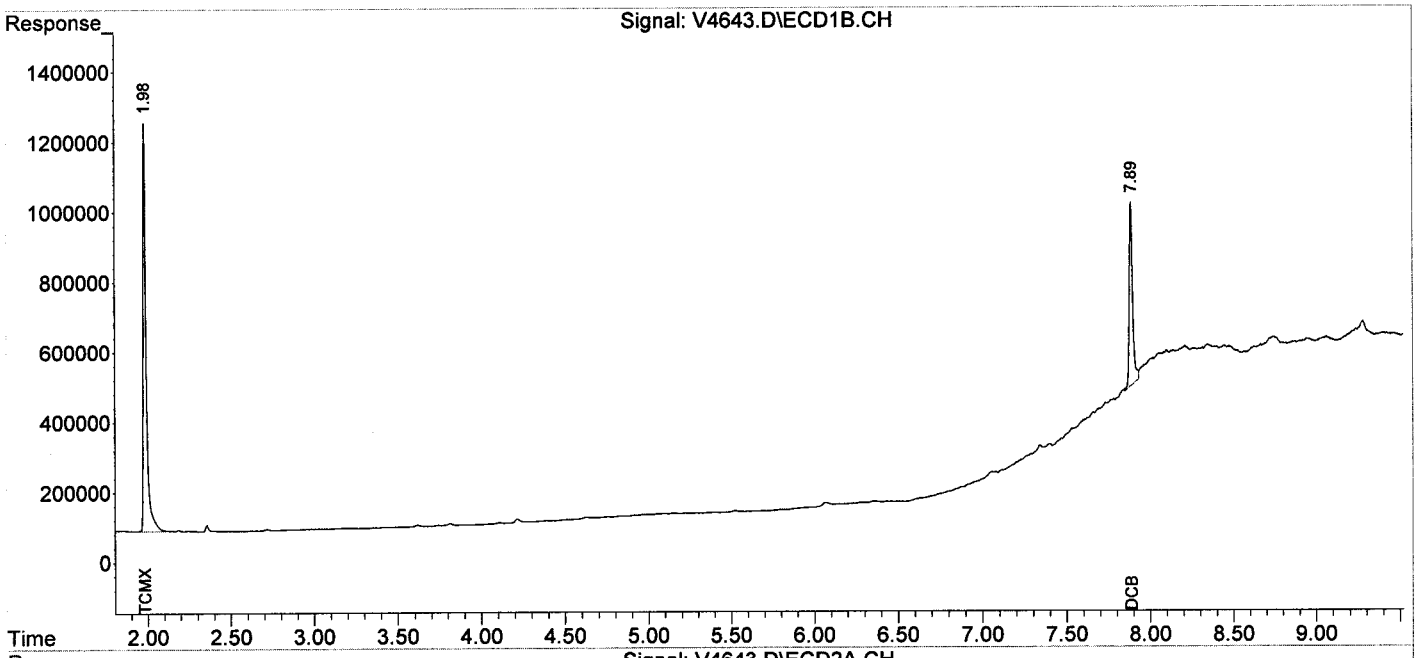
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

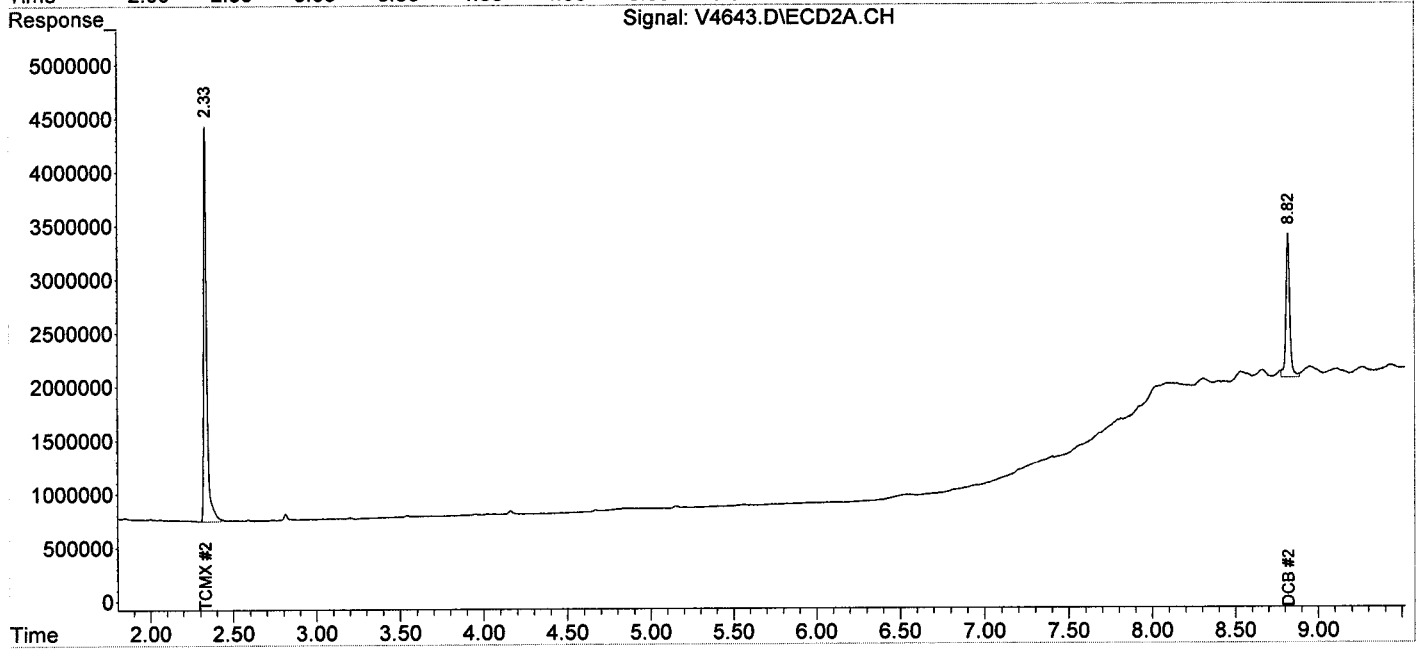
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4643.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:41
Operator : IB
Sample : AOC-8/12.5,09197-007,S,30.88g,17.0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:04:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4644.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:53
Operator : IB
Sample : AOC-12-2/3,09197-009,S,30.21g,14.0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:01:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	2606466	8429477	14.476	12.010
Spiked Amount 200.000			Recovery =		7.24%	6.00%
2) S DCB	7.89	8.82	1213920	3891063	16.837m	22.588m#
Spiked Amount 200.000			Recovery =		8.42%	11.29%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

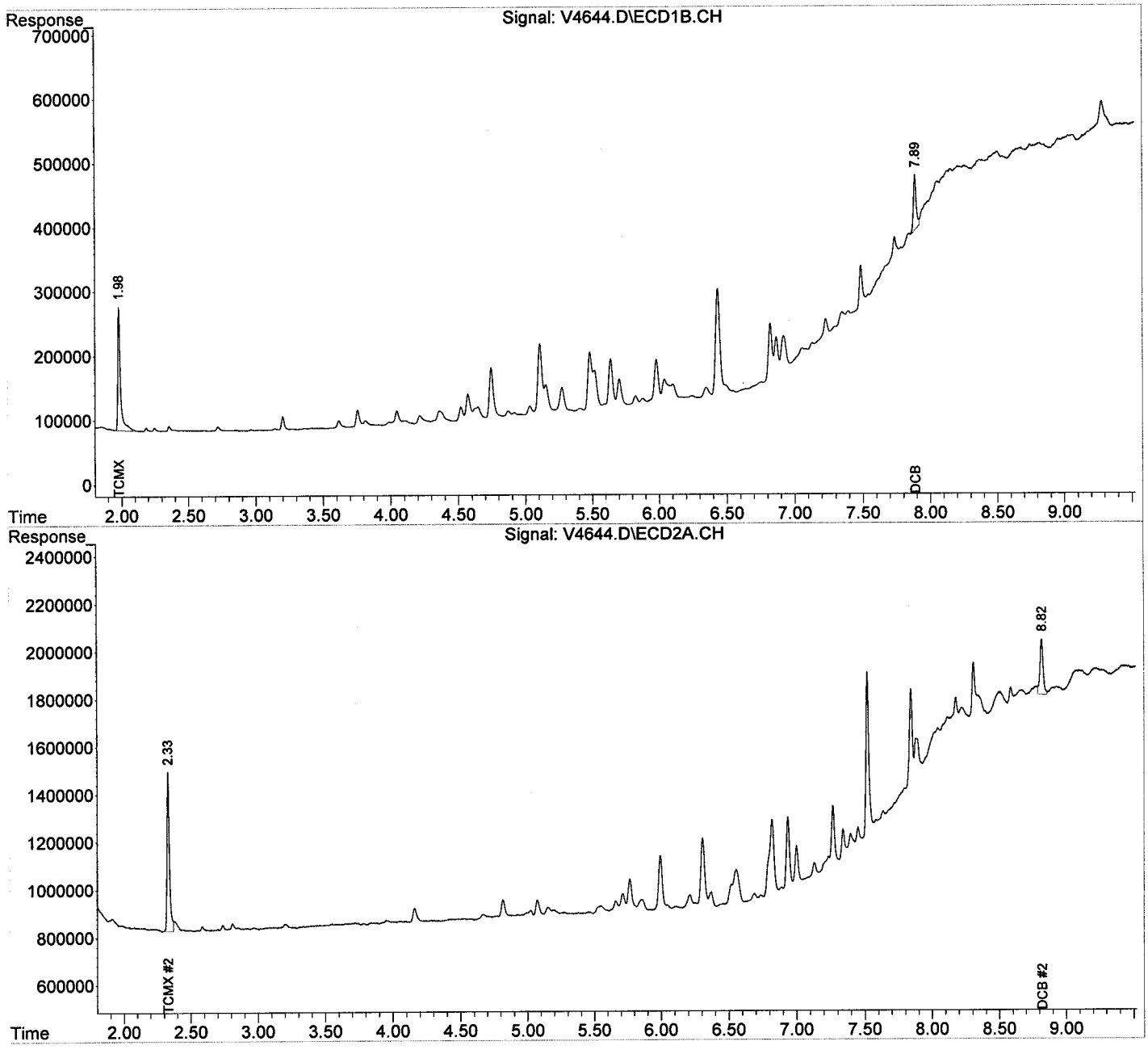
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4644.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:53
Operator : IB
Sample : AOC-12-2/3,09197-009,S,30.21g,14.0,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,5
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:01:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4645.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 17:05
Operator : IB
Sample : AOC-6/18.5,09197-010,S,30.54g,17.7,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:00:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	18187260	66010148	101.012	94.048
Spiked Amount 200.000			Recovery	=	50.51%	47.02%
2) S DCB	7.89	8.82	8543816	26602094	118.504m	154.427 #
Spiked Amount 200.000			Recovery	=	59.25%	77.21%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

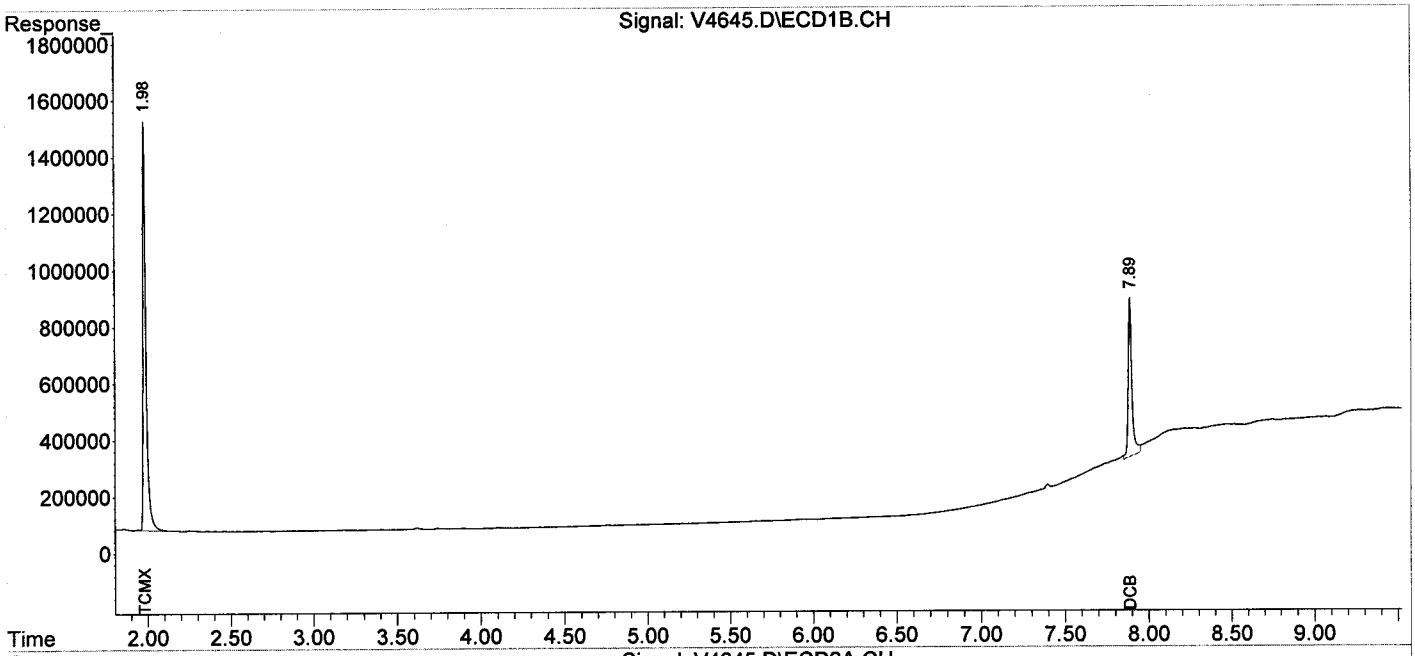
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

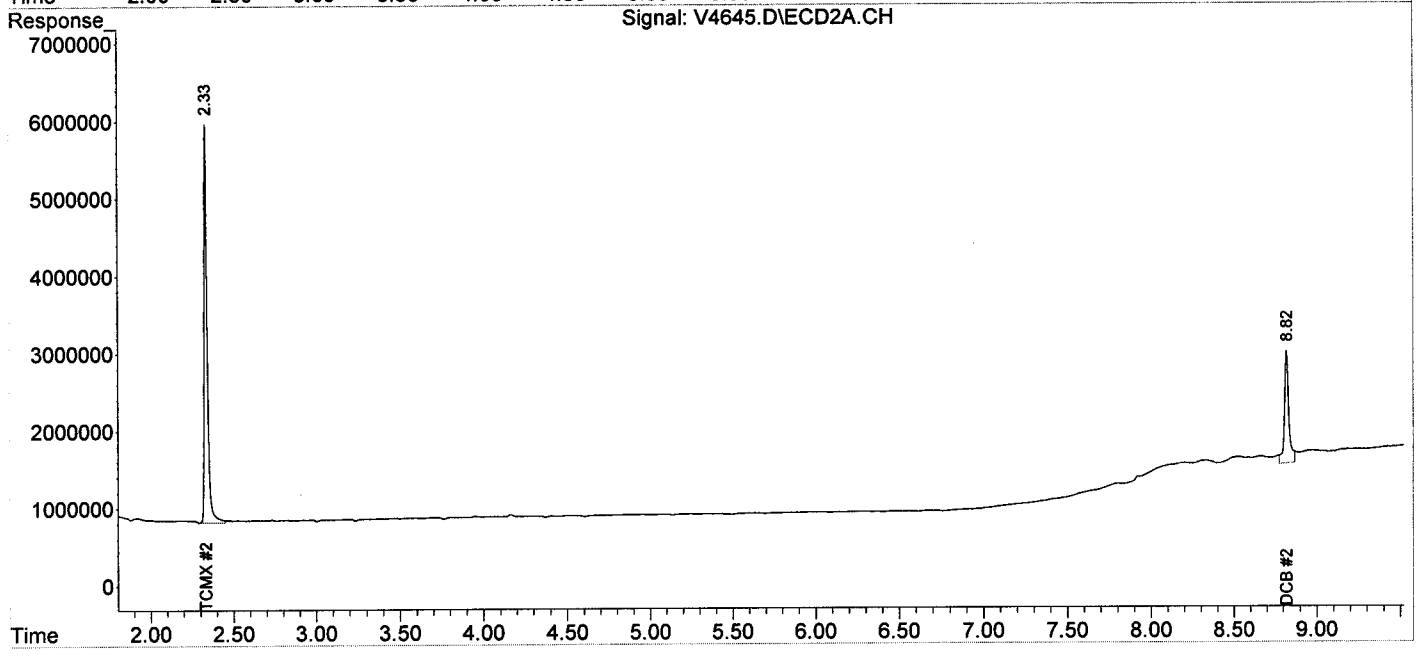
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4645.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 17:05
Operator : IB
Sample : AOC-6/18.5,09197-010,S,30.54g,17.7,09/23/13,1
Misc : 130923-11,09/17/13,09/18/13,1
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:00:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS130923-11
Client ID: Pest
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4621.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000334	0.000167
beta-BHC	ND		0.000334	0.000167
gamma-BHC (Lindane)	ND		0.000334	0.000167
delta-BHC	ND		0.000334	0.000167
Heptachlor	ND		0.000334	0.000167
Aldrin	ND		0.000334	0.000167
Heptachlor epoxide	ND		0.000334	0.000167
Endosulfan I	ND		0.000334	0.000167
4,4'-DDE	ND		0.000334	0.000167
Dieldrin	ND		0.000334	0.000167
Endrin	ND		0.000334	0.000167
Endosulfan II	ND		0.000334	0.000167
4,4'-DDD	ND		0.000334	0.000167
Endrin aldehyde	ND		0.000334	0.000167
Endosulfan sulfate	ND		0.000334	0.000167
4,4'-DDT	ND		0.000334	0.000167
Endrin ketone	ND		0.000334	0.000167
Methoxychlor	ND		0.000334	0.000167
alpha-Chlordane	ND		0.000334	0.000167
gamma-Chlordane	ND		0.000334	0.000167
Toxaphene	ND		0.00418	0.002
Endosulfan (I and II)	ND		0.000334	0.000167
Chlordane (alpha and gamma)	ND		0.000334	0.000167

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4621.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 11:49
Operator : IB
Sample : Pest,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 13:46:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

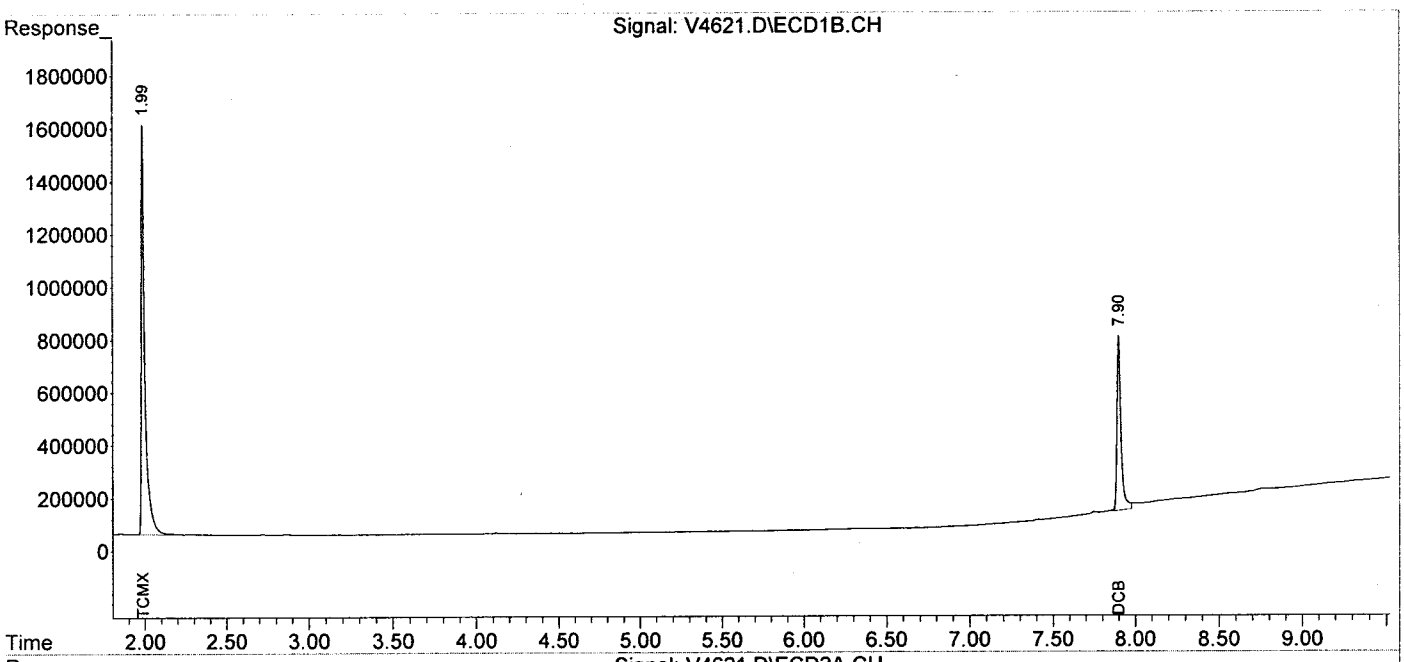
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.99	2.35	23680371	96331302	131.521	137.248
Spiked Amount 200.000			Recovery	=	65.76%	68.62%
2) S DCB	7.90	8.83	11432546	27328357	158.570	158.643
Spiked Amount 200.000			Recovery	=	79.28%	79.32%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

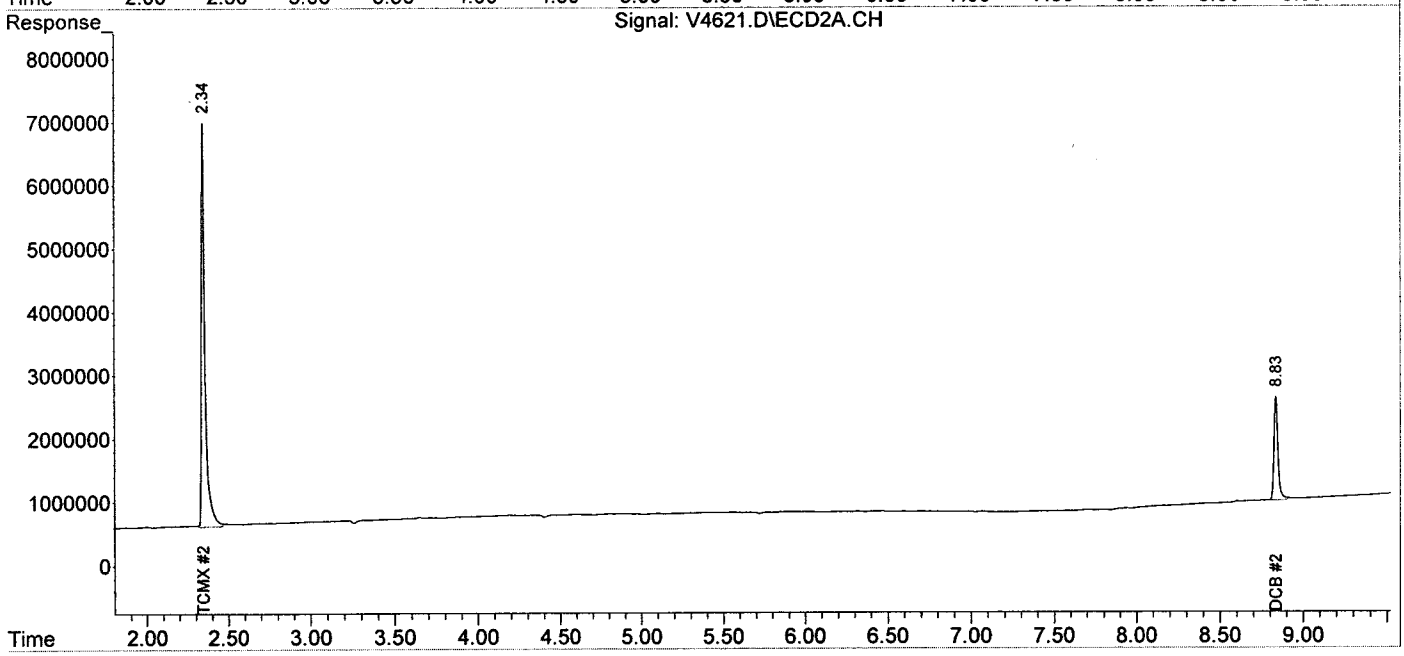
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4621.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On   : 24 Sep 2013 11:49
Operator : IB
Sample   : Pest,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc   : NA,NA,NA,1
ALS Vial : 5   Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 13:46:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Small noise peaks clipped

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :





HERBICIDE DATA

HERBICIDE DATA

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/30/2013

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKS130926-05	SOIL	86		85	
Herb	LCSS130926-05	SOIL	69		93	
AOC-12-3/1	09198-003	SOIL	40		50	
Herb	09198-003MS	SOIL	48		55	
Herb	09198-003MSD	SOIL	52		49	
C-1_WAREHO	09196-001	SOLID	98		54	
C-2_LOAD_D	09196-002	SOLID	268	M	56	
C-3_BLD_2	09196-003	SOLID	124		54	
C-4_IMP._M	09196-004	SOLID	182	M	48	
AOC-7-2/11	09197-004	SOIL	34		39	
AOC-7-3/9.	09197-005	SOIL	47		52	
AOC-8/12.5	09197-007	SOIL	91		99	
AOC-12-2/3	09197-009	SOIL	77		65	
AOC-6/18.5	09197-010	SOIL	67		65	
C-5_SPHINX	09196-005	SOLID	0	D	0	D
C-5_SPHINX	09196-005DL	SOLID	0	D	0	D

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130926-05
Date Received: NA
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0323.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
Dalapon	200.0	0.00	171.44	86
Dicamba	200.0	0.00	145.06	73
2,4-D	200.0	0.00	93.54	47
2,4,5-TP (Silvex)	200.0	0.00	165.32	83
2,4,5-T	200.0	0.00	148.41	74
2,4-DB	200.0	0.00	217.18	109
Dinoseb	200.0	0.00	118.12	59

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09198-003
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
MS Data file: W0326.D
MSD Data file: W0327.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.18g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
Dalapon	200.00	0.00	61.64	31		69.91	35	13
Dicamba	200.00	0.00	71.47	36		81.61	41	13
2,4-D	200.00	0.00	63.10	32		75.09	38	17
2,4,5-TP (Silvex)	200.00	0.00	67.96	34		81.25	41	18
2,4,5-T	200.00	0.00	60.24	30		59.84	30	1
2,4-DB	200.00	0.00	111.57	56		126.23	63	12
Dinoseb	200.00	0.00	63.53	32		68.72	34	8

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

HERBICIDE METHOD BLANK SUMMARY

Lab File ID: W0323.D

Instrument ID: GC-W

Date Extracted: 09/26/2013

Matrix: SOIL

Date Analyzed: 09/30/2013

Time Analyzed: 09:43

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Herb	LCSS130926-05	09/30/2013	09:57
AOC-12-3/1	09198-003	09/30/2013	10:11
Herb	09198-003MS	09/30/2013	10:25
Herb	09198-003MSD	09/30/2013	10:39
C-1_WAREHO	09196-001	09/30/2013	10:53
C-2_LOAD_D	09196-002	09/30/2013	11:07
C-3_BLD_2	09196-003	09/30/2013	11:21
C-4_IMP._M	09196-004	09/30/2013	11:35
AOC-7-2/11	09197-004	09/30/2013	12:31
AOC-7-3/9.	09197-005	09/30/2013	12:45
AOC-8/12.5	09197-007	09/30/2013	12:59
AOC-12-2/3	09197-009	09/30/2013	13:14
AOC-6/18.5	09197-010	09/30/2013	13:28
C-5_SPHINX	09196-005	09/30/2013	13:42
C-5_SPHINX	09196-005DL	09/30/2013	13:58

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 09/19/2013

Instrument ID: GC-W

GC Column (1st): RTX-CLP1

Data File: W0294.D W0293.D W0292.D W0291.D W0290.D

Compound	RT OF STANDARDS					MEAN RT	RT WI NDOW FROM	RT WI NDOW TO
	50	100	200	250	400			
Dalapon	2.21	2.21	2.21	2.21	2.21	2.21	2.14	2.28
Dicamba	4.82	4.82	4.82	4.82	4.82	4.82	4.75	4.89
2,4-D	5.29	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.70	5.70	5.70	5.70	5.61	5.79
2,4,5-T	5.87	5.87	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.17	6.17	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.89	6.89	6.89	6.89	6.89	6.89	6.80	6.98

GC Column (2nd): RTX-CLP2

Data File: W0294.C W0293.C W0292.C W0291.C W0290.C

Compound	RT OF STANDARDS					MEAN RT	RT WI NDOW FROM	RT WI NDOW TO
	50	100	200	250	400			
Dalapon	2.17	2.17	2.18	2.18	2.18	2.18	2.11	2.25
Dicamba	5.02	5.02	5.02	5.02	5.02	5.02	4.95	5.09
2,4-D	5.54	5.53	5.53	5.53	5.53	5.53	5.45	5.61
2,4,5-TP (Silvex)	5.99	5.99	5.98	5.98	5.98	5.98	5.89	6.07
2,4,5-T	6.22	6.22	6.22	6.21	6.21	6.22	6.13	6.31
2,4-DB	6.56	6.56	6.55	6.55	6.55	6.55	6.46	6.64
Dinoseb	6.79	6.79	6.79	6.79	6.79	6.79	6.70	6.88

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 09/19/2013 **Instrument ID:** GC-W

GC Column (1st): RTX-CLP1

Data File: W0294.D W0293.D W0292.D W0291.D W0290.D

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	667410	660186	644212	791023	664098	685386	8.71
Dicamba	1730473	1710168	1671681	2107998	1810946	1806253	9.75
2,4-D	765989	693648	669959	743691	634457	701549	7.64
Silvex	2670698	2673622	2647711	3376779	2461358	2766033	12.75
2,4,5-T	2875063	2774216	2669047	3296605	2338229	2790632	12.45
2,4-DB	524870	509783	460705	538972	496935	506253	5.92
Dinoseb	2168991	2000882	1927554	2415395	2011712	2104907	9.24

GC Column (2nd): RTX-CLP2

Data File: W0294.C W0293.C W0292.C W0291.C W0290.C

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	87415	87751	88934	114231	99195	95505	12.09
Dicamba	243882	244363	221794	277287	239037	245273	8.20
2,4-D	74904	76134	69691	84328	70649	75141	7.74
Silvex	365852	377006	363589	451341	382642	388086	9.33
2,4,5-T	342958	353202	339329	418880	354965	361867	9.00
2,4-DB	45387	47160	41110	52013	43943	45922	8.84
Dinoseb	223573	232962	226434	292018	248969	244791	11.51

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/30/2013 **Instrument ID:** GC-W

Data File: W0322.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	623178	9.08
Dicamba	4.82	4.75	4.89	1806253	1646555	8.84
2,4-D	5.28	5.20	5.36	701549	646166	7.89
Silvex	5.70	5.61	5.79	2766033	2419834	12.52
2,4,5-T	5.86	5.77	5.95	2790632	2452165	12.13
2,4-DB	6.16	6.07	6.25	506253	488924	3.42
Dinoseb	6.89	6.80	6.98	2104907	2001846	4.90

GC Column (2nd): RTX-CLP2

Data File: W0322.C

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.18	2.11	2.25	95505	95252	0.26
Dicamba	5.02	4.95	5.09	245273	247939	1.09
2,4-D	5.53	5.45	5.61	75141	80775	7.50
Silvex	5.99	5.89	6.07	388086	419419	8.07
2,4,5-T	6.22	6.13	6.31	361867	391826	8.28
2,4-DB	6.56	6.46	6.64	45922	49921	8.71
Dinoseb	6.79	6.70	6.88	244791	261550	6.85

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/30/2013 **Instrument ID:** GC-W

Data File: W0340.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	656262	4.25
Dicamba	4.82	4.75	4.89	1806253	1751402	3.04
2,4-D	5.28	5.20	5.36	701549	720174	2.65
Silvex	5.70	5.61	5.79	2766033	2873327	3.88
2,4,5-T	5.86	5.77	5.95	2790632	2942189	5.43
2,4-DB	6.16	6.07	6.25	506253	462414	8.66
Dinoseb	6.89	6.80	6.98	2104907	2407735	14.39

GC Column (2nd): RTX-CLP2

Data File: W0340.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.17	2.11	2.25	95505	89690	6.09
Dicamba	5.02	4.95	5.09	245273	230413	6.06
2,4-D	5.53	5.45	5.61	75141	76034	1.19
Silvex	5.98	5.89	6.07	388086	387473	0.16
2,4,5-T	6.22	6.13	6.31	361867	367731	1.62
2,4-DB	6.55	6.46	6.64	45922	48945	6.58
Dinoseb	6.79	6.70	6.88	244791	263943	7.82

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.93

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKS130926-05	09/30/2013	09:43	4.74		4.93	
Herb	LCSS130926-05	09/30/2013	09:57	4.73		4.92	
AOC-12-3/1	09198-003	09/30/2013	10:11	4.73		4.92	
Herb	09198-003MS	09/30/2013	10:25	4.73		4.92	
Herb	09198-003MSD	09/30/2013	10:39	4.73		4.92	
C-1_WAREHO	09196-001	09/30/2013	10:53	4.73		4.92	
C-2_LOAD_D	09196-002	09/30/2013	11:07	4.72		4.92	
C-3_BLD_2	09196-003	09/30/2013	11:21	4.73		4.92	
C-4_IMP._M	09196-004	09/30/2013	11:35	4.72		4.92	
AOC-7-2/11	09197-004	09/30/2013	12:31	4.73		4.92	
AOC-7-3/9.	09197-005	09/30/2013	12:45	4.73		4.92	
AOC-8/12.5	09197-007	09/30/2013	12:59	4.73		4.92	
AOC-12-2/3	09197-009	09/30/2013	13:14	4.73		4.92	
AOC-6/18.5	09197-010	09/30/2013	13:28	4.73		4.92	
C-5_SPHINX	09196-005	09/30/2013	13:42	0.00	D	0.00	D
C-5_SPHINX	09196-005DL	09/30/2013	13:58	0.00	D	0.00	D

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0333.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 12:31
Operator : JS
Sample : AOC-7-2/11,09197-004,S,15.83g,17.8,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:12:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.73	4.92	67826669	10209667	34.184	38.560
	Spiked Amount 100.000			Recovery	=	34.18%	38.56%
	Target Compounds						

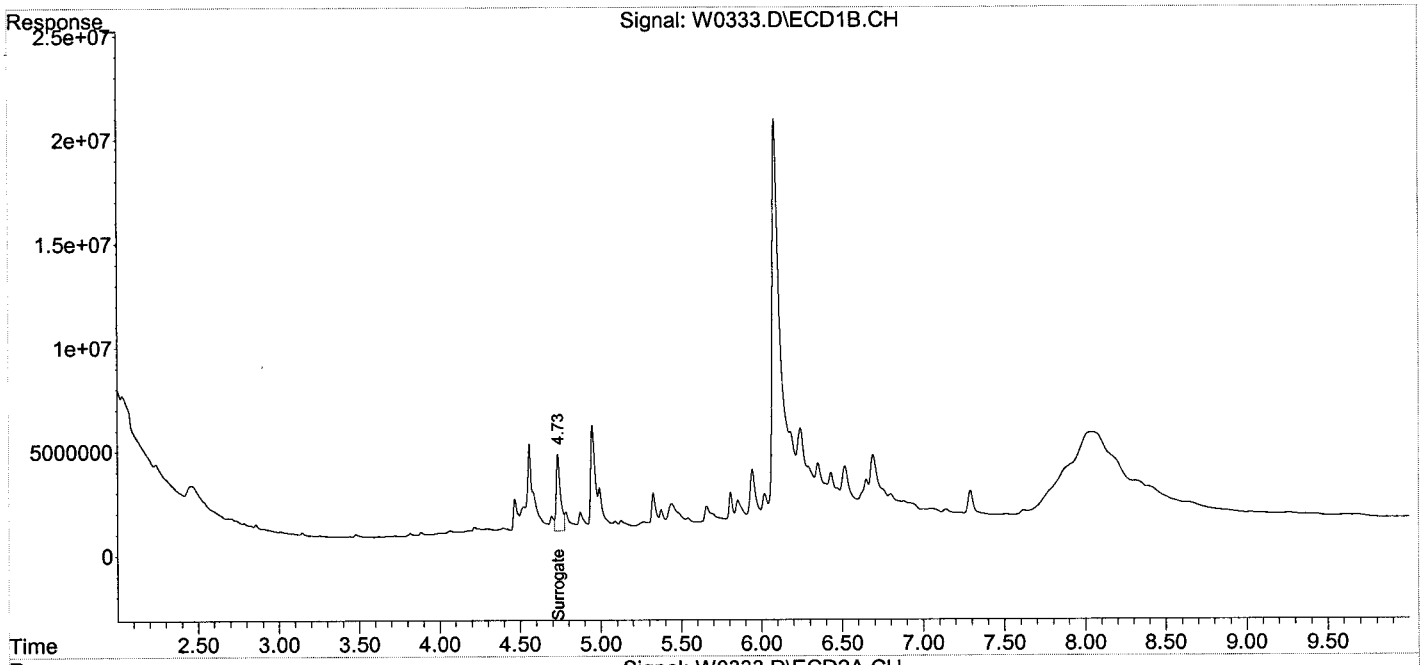
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

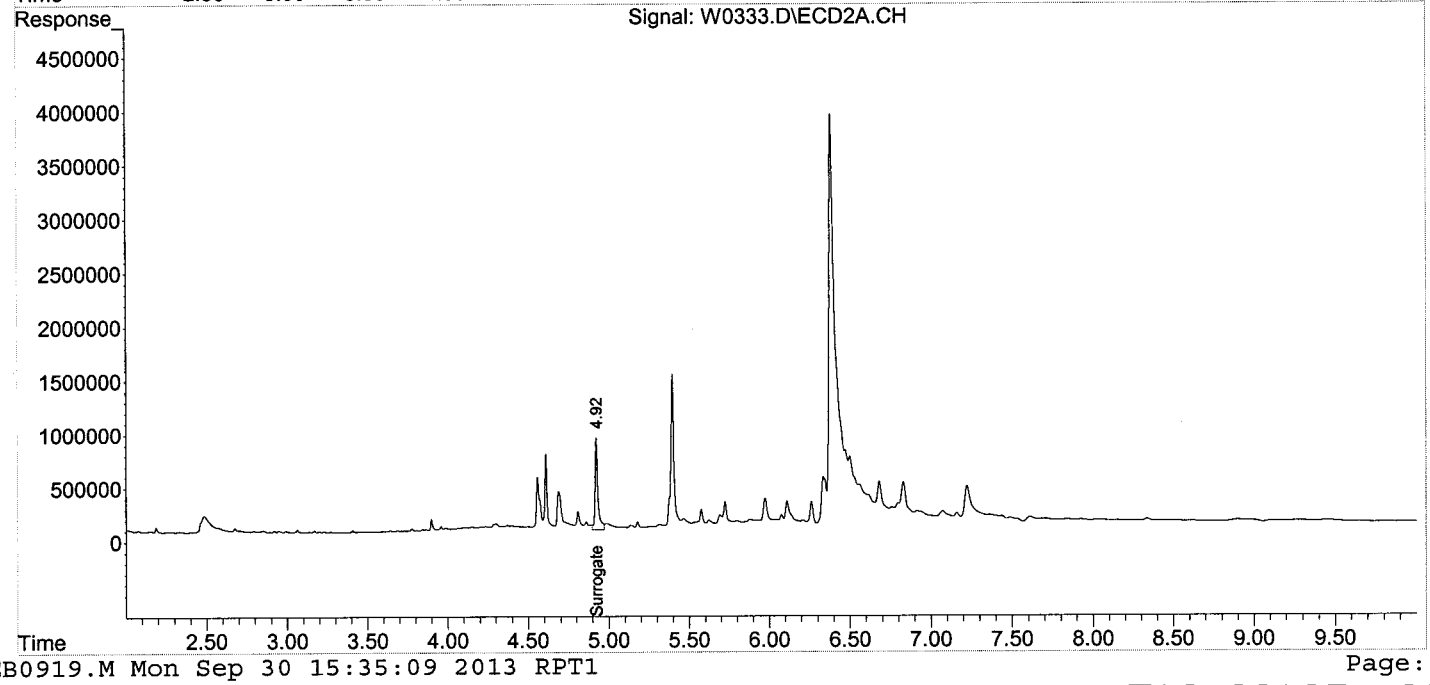
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0333.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 12:31
Operator : JS
Sample : AOC-7-2/11,09197-004,S,15.83g,17.8,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:12:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0334.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 12:45
Operator : JS
Sample : AOC-7-3/9.,09197-005,S,15.36g,25.6,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:13:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.73	4.92	93305955	13654147	47.026	51.570
	Spiked Amount 100.000			Recovery	=	47.03%	51.57%
	Target Compounds						

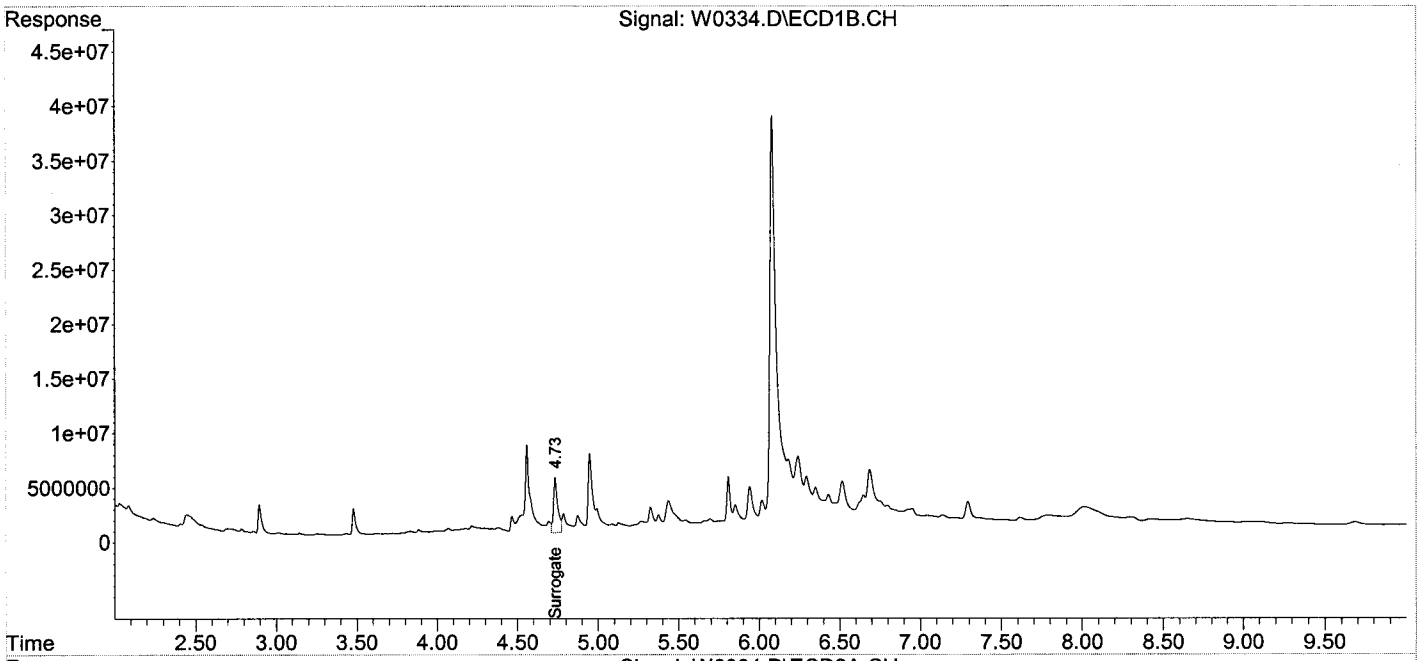
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

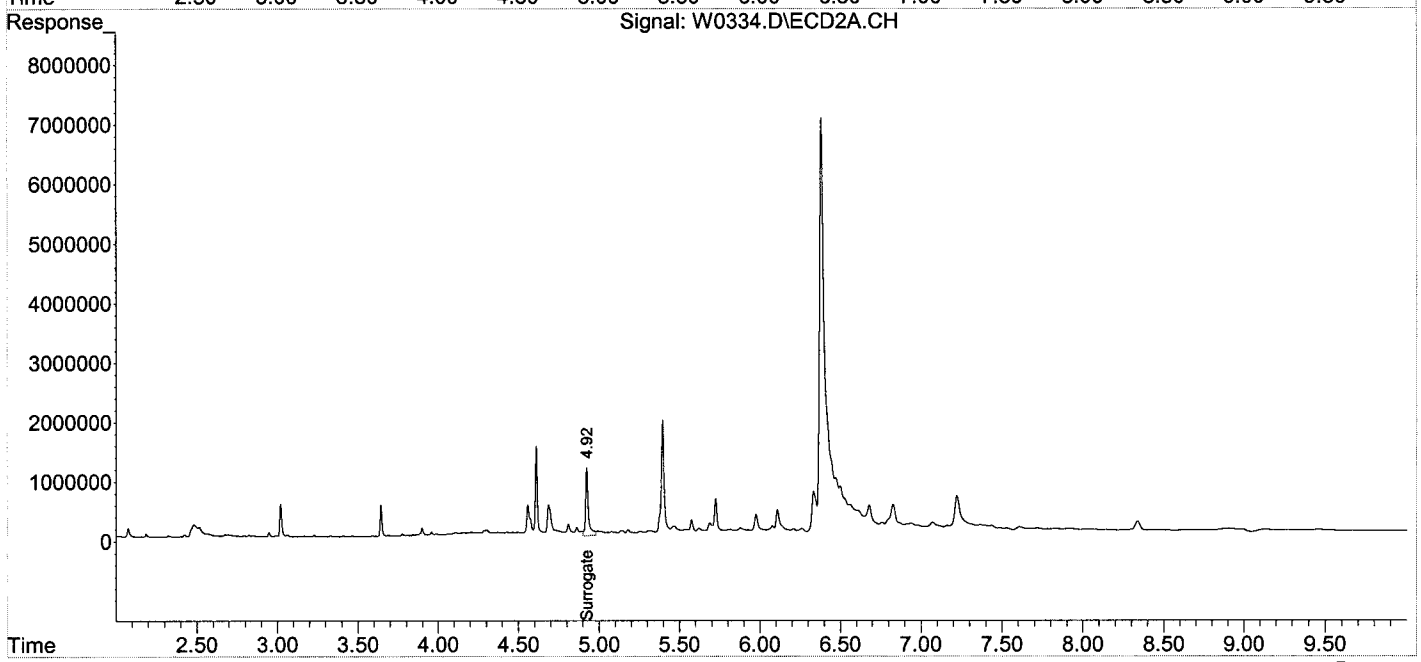
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0334.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 12:45
Operator : JS
Sample : AOC-7-3/9.,09197-005,S,15.36g,25.6,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:13:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0335.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 12:59
Operator : JS
Sample : AOC-8/12.5,09197-007,S,15.23g,17.0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:14:27 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.73	4.92	180.9E6	26235885	91.184m	99.089
Spiked Amount	100.000			Recovery	=	91.18%	99.09%
	Target Compounds						

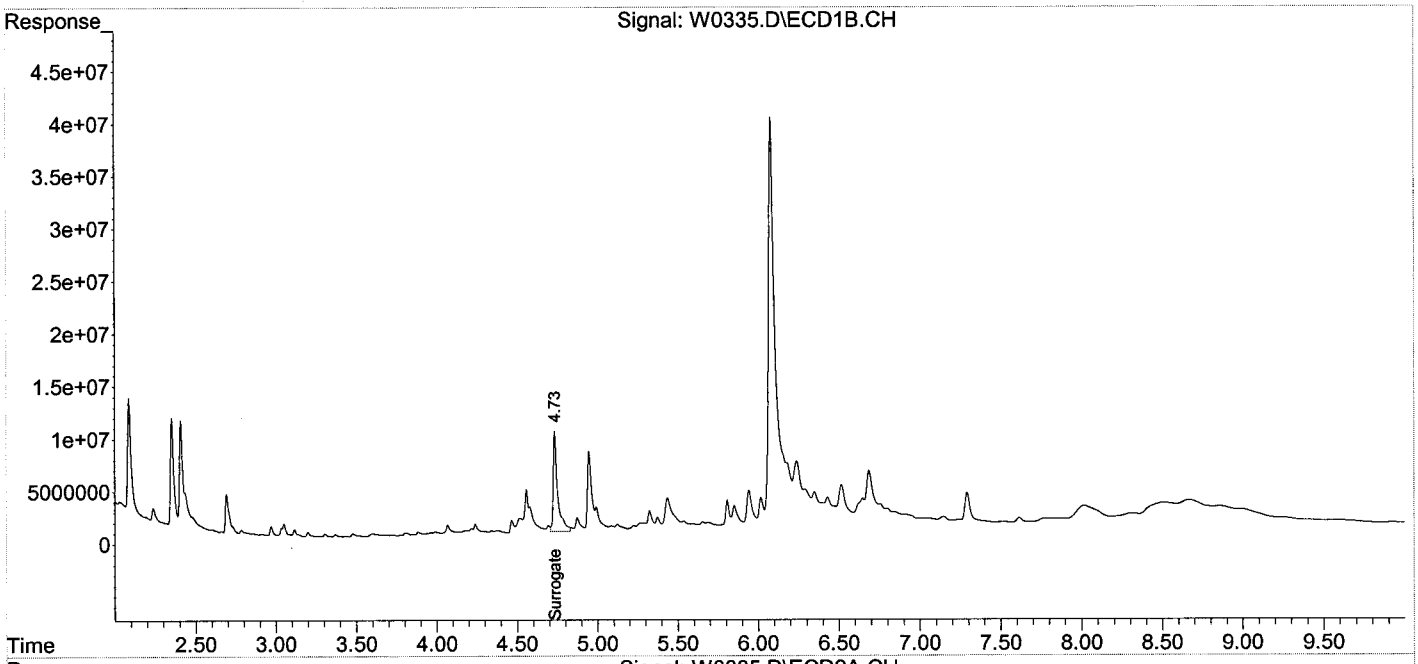
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

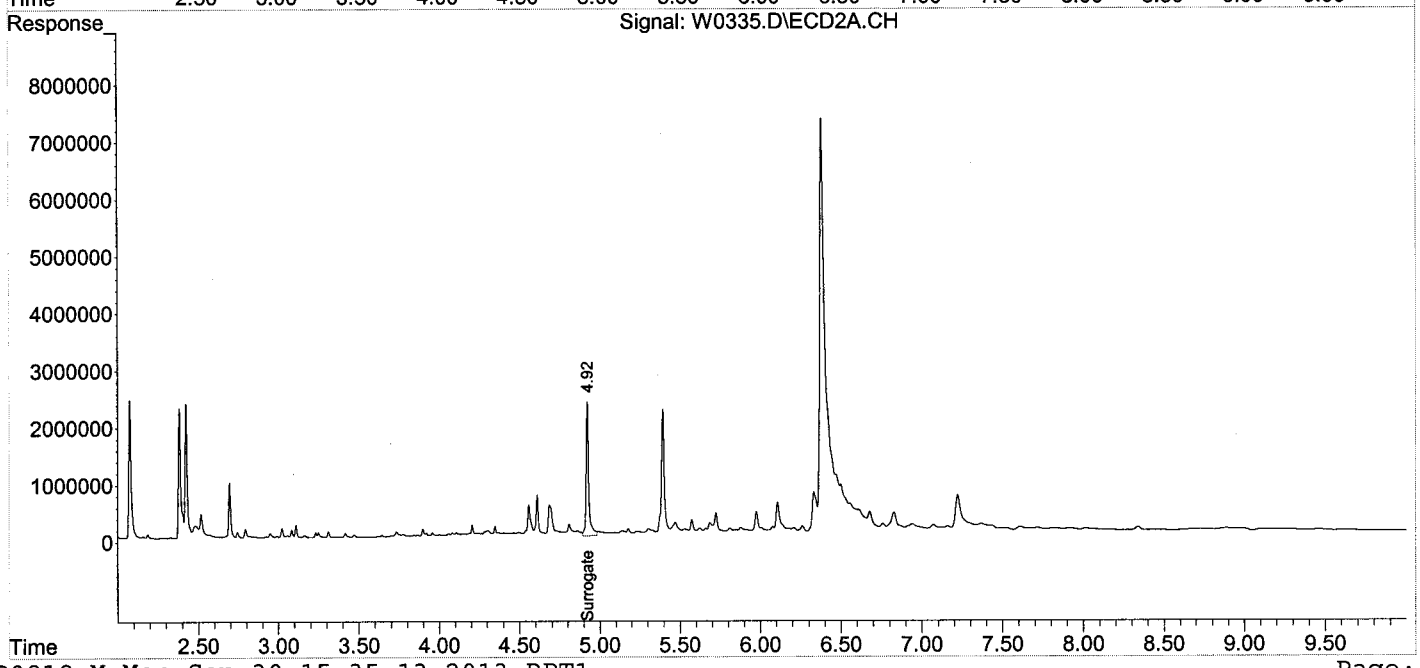
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0335.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 12:59
Operator : JS
Sample : AOC-8/12.5,09197-007,S,15.23g,17.0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:14:27 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0336.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 13:14
Operator : JS
Sample : AOC-12-2/3,09197-009,S,15.00g,14.0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:35:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.73	4.92	152.5E6	17273087	76.869	65.238
Spiked Amount	100.000			Recovery	=	76.87%	65.24%
	Target Compounds						

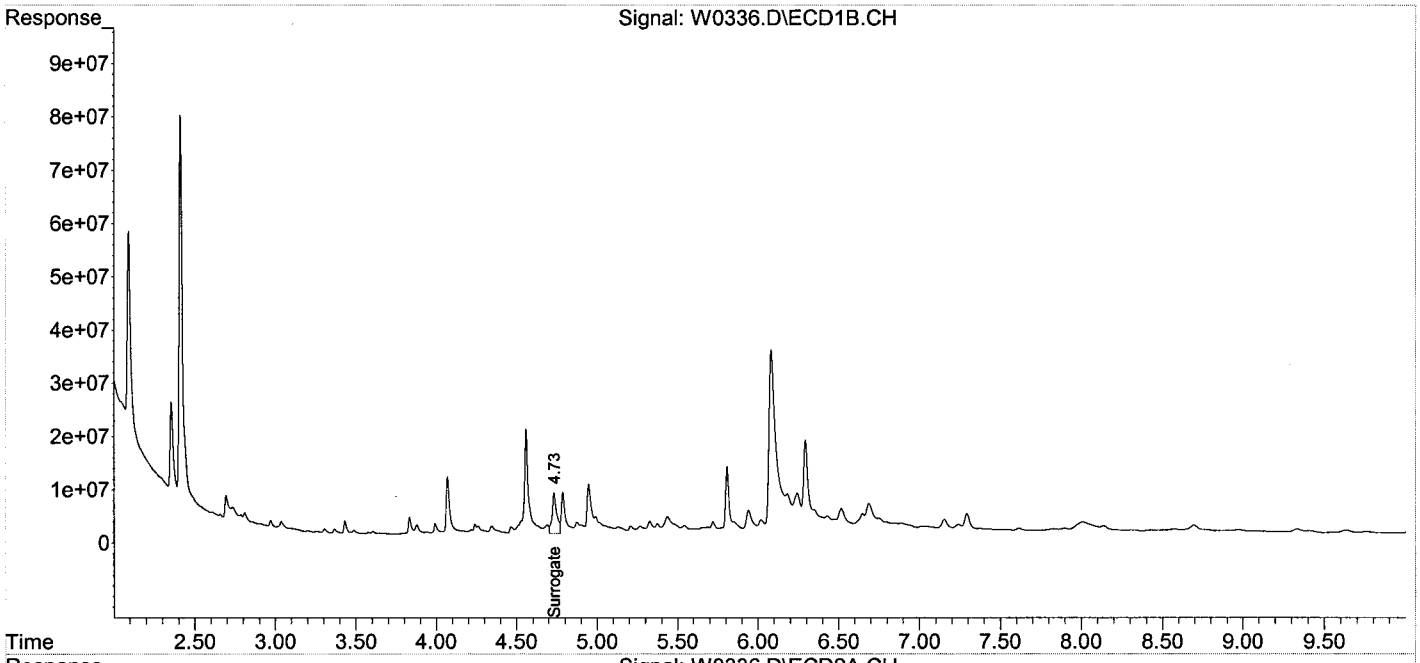
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

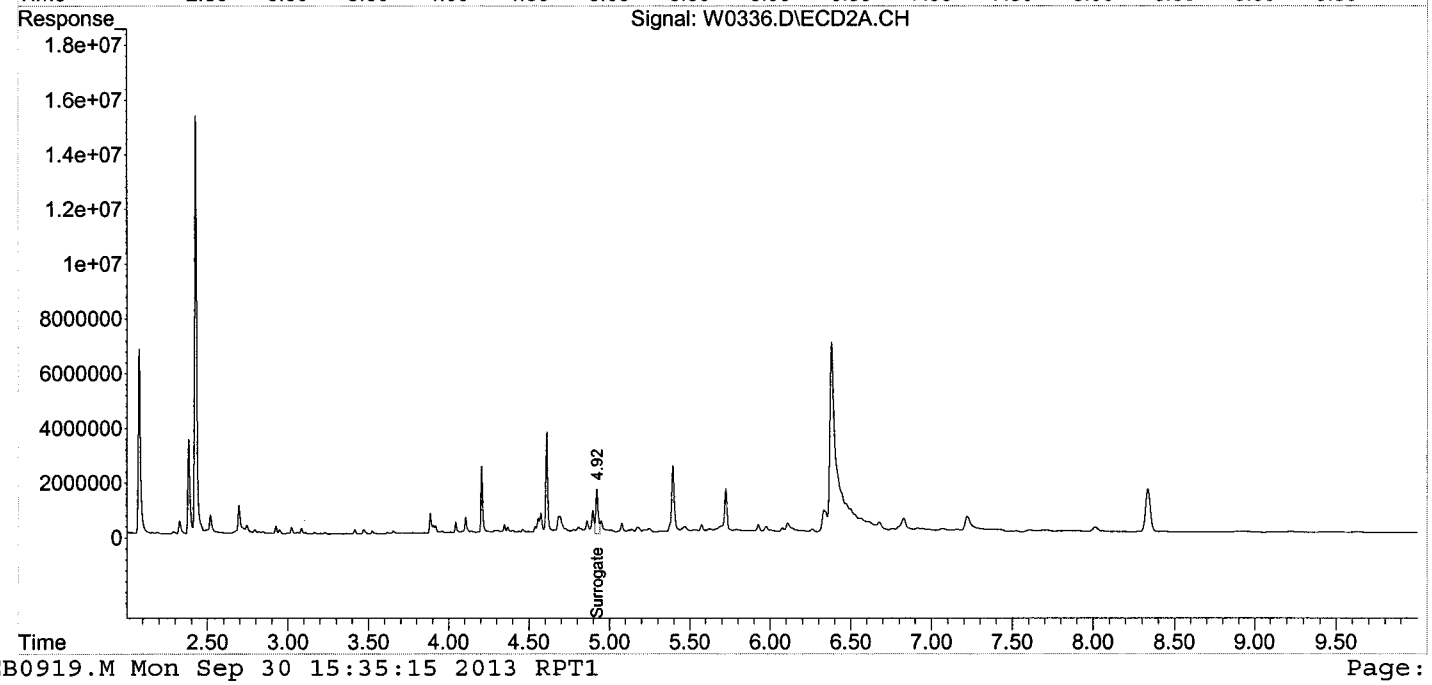
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0336.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 13:14
Operator : JS
Sample : AOC-12-2/3,09197-009,S,15.00g,14.0,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:35:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0337.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 13:28
Operator : JS
Sample : AOC-6/18.5,09197-010,S,15.80g,17.7,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:52:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.73	4.92	132.4E6	17258860	66.714	65.184
Spiked Amount 100.000			Recovery	=	66.71%	65.18%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

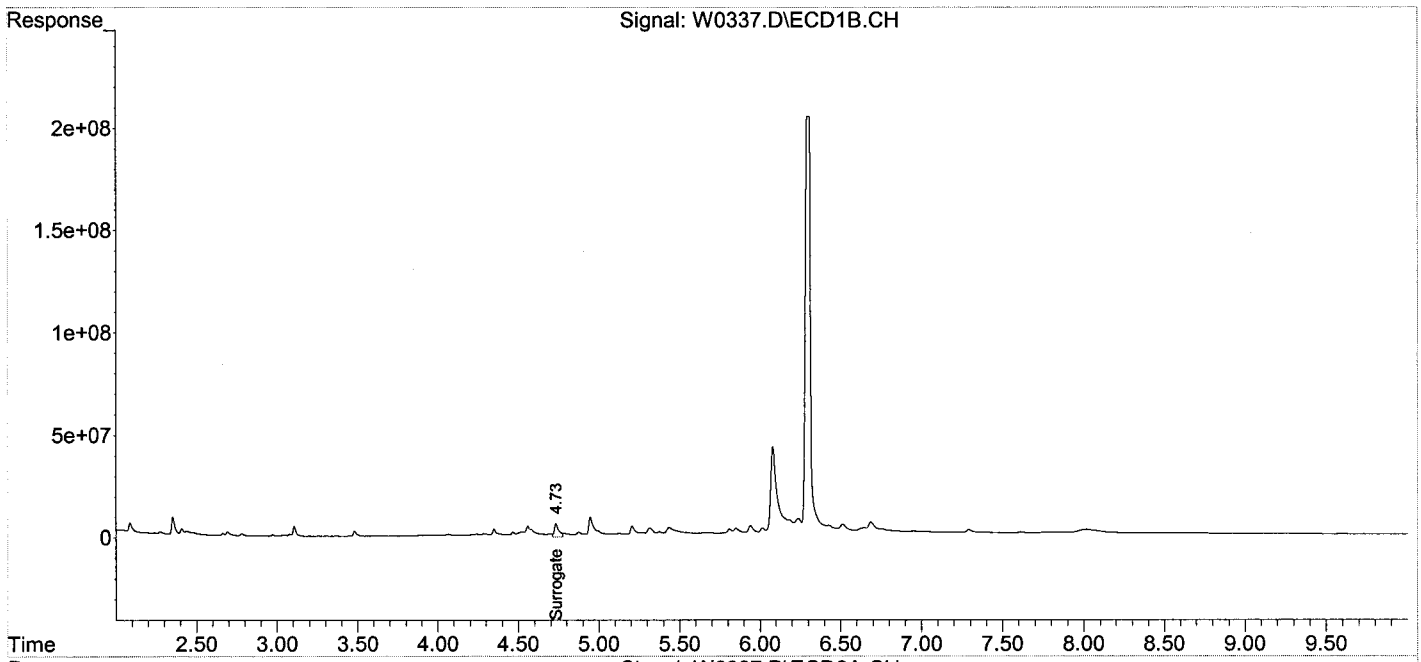
E13-09197 0339

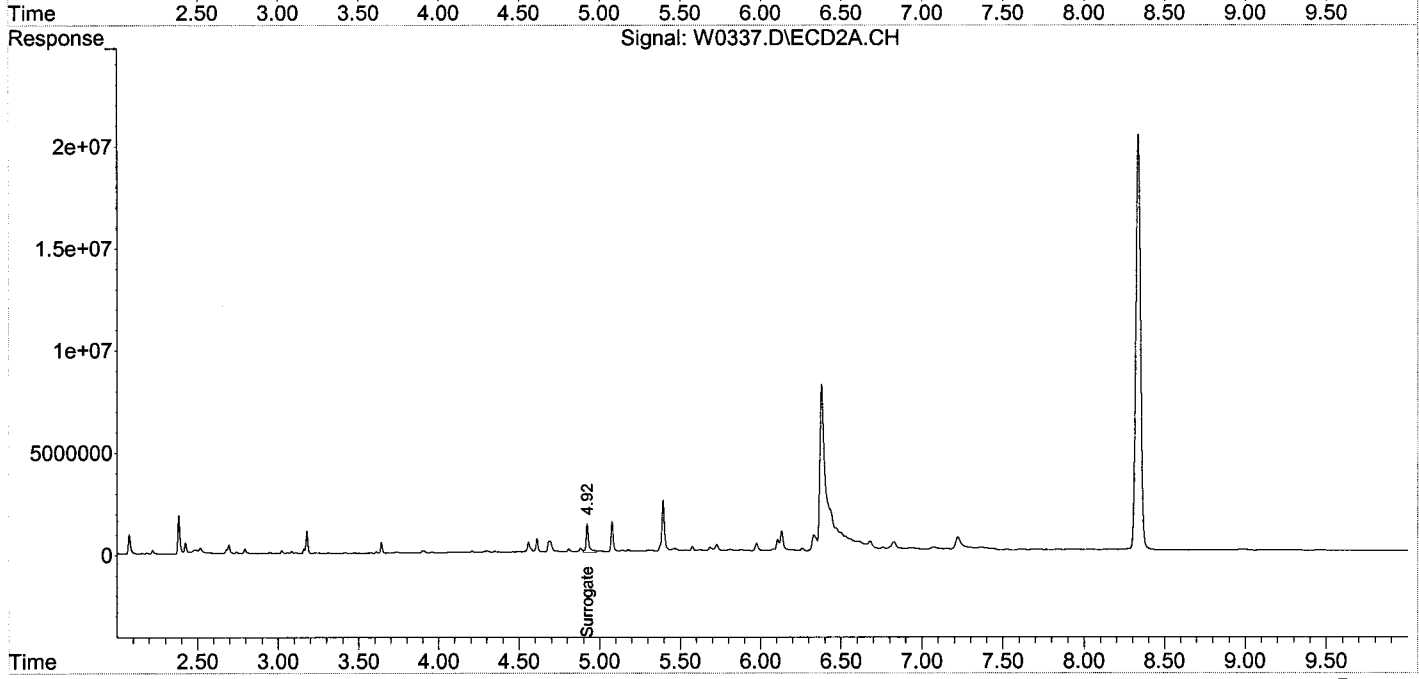
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0337.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 13:28
Operator : JS
Sample : AOC-6/18.5,09197-010,S,15.80g,17.7,09/26/13,1
Misc : 130926-05,09/17/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 13:52:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKS130926-05
Client ID: Herb
Date Received: NA
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0323.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.00835	0.00334
Dicamba	ND		0.00835	0.00334
2,4-D	ND		0.00835	0.00334
2,4,5-TP (Silvex)	ND		0.00835	0.00334
2,4,5-T	ND		0.00835	0.00334
2,4-DB	ND		0.00835	0.00334
Dinoseb	ND		0.00835	0.00334

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0323.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 9:43
Operator : JS
Sample : Herb,BLKS130926-05,S,30.00g,0,09/26/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 11:00:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.93	169.9E6	22571957	85.623	85.251
Spiked Amount 100.000			Recovery	=	85.62%	85.25%
Target Compounds						

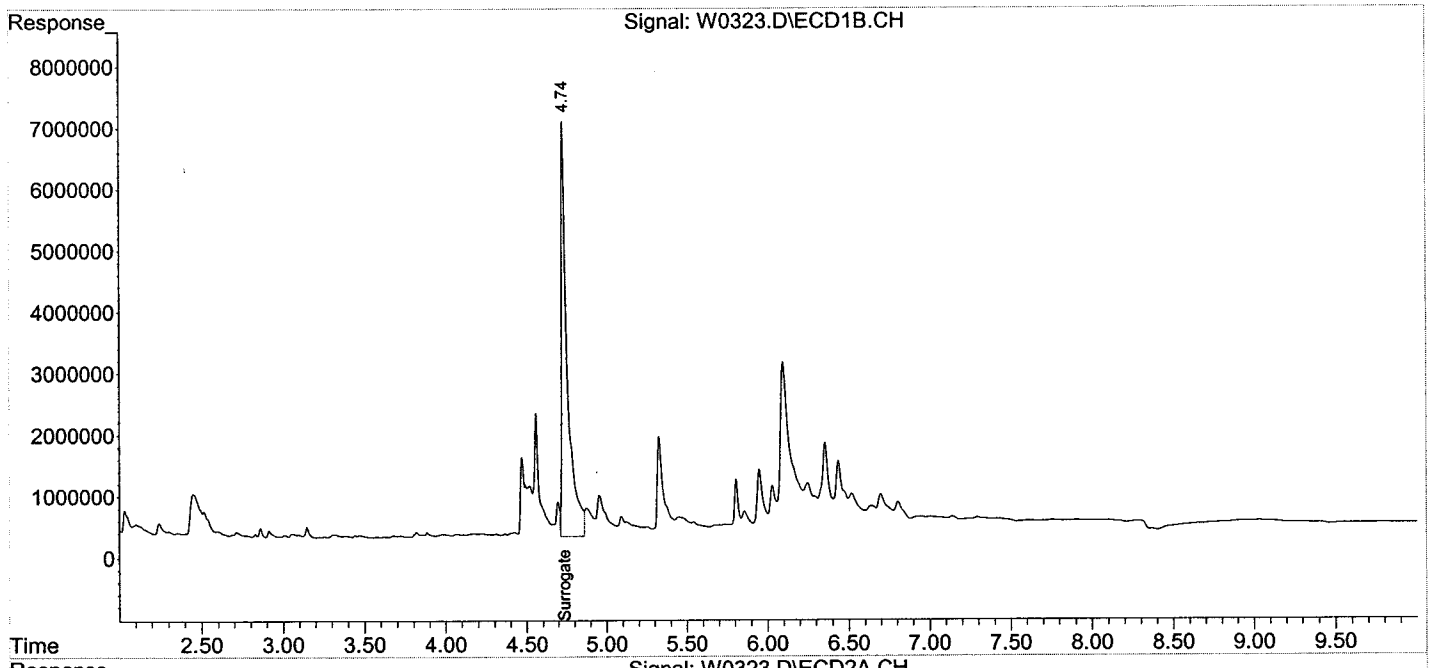
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

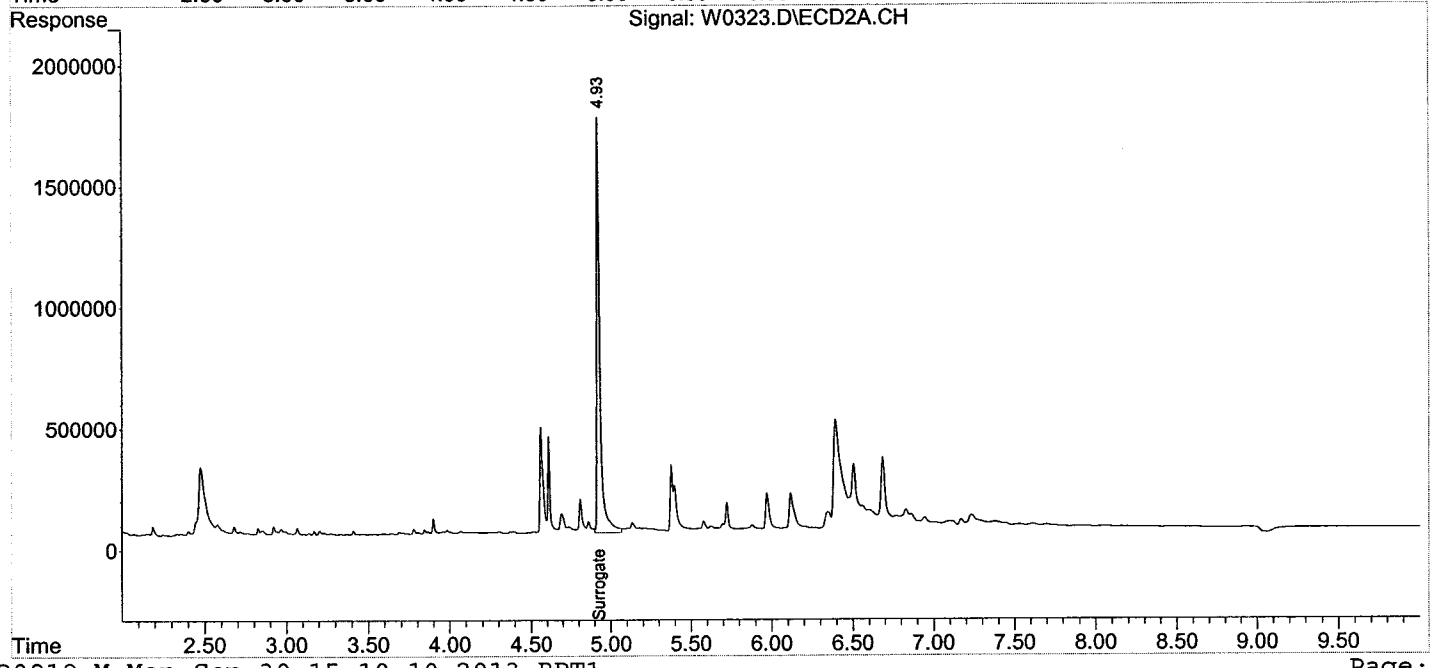
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0323.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 9:43
Operator : JS
Sample : Herb,BLKS130926-05,S,30.00g,0,09/26/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 11:00:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





EXTRACTABLE PETROLEUM HYDROCARBON

EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH-C40 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Client ID	Lab Sample ID	Matrix	COD % rec	#	OTP % rec	#
NJ-EPH-C	BLKS130919-06	SOIL	74		75	
NJ-EPH-C	LCSS130919-06	SOIL	90		93	
NJ-EPH-C	LCSDS130919-06	SOIL	89		91	
AOC-2-1/	09135-001	SOIL	68		74	
AOC-2-2/	09135-002	SOIL	56		56	
AOC-2-3/	09135-003	SOIL	69		87	
C-1_WARE	09196-001	SOLID	66		76	
AOC-8/12	09197-007	SOIL	65		69	
AOC-12-1	09197-008	SOIL	74		81	
AOC-12-2	09197-009	SOIL	53		61	
AOC-12-3	09198-003	SOIL	80		86	
AOC-12-4	09198-004	SOIL	80		86	
AOC-12-4	09198-4D	SOIL	81		88	
NJ-EPH-C	09198-004MS	SOIL	76		78	
AOC-4/7.	09135-005	SOIL	63		67	
AOC-7-1/	09197-003	SOIL	66		72	
AOC-6/18	09197-010	SOIL	54		57	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130919-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0809.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	100	0.00	36	36	35	35	3
n-Decane (C10)	100	0.00	55	55	55	55	0
n-Dodecane (C12)	100	0.00	72	72	71	71	1
n-Tetradecane (C14)	100	0.00	80	80	78	78	3
n-Hexadecane (C16)	100	0.00	88	88	87	87	1
n-Octadecane (C18)	100	0.00	117	117	117	117	0
n-Eicosane (C20)	100	0.00	92	92	91	91	1
n-Heneicosane (C21)	100	0.00	112	112	115	115	3
n-Docosane (C22)	100	0.00	98	98	96	96	2
n-Tetracosane (C24)	100	0.00	92	92	90	90	2
n-Hexacosane (C26)	100	0.00	94	94	93	93	1
n-Octacosane (C28)	100	0.00	96	96	88	88	9
n-Triacontane (C30)	100	0.00	92	92	91	91	1
n-Dotriacontane (C32)	100	0.00	87	87	86	86	1
n-Tetratriacontane (C34)	100	0.00	86	86	84	84	2
n-Hexatriacontane (C36)	100	0.00	70	70	68	68	3
n-Octatriacontane (C38)	100	0.00	61	61	59	59	3
n-Tetracontane (C40)	100	0.00	58	58	56	56	4
C9-C40*	3600	0.00	3202	89	3157	88	1

*Includes Aromatic Compounds

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09198-004MS
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0823.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.6

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS
n-Nonane (C9)	100	0.00	32	32
n-Decane (C10)	100	0.00	48	48
n-Dodecane (C12)	100	0.00	60	60
n-Tetradecane (C14)	100	0.00	66	66
n-Hexadecane (C16)	100	0.00	72	72
n-Octadecane (C18)	100	0.00	92	92
n-Eicosane (C20)	100	0.00	76	76
n-Heneicosane (C21)	100	0.00	94	94
n-Docosane (C22)	100	0.00	80	80
n-Tetracosane (C24)	100	0.00	74	74
n-Hexacosane (C26)	100	0.00	76	76
n-Octacosane (C28)	100	0.00	76	76
n-Triacontane (C30)	100	0.00	74	74
n-Dotriacontane (C32)	100	0.00	71	71
n-Tetratriacontane (C34)	100	0.00	72	72
n-Hexatriacontane (C36)	100	0.00	60	60
n-Octatriacontane (C38)	100	0.00	49	49
n-Tetracontane (C40)	100	0.00	46	46
C9-C40*	3600	264.26	2700	68

*Includes Aromatic Compounds

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: AOC-12-4
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Lab ID: 09198-004
Sample wt/vol: 10.0g
Date Analyzed: 09/24/2013
Aliphatics Sample Data file: Z0821.D
Dilution Factor: 1

GC Column: RTX-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 19.6
Lab ID: 09198-4D
Sample wt/vol: 10.0g
Date Analyzed: 09/24/2013
Aliphatics Sample Dup Data file: Z0822.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C40	32.9	33.6	2

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NC Not calculable

NJ-EPH-C40 METHOD BLANK SUMMARY

Lab File ID: Z0807.D

Instrument ID: GC-Z

Date Extracted: 09/19/2013

Matrix: SOIL

Date Analyzed: 09/23/2013

Time Analyzed: 23:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
NJ-EPH-C	LCSS130919-06	09/23/2013	23:43
NJ-EPH-C	LCSDS130919-06	09/24/2013	00:05
AOC-2-1/	09135-001	09/24/2013	00:28
AOC-2-2/	09135-002	09/24/2013	00:50
AOC-2-3/	09135-003	09/24/2013	01:12
C-1_WARE	09196-001	09/24/2013	01:57
AOC-8/12	09197-007	09/24/2013	02:41
AOC-12-1	09197-008	09/24/2013	03:03
AOC-12-2	09197-009	09/24/2013	03:25
AOC-12-3	09198-003	09/24/2013	04:09
AOC-12-4	09198-004	09/24/2013	04:31
AOC-12-4	09198-4D	09/24/2013	04:54
NJ-EPH-C	09198-004MS	09/24/2013	05:16
AOC-4/7.	09135-005	09/24/2013	10:37
AOC-7-1/	09197-003	09/24/2013	10:59
AOC-6/18	09197-010	09/24/2013	11:22

NJ-EPH-C40 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Z **Column:** RTX-5

Surrogate RT from initial calibration :

COD 8.10 **OTP** 6.40

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#	OTP RT	#
NJ-EPH-C	BLKS130919-06	09/23/2013	23:21	8.10		6.40	
NJ-EPH-C	LCSS130919-06	09/23/2013	23:43	8.09		6.39	
NJ-EPH-C	LCSDS130919-06	09/24/2013	00:05	8.09		6.39	
AOC-2-1/	09135-001	09/24/2013	00:28	8.10		6.40	
AOC-2-2/	09135-002	09/24/2013	00:50	8.11		6.40	
AOC-2-3/	09135-003	09/24/2013	01:12	8.09		6.39	
C-1_WARE	09196-001	09/24/2013	01:57	8.09		6.39	
AOC-8/12	09197-007	09/24/2013	02:41	8.10		6.40	
AOC-12-1	09197-008	09/24/2013	03:03	8.09		6.39	
AOC-12-2	09197-009	09/24/2013	03:25	8.09		6.39	
AOC-12-3	09198-003	09/24/2013	04:09	8.09		6.39	
AOC-12-4	09198-004	09/24/2013	04:31	8.09		6.39	
AOC-12-4	09198-4D	09/24/2013	04:54	8.09		6.39	
NJ-EPH-C	09198-004MS	09/24/2013	05:16	8.09		6.39	
AOC-4/7.	09135-005	09/24/2013	10:37	8.10		6.40	
AOC-7-1/	09197-003	09/24/2013	10:59	8.09		6.40	
AOC-6/18	09197-010	09/24/2013	11:22	8.10		6.40	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0828.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:59
Operator : WP
Sample : AOC-7-1/,09197-003,S,10.48g,15.4,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 11:32:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	9781517	65.717 ng
Spiked Amount 100.000		Recovery =	65.72%
23) S o-Terphenyl	6.40	20177203	72.283 ng
Spiked Amount 100.000		Recovery =	72.28%
Target Compounds			
22) H C9-C40	6.84	88945049	292.523 ng

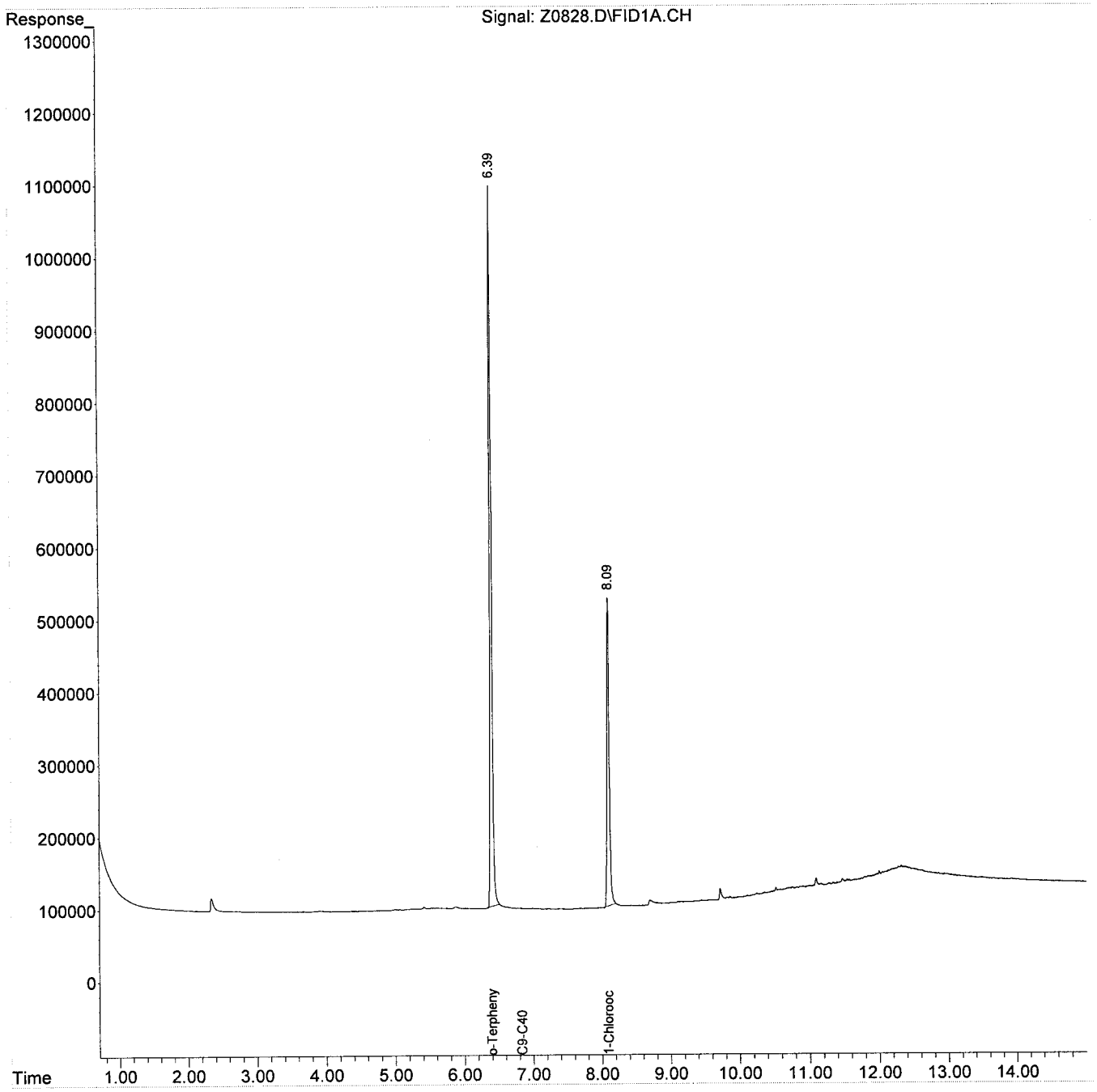
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0828.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:59
Operator : WP
Sample : AOC-7-1/,09197-003,S,10.48g,15.4,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 11:32:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : Z0816.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 2:41
Operator : WP
Sample : AOC-8/12,09197-007,S,10.37g,17.0,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 29 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 15:38:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.10	9619725	64.630 ng
Spiked Amount 100.000		Recovery =	64.63%
23) S o-Terphenyl	6.40	19277207	69.058 ng
Spiked Amount 100.000		Recovery =	69.06%
Target Compounds			
22) H C9-C40	6.84	62041624	204.043 ng

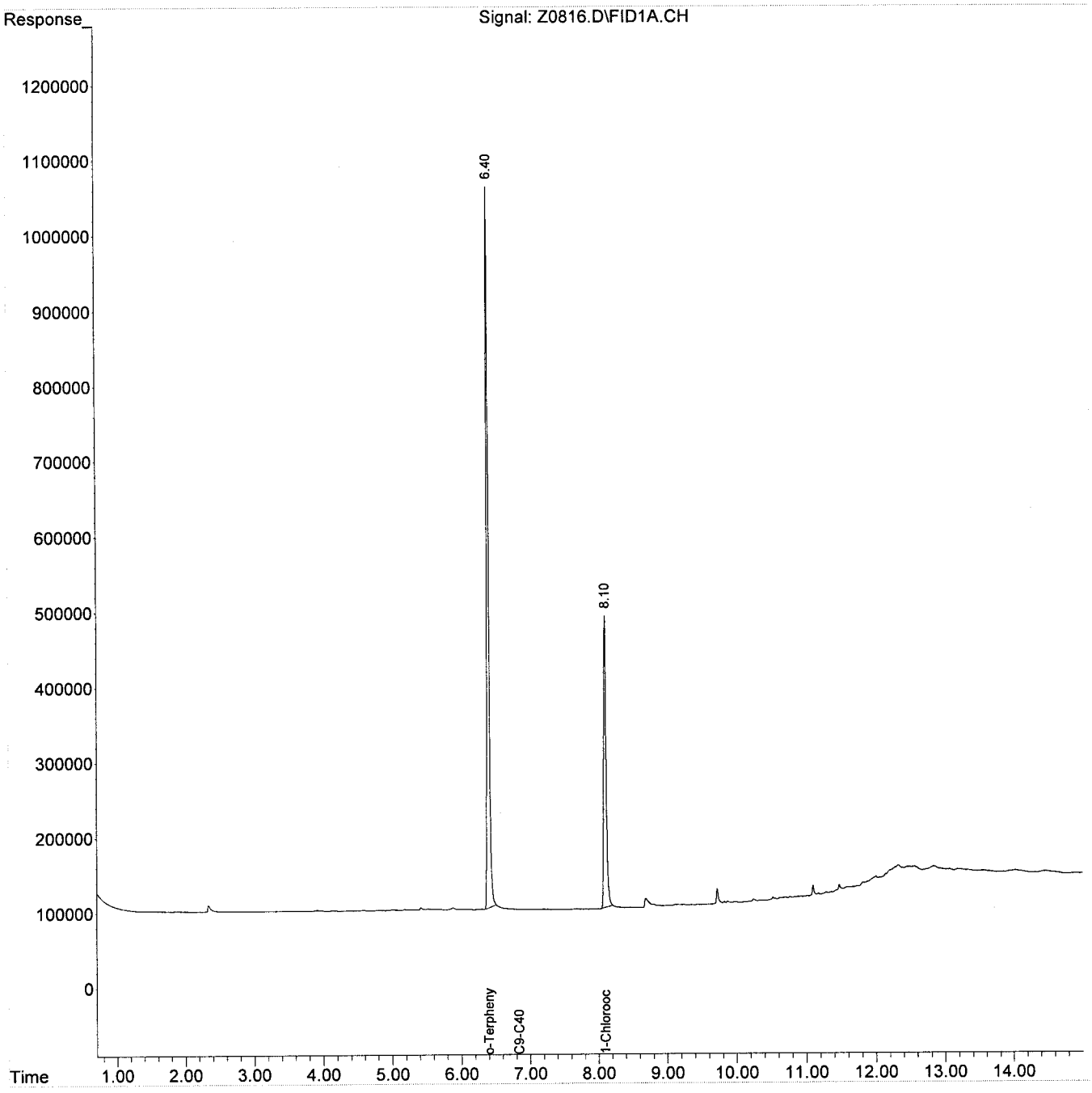
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : Z0816.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 2:41
Operator : WP
Sample : AOC-8/12,09197-007,S,10.37g,17.0,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 29 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 15:38:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0817.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 3:03
Operator : WP
Sample : AOC-12-1,09197-008,S,10.21g,15.9,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:06:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	10948109	73.555 ng
Spiked Amount 100.000		Recovery =	73.56%
23) S o-Terphenyl	6.39	22581266	80.895 ng
Spiked Amount 100.000		Recovery =	80.89%
Target Compounds			
22) H C9-C40	6.84	136030053	447.377 ng

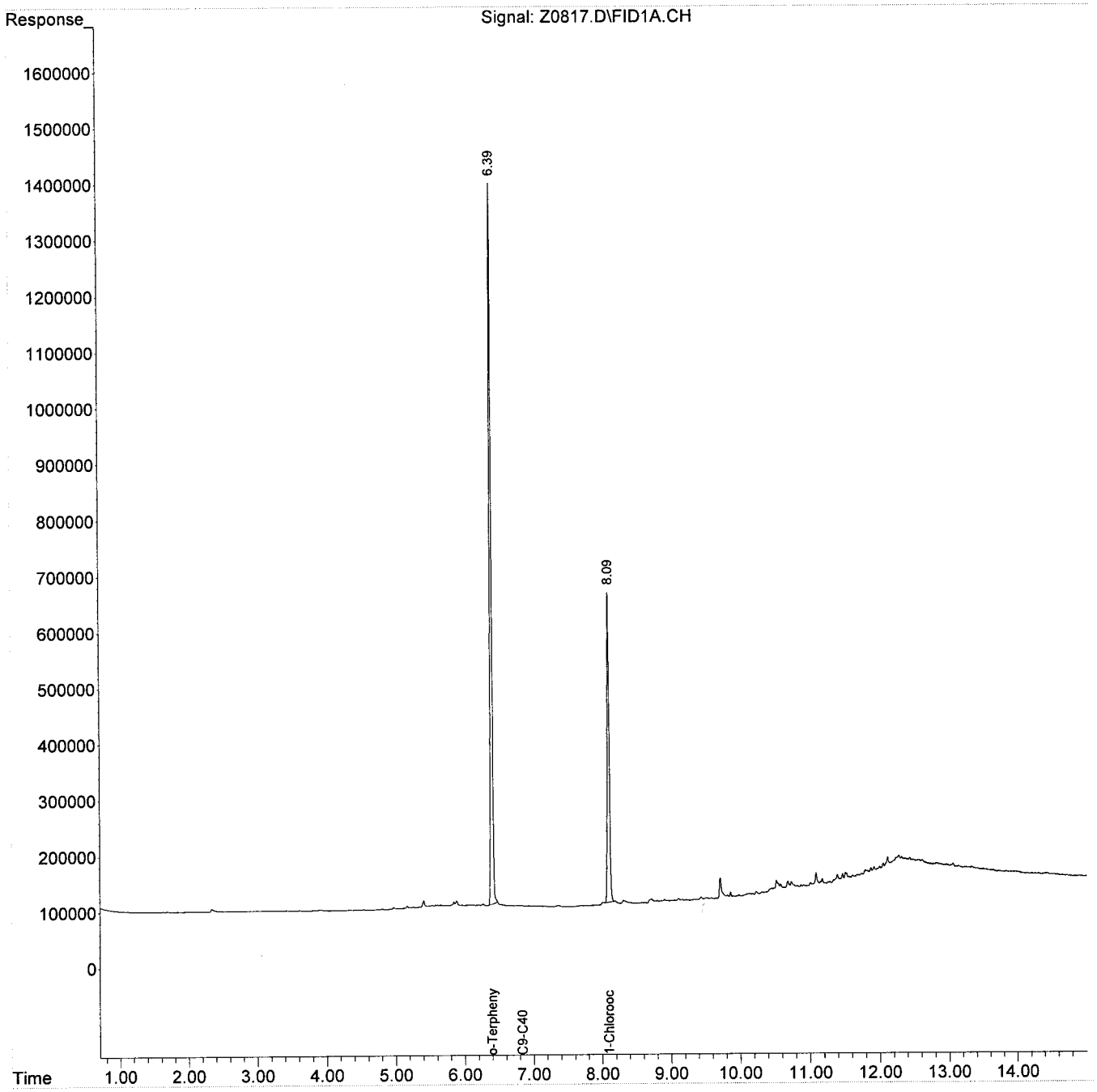
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0817.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 3:03
Operator : WP
Sample : AOC-12-1,09197-008,S,10.21g,15.9,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:06:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0818.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 3:25
Operator : WP
Sample : AOC-12-2,09197-009,S,10.05g,14.0,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:07:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	7944575	53.376 ng
Spiked Amount 100.000		Recovery =	53.38%
23) S o-Terphenyl	6.39	16915921	60.599 ng
Spiked Amount 100.000		Recovery =	60.60%
Target Compounds			
22) H C9-C40	6.84	393351038	1293.657 ng

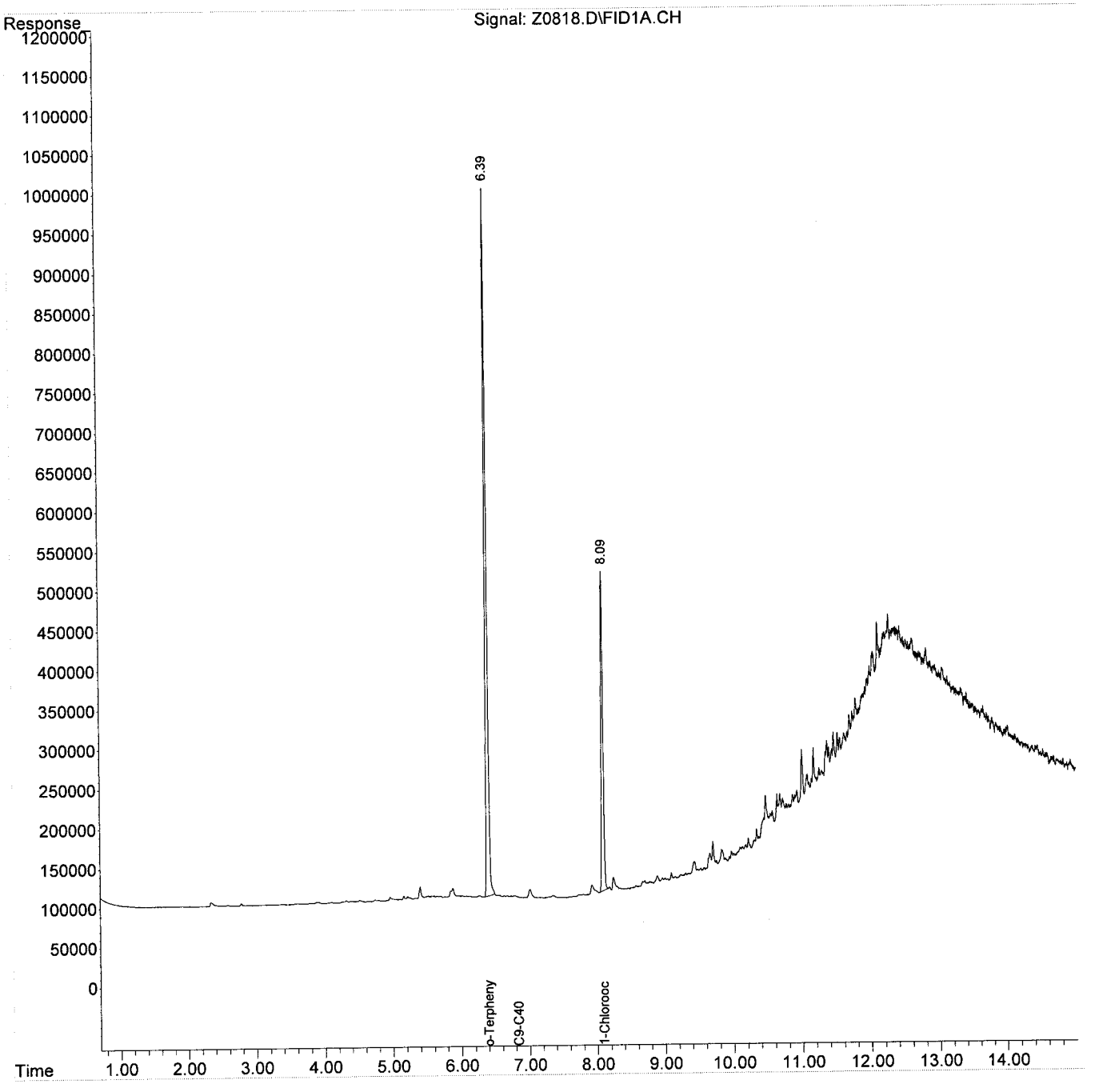
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0818.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 3:25
Operator : WP
Sample : AOC-12-2,09197-009,S,10.05g,14.0,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:07:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0829.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:22
Operator : WP
Sample : AOC-6/18,09197-010,S,10.42g,17.7,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 11:51:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.10	8085898	54.325	ng	m
Spiked Amount 100.000		Recovery =	54.33%		
23) S o-Terphenyl	6.40	16035413	57.445	ng	
Spiked Amount 100.000		Recovery =	57.45%		
Target Compounds					

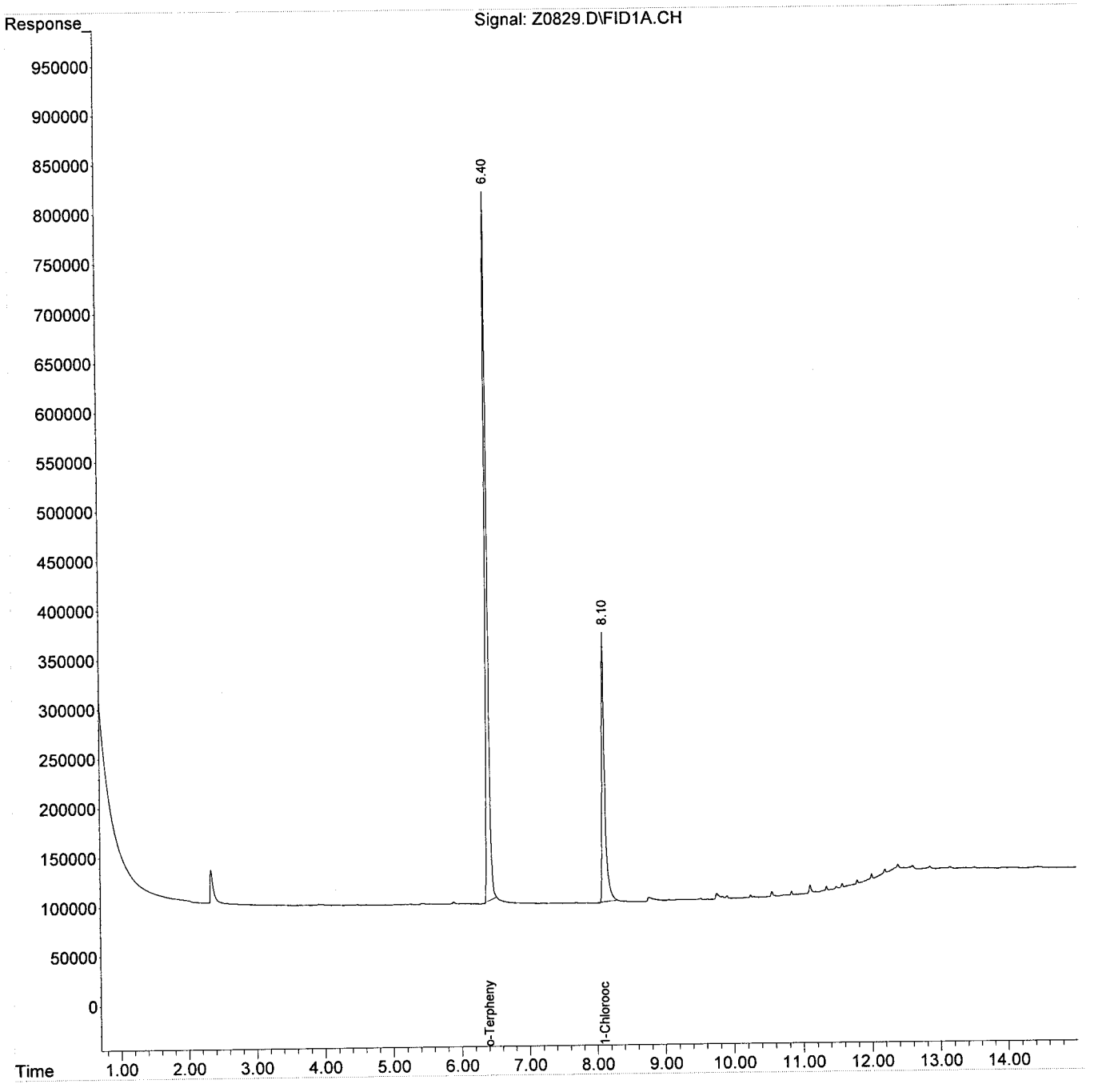
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0829.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:22
Operator : WP
Sample : AOC-6/18,09197-010,S,10.42g,17.7,09/19/13,1
Misc : 130919-06,09/17/13,09/18/13,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 11:51:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2013

Instrument ID: GC-Z

GC Column : RTX-5

Data File: Z0620.D Z0619.D Z0618.D Z0617.D Z0616.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	0.86	0.85	0.85	0.85	0.86	0.85	0.77	0.92
n-Decane (C10)	1.48	1.48	1.48	1.48	1.49	1.48	1.40	1.55
n-Dodecane (C12)	2.86	2.86	2.86	2.86	2.87	2.86	2.78	2.93
n-Tetradecane (C14)	3.99	3.98	3.98	3.99	4.00	3.99	3.91	4.06
n-Hexadecane (C16)	4.95	4.95	4.95	4.95	4.96	4.95	4.87	5.03
n-Octadecane (C18)	5.85	5.84	5.85	5.86	5.87	5.85	5.77	5.93
n-Eicosane (C20)	7.37	7.37	7.38	7.40	7.44	7.39	7.31	7.47
n-Heneicosane (C21)	8.20	8.21	8.21	8.23	8.25	8.22	8.14	8.30
n-Docosane (C22)	8.72	8.72	8.72	8.73	8.75	8.73	8.64	8.82
n-Tetracosane (C24)	9.44	9.44	9.44	9.45	9.46	9.44	9.35	9.53
n-Hexacosane (C26)	9.99	9.99	9.99	10.00	10.01	9.99	9.90	10.08
n_Octacosane (C28)	10.45	10.46	10.46	10.47	10.48	10.46	10.37	10.55
n-Triacontane (C30)	10.87	10.88	10.88	10.89	10.90	10.88	10.78	10.98
n-Dotriacontane (C32)	11.26	11.26	11.27	11.28	11.29	11.27	11.17	11.37
n-Tetratriacontane (C34)	11.62	11.62	11.63	11.64	11.65	11.63	11.53	11.73
n-Hexatriacontane (C36)	11.96	11.96	11.97	11.98	11.99	11.97	11.82	12.12
n-Octatriacontane (C38)	12.28	12.28	12.29	12.30	12.31	12.29	12.14	12.44
n-Tetracontane (C40)	12.63	12.63	12.64	12.65	12.66	12.64	12.49	12.79
C9-C28	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
C28-C40	11.88	11.88	11.88	11.88	11.88	11.88	11.78	11.98
C9-C40	6.84	6.84	6.84	6.84	6.84	6.84	6.73	6.95

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2013

Instrument ID: GC-Z

GC Column : RTX-5

Data File: Z0620.D Z0619.D Z0618.D Z0617.D Z0616.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	20	100	250	500	1000		
n-Nonane (C9)	283469	245781	222628	213600	217524	236600	12.27
n-Decane (C10)	284948	250794	228937	219888	228292	242572	10.84
n-Dodecane (C12)	283254	254479	235619	228350	239954	248331	8.75
n-Tetradecane (C14)	292958	262233	244940	238899	250465	257899	8.30
n-Hexadecane (C16)	302525	271076	253476	247523	258100	266540	8.22
n-Octadecane (C18)	312599	278729	259633	254502	262169	273526	8.65
n-Eicosane (C20)	317842	283764	259515	260050	257329	275700	9.40
n-Heneicosane (C21)	315116	271746	241001	233058	244199	261024	12.86
n-Docosane (C22)	329225	295970	273388	265763	268724	286614	9.29
n-Tetracosane (C24)	328859	295249	275407	261788	263997	285060	9.77
n-Hexacosane (C26)	328174	288501	273451	258892	259561	281716	10.17
n_Octacosane (C28)	330600	291048	275549	256309	257315	282164	10.86
n-Triacontane (C30)	338690	294816	279665	255849	257557	285316	11.90
n-Dotriacontane (C32)	333280	291183	274861	249976	253652	280590	12.06
n-Tetratriacontane (C34)	320479	277464	264881	240627	246381	269967	11.79
n-Hexatriacontane (C36)	314407	271459	260404	237421	245147	265768	11.38
n-Octatriacontane (C38)	297370	257792	248667	228759	237574	254032	10.47
n-Tetracontane (C40)	279614	244758	237511	219258	230211	242270	9.45
C9-C28	4559425	3682120	3250834	3069901	3094548	3531366	17.70
C28-C40	2259469	1761685	1623431	1464425	1493221	1720446	18.81
C9-C40	7417756	5722863	5001746	4603079	4620417	5473172	21.52

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0616.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:07
Operator : WP
Sample : ALI_L5_IAS_4645,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.13	140246830	942.252 ng
Spiked Amount	100.000		Recovery =	942.25%
23) S	o-Terphenyl	6.45	288610193	1033.913 ng
Spiked Amount	100.000		Recovery =	1033.91%
	Target Compounds			
2) T	n-Nonane (C9)	0.86	217524124	919.373 ng
3) T	n-Decane (C10)	1.49	228292064	941.132 ng
4) T	n-Dodecane (C12)	2.87	239953574	966.263 ng
5) T	n-Tetradecane (C14)	4.00	250464772	971.174 ng
6) T	n-Hexadecane (C16)	4.96	258099669	968.334 ng
7) T	n-Octadecane (C18)	5.87	262168727	958.477 ng
8) T	n-Eicosane (C20)	7.44	257328521	924.234 ng
9) T	n-Heneicosane (C21)	8.25	244199263	935.544 ng
10) T	n-Docosane (C22)	8.75	268723745	937.580 ng
11) T	n-Tetracosane (C24)	9.46	263997388	926.112 ng
12) T	n-Hexacosane (C26)	10.01	259560758	921.357 ng
13) T	n-Octacosane (C28)	10.48	257314862	911.933 ng
14) T	n-Triacontane (C30)	10.90	257557472	902.711 ng
15) T	n-Dotriacontane (C32)	11.29	253652207	903.995 ng
16) T	n-Tetratriacontane (C34)	11.65	246381122	912.636 ng
17) T	n-Hexatriacontane (C36)	11.99	245147189	922.412 ng
18) T	n-Octatriacontane (C38)	12.31	237574292	935.212 ng
19) T	n-Tetracontane (C40)	12.66	230210677	950.223 ng
20) H	C9-C28	5.03	3094547500	10515.845 ng
21) H	C28-C40	11.88	1493220787	5207.559 ng
22) H	C9-C40	6.84	4620416589	15195.676 ng

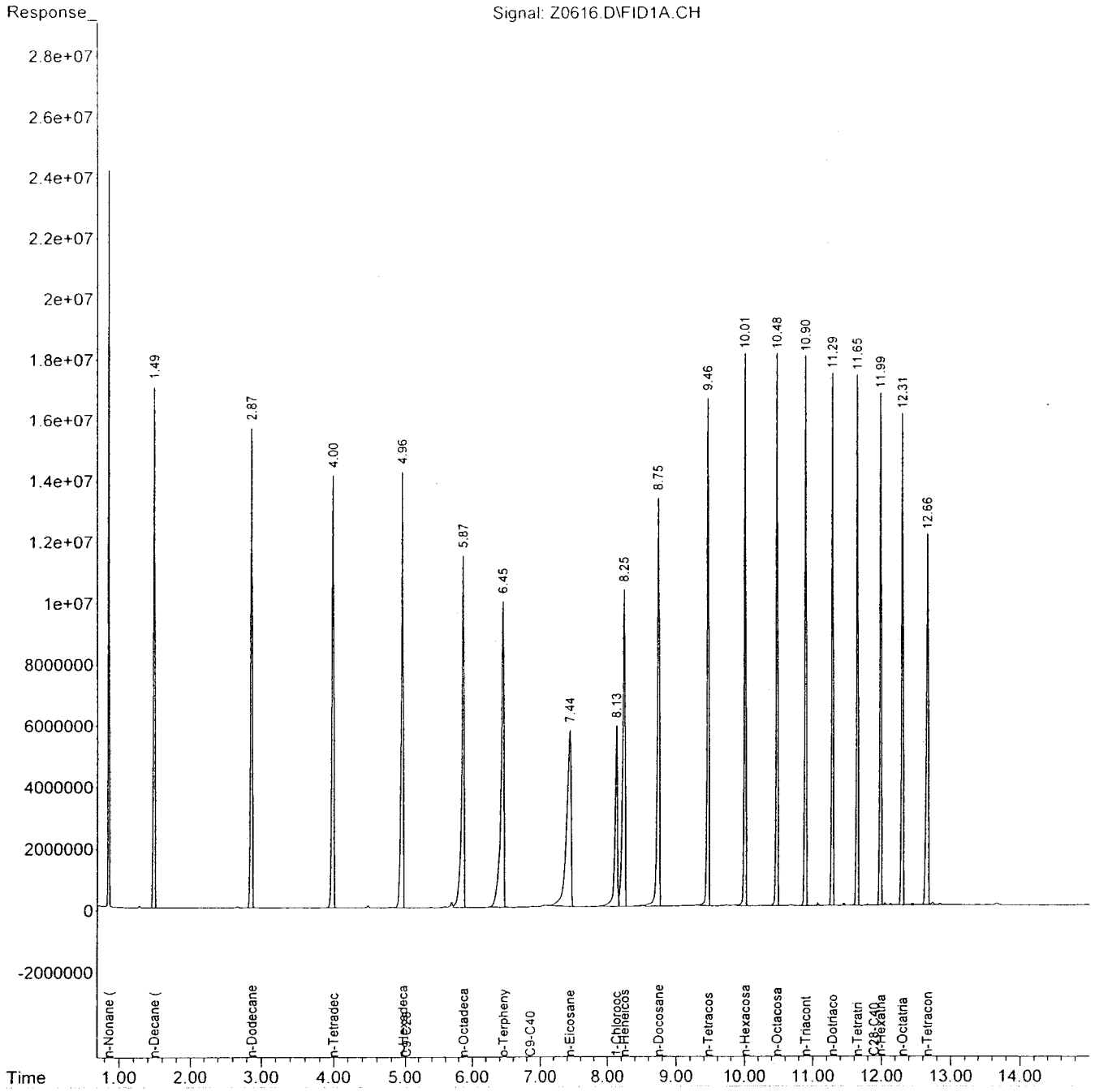
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0616.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:07
Operator : WP
Sample : ALI_L5_IAS_4645,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0617.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:30
Operator : WP
Sample : ALI_L4_IAS_4646,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	8.12	72120252	484.542 ng
Spiked Amount	100.000		Recovery =	484.54%
23)	S o-Terphenyl	6.43	128882295	461.706 ng
Spiked Amount	100.000		Recovery =	461.71%
	Target Compounds			
2)	T n-Nonane (C9)	0.85	106799947	451.394 ng
3)	T n-Decane (C10)	1.48	109943930	453.243 ng
4)	T n-Dodecane (C12)	2.86	114175203	459.769 ng
5)	T n-Tetradecane (C14)	3.99	119449442	463.164 ng
6)	T n-Hexadecane (C16)	4.95	123761567	464.327 ng
7)	T n-Octadecane (C18)	5.86	127251100	465.224 ng
8)	T n-Eicosane (C20)	7.40	130024951	467.004 ng
9)	T n-Heneicosane (C21)	8.23	116528751	446.429 ng
10)	T n-Docosane (C22)	8.73	132881646	463.626 ng
11)	T n-Tetracosane (C24)	9.45	130893980	459.180 ng
12)	T n-Hexacosane (C26)	10.00	129446099	459.492 ng
13)	T n-Octacosane (C28)	10.47	128154299	454.184 ng
14)	T n-Triacontane (C30)	10.89	127924561	448.361 ng
15)	T n-Dotriacontane (C32)	11.28	124988026	445.447 ng
16)	T n-Tetratriacontane (C34)	11.64	120313584	445.661 ng
17)	T n-Hexatriacontane (C36)	11.98	118710568	446.671 ng
18)	T n-Octatriacontane (C38)	12.30	114379294	450.255 ng
19)	T n-Tetracontane (C40)	12.65	109628760	452.506 ng
20)	H C9-C28	5.03	1534950577	5216.046 ng
21)	H C28-C40	11.88	732212543	2553.568 ng
22)	H C9-C40	6.84	2301539361	7569.327 ng

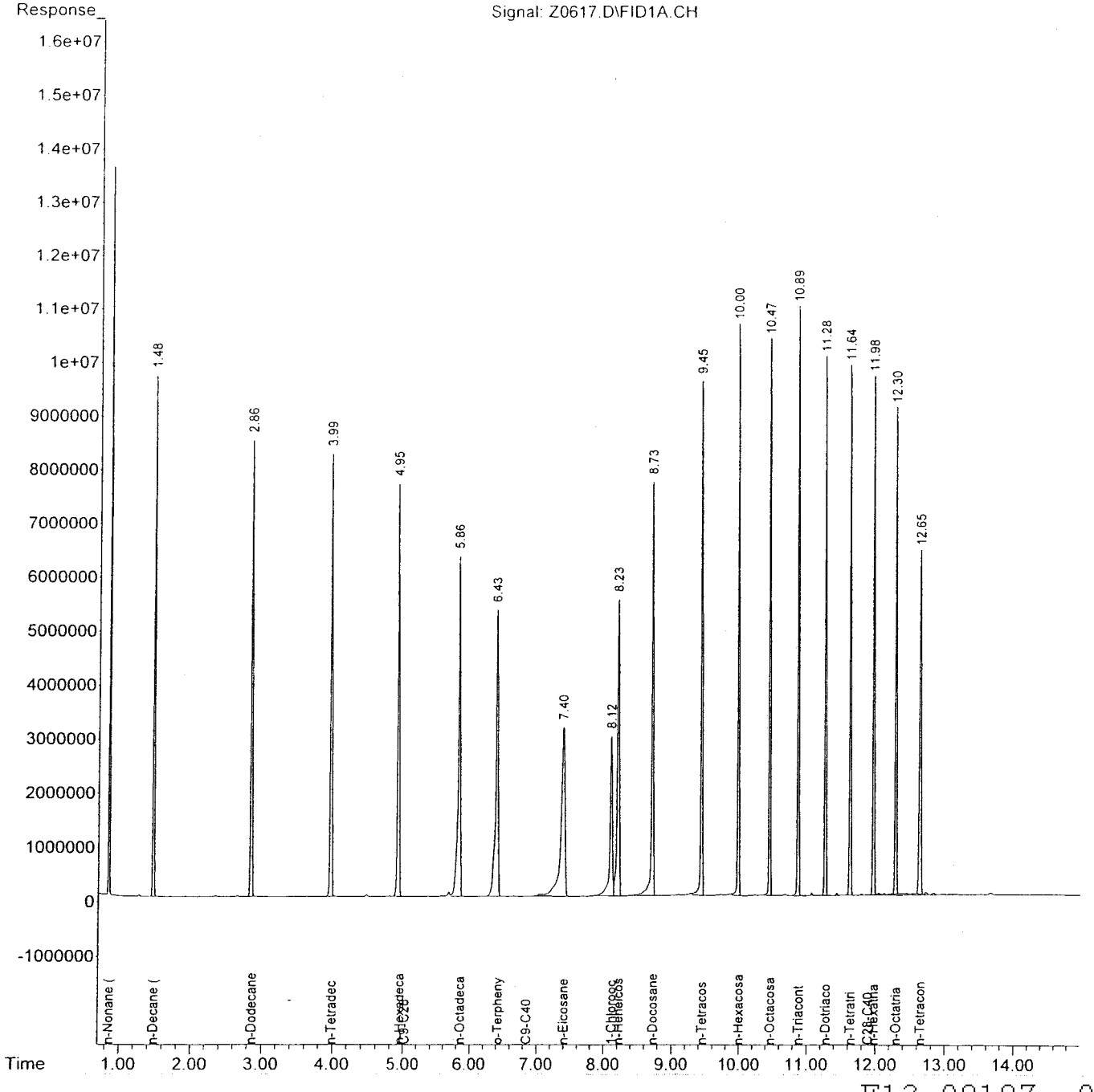
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0617.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:30
Operator : WP
Sample : ALI_L4_IAS_4646,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0618.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:52
Operator : WP
Sample : ALI_L3_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.11	37332331	250.818 ng
Spiked Amount 100.000		Recovery =	250.82%
23) S o-Terphenyl	6.42	65723796	235.448 ng
Spiked Amount 100.000		Recovery =	235.45%
Target Compounds			
2) T n-Nonane (C9)	0.85	55657073	235.237 ng
3) T n-Decane (C10)	1.48	57234368	235.948 ng
4) T n-Dodecane (C12)	2.86	58904859	237.203 ng
5) T n-Tetradecane (C14)	3.98	61235033	237.438 ng
6) T n-Hexadecane (C16)	4.95	63368933	237.747 ng
7) T n-Octadecane (C18)	5.85	64908178	237.301 ng
8) T n-Eicosane (C20)	7.38	64878839	233.022 ng
9) T n-Heneicosane (C21)	8.21	60250132	230.822 ng
10) T n-Docosane (C22)	8.72	68347013	238.464 ng
11) T n-Tetracosane (C24)	9.44	68851793	241.534 ng
12) T n-Hexacosane (C26)	9.99	68362768	242.666 ng
13) T n-Octacosane (C28)	10.46	68887137	244.139 ng
14) T n-Triacontane (C30)	10.88	69916366	245.049 ng
15) T n-Dotriacontane (C32)	11.27	68715199	244.895 ng
16) T n-Tetratriacontane (C34)	11.63	66220355	245.291 ng
17) T n-Hexatriacontane (C36)	11.97	65100953	244.954 ng
18) T n-Octatriacontane (C38)	12.29	62166859	244.720 ng
19) T n-Tetracontane (C40)	12.64	59377647	245.089 ng
20) H C9-C28	5.03	812708611	2761.734 ng
21) H C28-C40	11.88	405857748	1415.416 ng
22) H C9-C40	6.84	1250436473	4112.449 ng

(f)=RT Delta > 1/2 Window

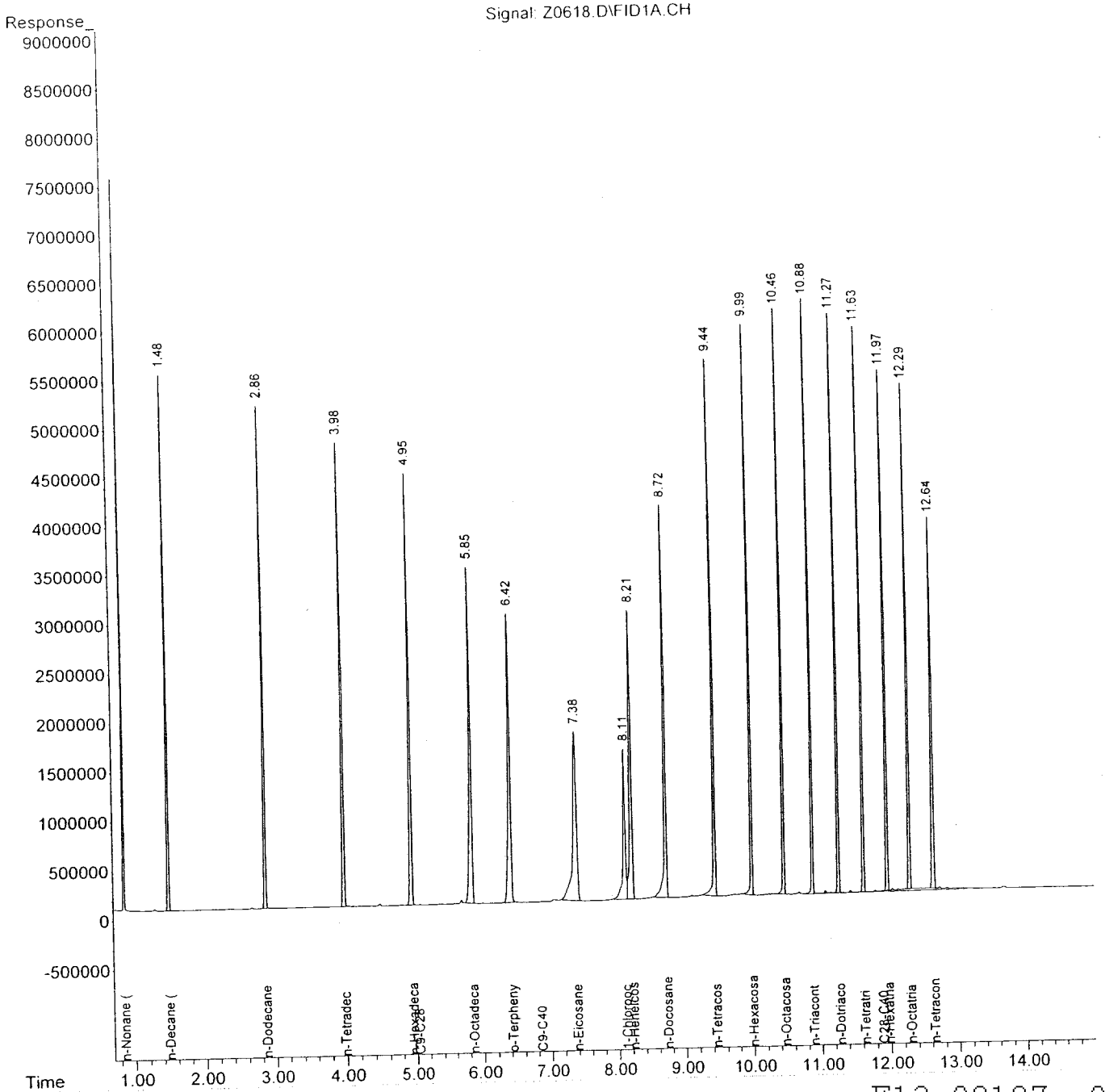
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0618.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:52
Operator : WP
Sample : ALI_L3_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



ZEPH0905.M Fri Sep 13 15:09:16 2013 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0619.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 13:15
Operator : WP
Sample : ALI_L2_IAS_4648,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	8.11	15179352	101.983 ng
	Spiked Amount 100.000		Recovery =	101.98%
23)	S o-Terphenyl	6.41	28154333	100.860 ng
	Spiked Amount 100.000		Recovery =	100.86%
	Target Compounds			
2)	T n-Nonane (C9)	0.85	24578125	103.880 ng
3)	T n-Decane (C10)	1.48	25079424	103.390 ng
4)	T n-Dodecane (C12)	2.86	25447939	102.476 ng
5)	T n-Tetradecane (C14)	3.98	26223292	101.680 ng
6)	T n-Hexadecane (C16)	4.95	27107634	101.702 ng
7)	T n-Octadecane (C18)	5.84	27872933	101.902 ng
8)	T n-Eicosane (C20)	7.37	28376356	101.918 ng
9)	T n-Heneicosane (C21)	8.21	27174616	104.108 ng
10)	T n-Docosane (C22)	8.72	29597040	103.264 ng
11)	T n-Tetracosane (C24)	9.44	29524871	103.574 ng
12)	T n-Hexacosane (C26)	9.99	28850055	102.408 ng
13)	T n-Octacosane (C28)	10.46	29104843	103.149 ng
14)	T n-Triacontane (C30)	10.88	29481620	103.330 ng
15)	T n-Dotriacontane (C32)	11.26	29118262	103.775 ng
16)	T n-Tetratriacontane (C34)	11.62	27746423	102.777 ng
17)	T n-Hexatriacontane (C36)	11.96	27145869	102.141 ng
18)	T n-Octatriacontane (C38)	12.28	25779166	101.480 ng
19)	T n-Tetracontane (C40)	12.63	24475792	101.027 ng
20)	H C9-C28	5.03	368211963	1251.252 ng
21)	H C28-C40	11.88	176168467	614.382 ng
22)	H C9-C40	6.84	572286286	1882.141 ng

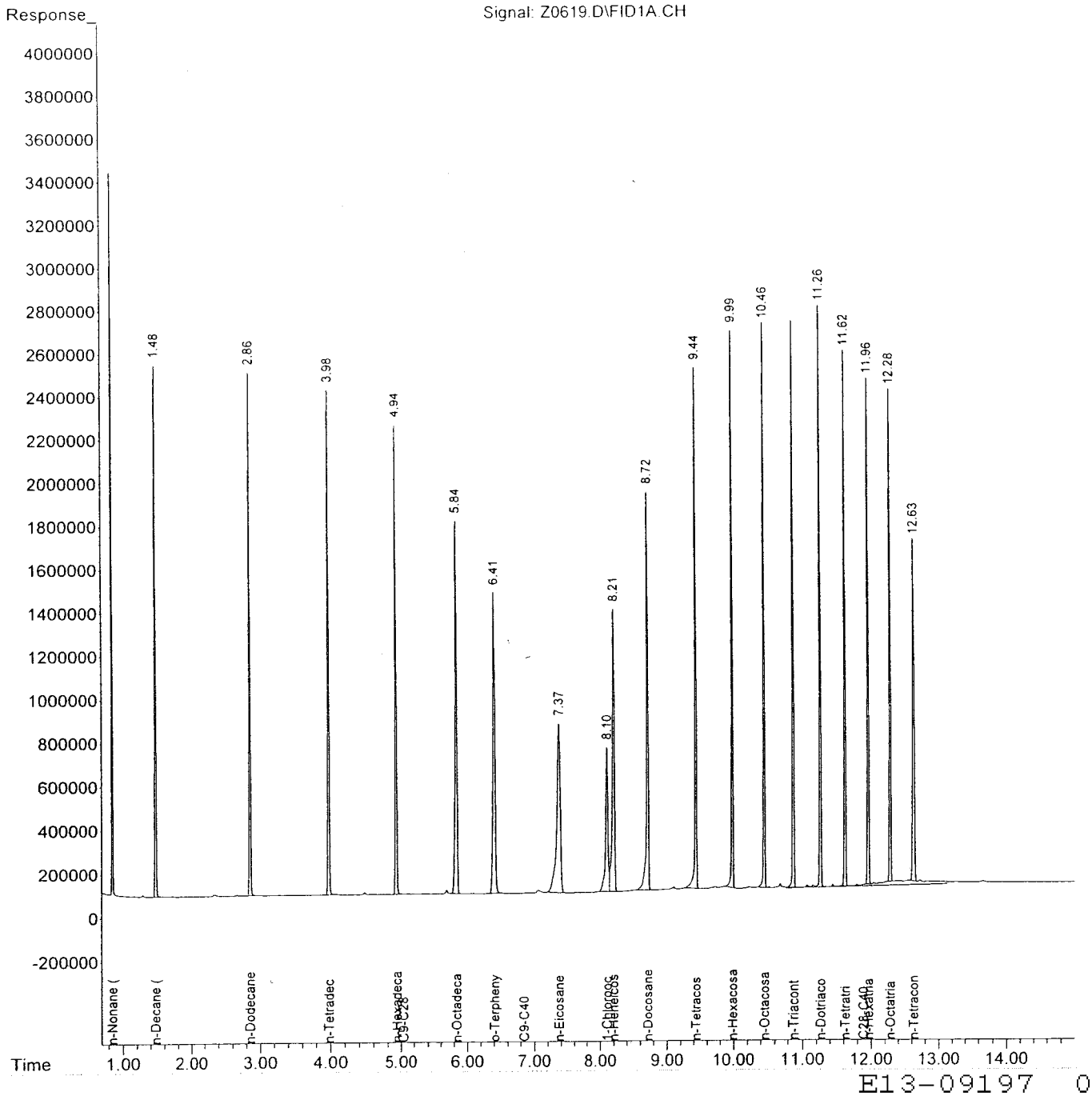
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0619.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 13:15
Operator : WP
Sample : ALI_L2_IAS_4648,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0620.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 21:18
Operator : WP
Sample : ALI_L1_IAS_4649,20_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.11	3165130	21.265 ng
Spiked Amount	100.000		Recovery =	21.27%
23) S	o-Terphenyl	6.42	6098099	21.846 ng
Spiked Amount	100.000		Recovery =	21.85%
	Target Compounds			
2) T	n-Nonane (C9)	0.86	5669379	23.962 ng
3) T	n-Decane (C10)	1.48	5698953	23.494 ng
4) T	n-Dodecane (C12)	2.86	5665085	22.813 ng
5) T	n-Tetradecane (C14)	3.99	5859159	22.719 ng
6) T	n-Hexadecane (C16)	4.95	6050492	22.700 ng
7) T	n-Octadecane (C18)	5.85	6251973	22.857 ng
8) T	n-Eicosane (C20)	7.37	6356836	22.832 ng
9) T	n-Heneicosane (C21)	8.20	6302320	24.145 ng
10) T	n-Docosane (C22)	8.72	6584503	22.973 ng
11) T	n-Tetracosane (C24)	9.44	6577176	23.073 ng
12) T	n-Hexacosane (C26)	9.99	6563484	23.298 ng
13) T	n-Octacosane (C28)	10.45	6612004	23.433 ng
14) T	n-Triacontane (C30)	10.87	6773802	23.741 ng
15) T	n-Dotriacontane (C32)	11.26	6665597	23.756 ng
16) T	n-Tetratriacontane (C34)	11.62	6409576	23.742 ng
17) T	n-Hexatriacontane (C36)	11.96	6288143	23.660 ng
18) T	n-Octatriacontane (C38)	12.28	5947409	23.412 ng
19) T	n-Tetracontane (C40)	12.63	5592270	23.083 ng
20) H	C9-C28	5.03	91188505	309.875 ng
21) H	C28-C40	11.88	45189372	157.596 ng
22) H	C9-C40	6.84	148355114	487.912 ng

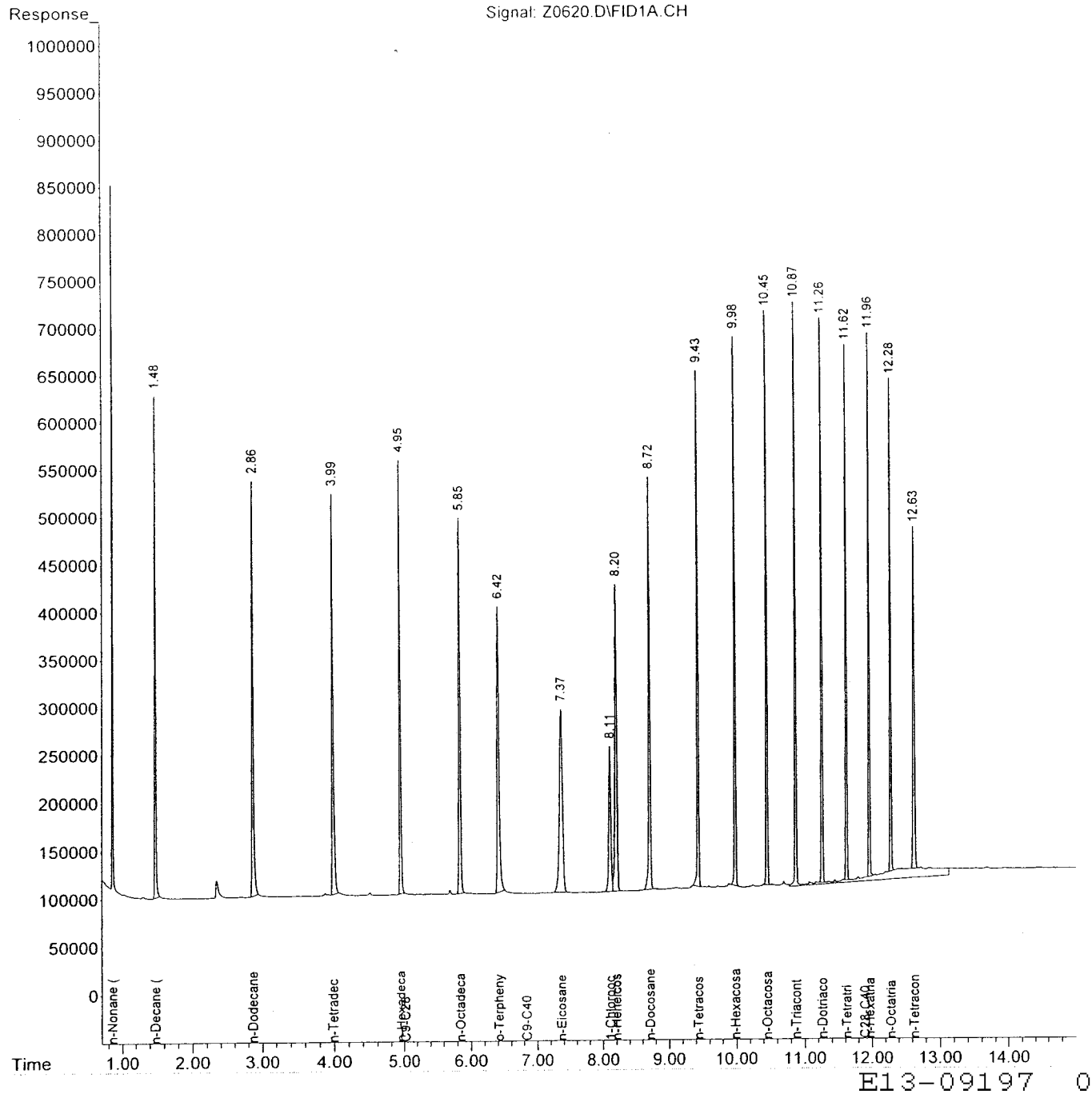
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0620.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 21:18
Operator : WP
Sample : ALI_L1_IAS_4649,20_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0621.D
Signal(s) : FID1A.CH
Acq On : 06 Sep 2013 7:23
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:40:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:09:47 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	8.12	42951239	288.703 ng
Spiked Amount	100.000		Recovery	= 288.70%
23)	S o-Terphenyl	6.43	69689509	249.655 ng
Spiked Amount	100.000		Recovery	= 249.66%
	Target Compounds			
2)	T n-Nonane (C9)	0.85	61404070	259.526 ng
3)	T n-Decane (C10)	1.48	63166886	260.405 ng
4)	T n-Dodecane (C12)	2.86	64522086	259.822 ng
5)	T n-Tetradecane (C14)	3.99	66336740	257.220 ng
6)	T n-Hexadecane (C16)	4.95	67913505	254.797 ng
7)	T n-Octadecane (C18)	5.86	69217362	253.056 ng
8)	T n-Eicosane (C20)	7.40	68290877	247.700 ng
9)	T n-Heneicosane (C21)	8.22	61348625	235.031 ng
10)	T n-Docosane (C22)	8.73	70991399	247.690 ng
11)	T n-Tetracosane (C24)	9.45	73053142	256.273 ng
12)	T n-Hexacosane (C26)	10.00	71930564	255.330 ng
13)	T n-Octacosane (C28)	10.47	70707730	250.591 ng
14)	T n-Triacontane (C30)	10.89	71843210	251.803 ng
15)	T n-Dotriacontane (C32)	11.27	69158426	246.475 ng
16)	T n-Tetratriacontane (C34)	11.64	66722781	247.152 ng
17)	T n-Hexatriacontane (C36)	11.98	66045651	248.509 ng
18)	T n-Octatriacontane (C38)	12.30	62634210	246.560 ng
19)	T n-Tetracontane (C40)	12.65	60211735	248.531 ng
20)	H C9-C28	5.03	905227511	3076.071 ng
21)	H C28-C40	11.88	411581511	1435.377 ng
22)	H C9-C40	6.84	1342962557	4416.694 ng

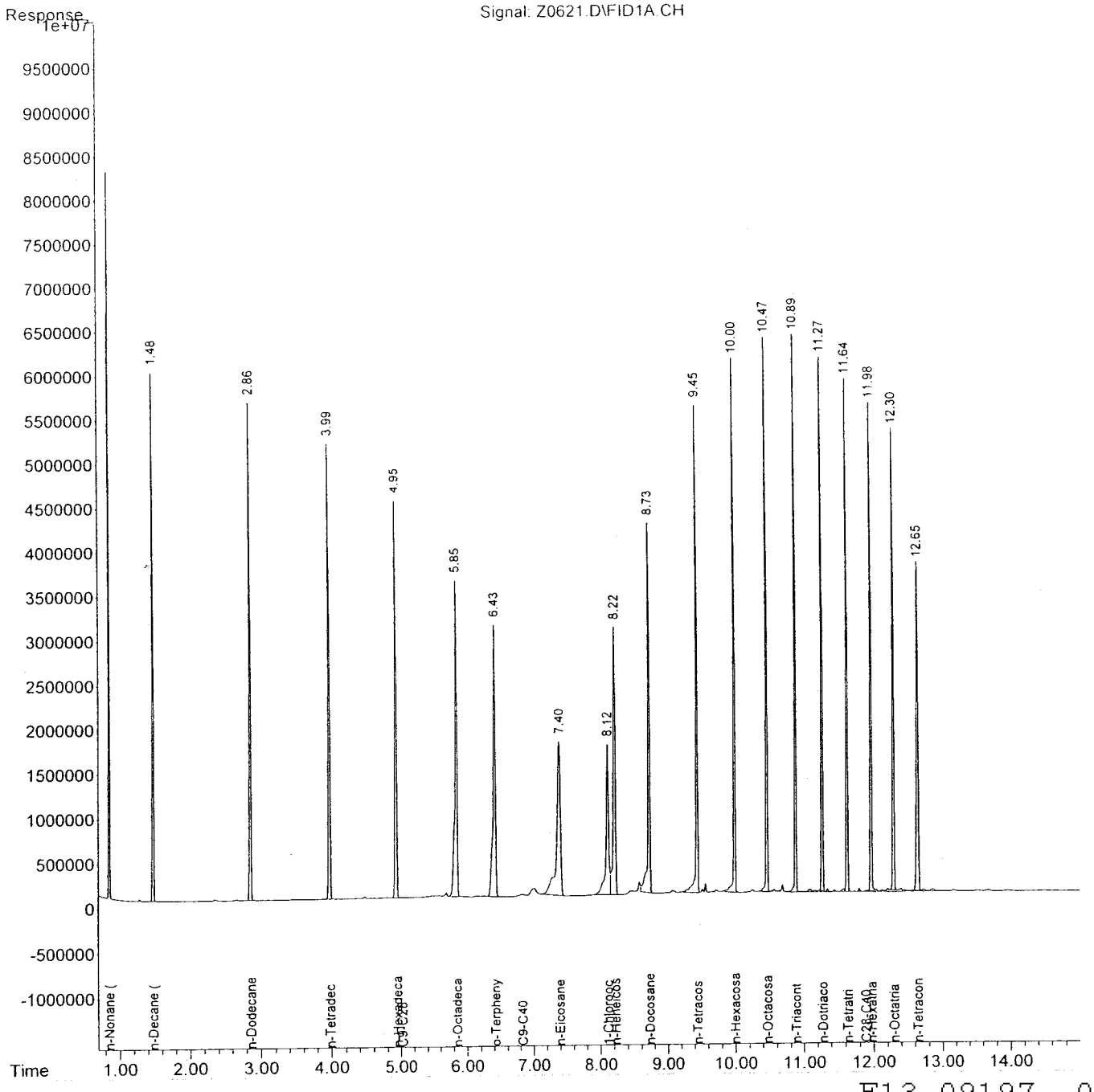
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0621.D
Signal(s) : FID1A.CH
Acq On : 06 Sep 2013 7:23
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:40:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:09:47 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/23/2013 **Instrument ID:** GC-Z

Data File: Z0806.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	245837	3.90
n-Decane (C10)	1.47	1.40	1.55	242572	258993	6.77
n-Dodecane (C12)	2.85	2.78	2.93	248331	265293	6.83
n-Tetradecane (C14)	3.97	3.91	4.06	257899	275210	6.71
n-Hexadecane (C16)	4.94	4.87	5.03	266540	283168	6.24
n-Octadecane (C18)	5.84	5.77	5.93	273526	288967	5.65
n-Eicosane (C20)	7.36	7.31	7.47	275700	288924	4.80
n-Heneicosane (C21)	8.20	8.14	8.30	261024	262891	0.72
n-Docosane (C22)	8.71	8.64	8.82	286614	289669	1.07
n-Tetracosane (C24)	9.43	9.35	9.53	285060	281807	1.14
n-Hexacosane (C26)	9.98	9.90	10.08	281716	273274	3.00
n_Octacosane (C28)	10.45	10.37	10.55	282164	269570	4.46
n-Triacontane (C30)	10.87	10.78	10.98	285316	271633	4.80
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	267426	4.69
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	258968	4.07
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	256643	3.43
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	247000	2.77
n-Tetracontane (C40)	12.62	12.49	12.79	242270	237505	1.97
C9-C28	5.03	4.93	5.13	3531366	3388653	4.04
C28-C40	11.88	11.78	11.98	1720446	1575437	8.43
C9-C40	6.84	6.73	6.95	5473172	5006253	8.53

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0824.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	241627	2.12
n-Decane (C10)	1.47	1.40	1.55	242572	256540	5.76
n-Dodecane (C12)	2.84	2.78	2.93	248331	263197	5.99
n-Tetradecane (C14)	3.97	3.91	4.06	257899	273518	6.06
n-Hexadecane (C16)	4.94	4.87	5.03	266540	281610	5.65
n-Octadecane (C18)	5.84	5.77	5.93	273526	287926	5.26
n-Eicosane (C20)	7.36	7.31	7.47	275700	289863	5.14
n-Heneicosane (C21)	8.20	8.14	8.30	261024	263484	0.94
n-Docosane (C22)	8.71	8.64	8.82	286614	292669	2.11
n-Tetracosane (C24)	9.43	9.35	9.53	285060	288822	1.32
n-Hexacosane (C26)	9.98	9.90	10.08	281716	279142	0.91
n_Octacosane (C28)	10.45	10.37	10.55	282164	276823	1.89
n-Triacontane (C30)	10.87	10.78	10.98	285316	278842	2.27
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	274599	2.14
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	265960	1.48
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	263109	1.00
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	253783	0.10
n-Tetracontane (C40)	12.62	12.49	12.79	242270	246204	1.62
C9-C28	5.03	4.93	5.13	3531366	3500802	0.87
C28-C40	11.88	11.78	11.98	1720446	1641995	4.56
C9-C40	6.84	6.73	6.95	5473172	5200625	4.98

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0826.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	263986	11.57
n-Decane (C10)	1.47	1.40	1.55	242572	278221	14.70
n-Dodecane (C12)	2.84	2.78	2.93	248331	285503	14.97
n-Tetradecane (C14)	3.97	3.91	4.06	257899	296011	14.78
n-Hexadecane (C16)	4.94	4.87	5.03	266540	304300	14.17
n-Octadecane (C18)	5.84	5.77	5.93	273526	308799	12.90
n-Eicosane (C20)	7.36	7.31	7.47	275700	306442	11.15
n-Heneicosane (C21)	8.20	8.14	8.30	261024	275740	5.64
n-Docosane (C22)	8.71	8.64	8.82	286614	306873	7.07
n-Tetracosane (C24)	9.43	9.35	9.53	285060	299218	4.97
n-Hexacosane (C26)	9.98	9.90	10.08	281716	287147	1.93
n_Octacosane (C28)	10.45	10.37	10.55	282164	282118	0.02
n-Triacontane (C30)	10.87	10.78	10.98	285316	283387	0.68
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	279031	0.56
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	270880	0.34
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	268948	1.20
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	260483	2.54
n-Tetracontane (C40)	12.62	12.49	12.79	242270	252689	4.30
C9-C28	5.03	4.93	5.13	3531366	3594162	1.78
C28-C40	11.88	11.78	11.98	1720446	1665380	3.20
C9-C40	6.84	6.73	6.95	5473172	5312773	2.93

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0830.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	247694	4.69
n-Decane (C10)	1.47	1.40	1.55	242572	262075	8.04
n-Dodecane (C12)	2.84	2.78	2.93	248331	268761	8.23
n-Tetradecane (C14)	3.97	3.91	4.06	257899	278808	8.11
n-Hexadecane (C16)	4.94	4.87	5.03	266540	287440	7.84
n-Octadecane (C18)	5.84	5.77	5.93	273526	292619	6.98
n-Eicosane (C20)	7.36	7.31	7.47	275700	291488	5.73
n-Heneicosane (C21)	8.20	8.14	8.30	261024	261959	0.36
n-Docosane (C22)	8.71	8.64	8.82	286614	291973	1.87
n-Tetracosane (C24)	9.43	9.35	9.53	285060	284237	0.29
n-Hexacosane (C26)	9.98	9.90	10.08	281716	271952	3.47
n_Octacosane (C28)	10.45	10.37	10.55	282164	266681	5.49
n-Triacontane (C30)	10.87	10.78	10.98	285316	267168	6.36
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	262264	6.53
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	253462	6.11
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	252136	5.13
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	243934	3.98
n-Tetracontane (C40)	12.62	12.49	12.79	242270	236911	2.21
C9-C28	5.03	4.93	5.13	3531366	3404547	3.59
C28-C40	11.88	11.78	11.98	1720446	1563282	9.14
C9-C40	6.84	6.73	6.95	5473172	5019690	8.29

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0806.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 22:59
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	39468506	265.170 ng
Spiked Amount	100.000		Recovery =	265.17%
23) S	o-Terphenyl	6.40	72986512	261.466 ng
Spiked Amount	100.000		Recovery =	261.47%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61459143	259.759 ng
3) T	n-Decane (C10)	1.47	64748182	266.924 ng
4) T	n-Dodecane (C12)	2.85	66323285	267.076 ng
5) T	n-Tetradecane (C14)	3.97	68802429	266.781 ng
6) T	n-Hexadecane (C16)	4.94	70792086	265.597 ng
7) T	n-Octadecane (C18)	5.84	72241726	264.113 ng
8) T	n-Eicosane (C20)	7.36	72230894	259.428 ng
9) T	n-Heneicosane (C21)	8.20	65722699	251.788 ng
10) T	n-Docosane (C22)	8.71	72417365	252.665 ng
11) T	n-Tetracosane (C24)	9.43	70451679	247.147 ng
12) T	n-Hexacosane (C26)	9.98	68318515	242.509 ng
13) T	n-Octacosane (C28)	10.45	67392619	238.842 ng
14) T	n-Triacontane (C30)	10.87	67908365	238.011 ng
15) T	n-Dotriacontane (C32)	11.26	66856389	238.270 ng
16) T	n-Tetratriacontane (C34)	11.62	64741968	239.815 ng
17) T	n-Hexatriacontane (C36)	11.96	64160801	241.417 ng
18) T	n-Octatriacontane (C38)	12.28	61750077	243.079 ng
19) T	n-Tetracontane (C40)	12.62	59376269	245.083 ng
20) H	C9-C28	5.03	847163218	2878.817 ng
21) H	C28-C40	11.88	393859140	1373.571 ng
22) H	C9-C40	6.84	1251563174	4116.154 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

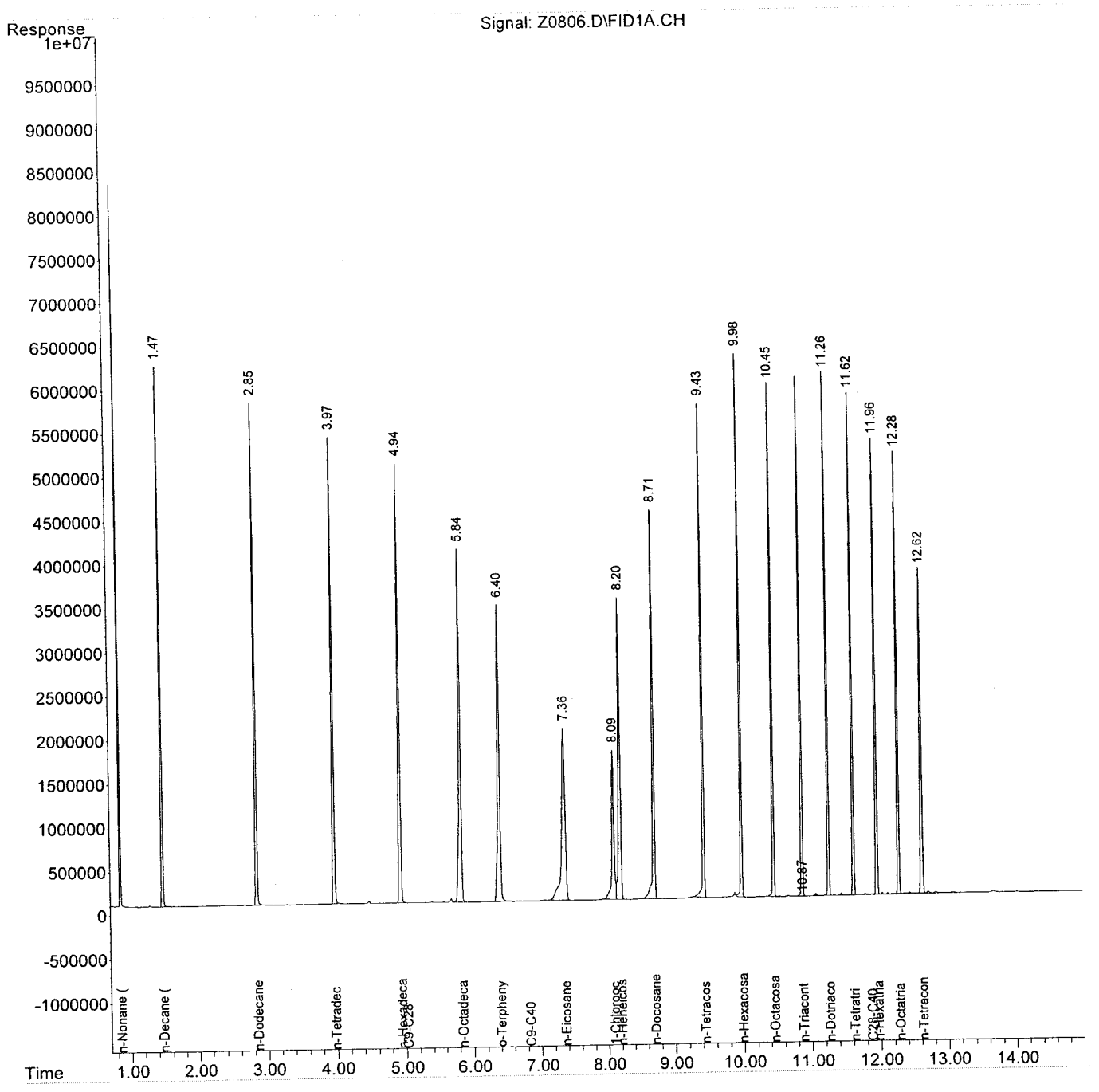
E13-09197 0382

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0806.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 22:59
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09197 0383

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0824.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:38
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	40269064	270.549 ng
Spiked Amount	100.000		Recovery =	270.55%
23) S	o-Terphenyl	6.40	73357159	262.794 ng
Spiked Amount	100.000		Recovery =	262.79%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	60406859	255.312 ng
3) T	n-Decane (C10)	1.47	64134984	264.396 ng
4) T	n-Dodecane (C12)	2.84	65799275	264.966 ng
5) T	n-Tetradecane (C14)	3.97	68379499	265.141 ng
6) T	n-Hexadecane (C16)	4.94	70402422	264.135 ng
7) T	n-Octadecane (C18)	5.84	71981588	263.161 ng
8) T	n-Eicosane (C20)	7.36	72465823	260.272 ng
9) T	n-Heneicosane (C21)	8.20	65871049	252.356 ng
10) T	n-Docosane (C22)	8.71	73167350	255.282 ng
11) T	n-Tetracosane (C24)	9.43	72205574	253.300 ng
12) T	n-Hexacosane (C26)	9.98	69785502	247.716 ng
13) T	n-Octacosane (C28)	10.45	69205716	245.268 ng
14) T	n-Triacontane (C30)	10.87	69710536	244.328 ng
15) T	n-Dotriacontane (C32)	11.26	68649802	244.662 ng
16) T	n-Tetratriacontane (C34)	11.62	66490014	246.290 ng
17) T	n-Hexatriacontane (C36)	11.96	65777252	247.499 ng
18) T	n-Octatriacontane (C38)	12.28	63445745	249.754 ng
19) T	n-Tetracontane (C40)	12.62	61551081	254.060 ng
20) H	C9-C28	5.03	875200428	2974.093 ng
21) H	C28-C40	11.88	410498636	1431.601 ng
22) H	C9-C40	6.84	1300156248	4275.968 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

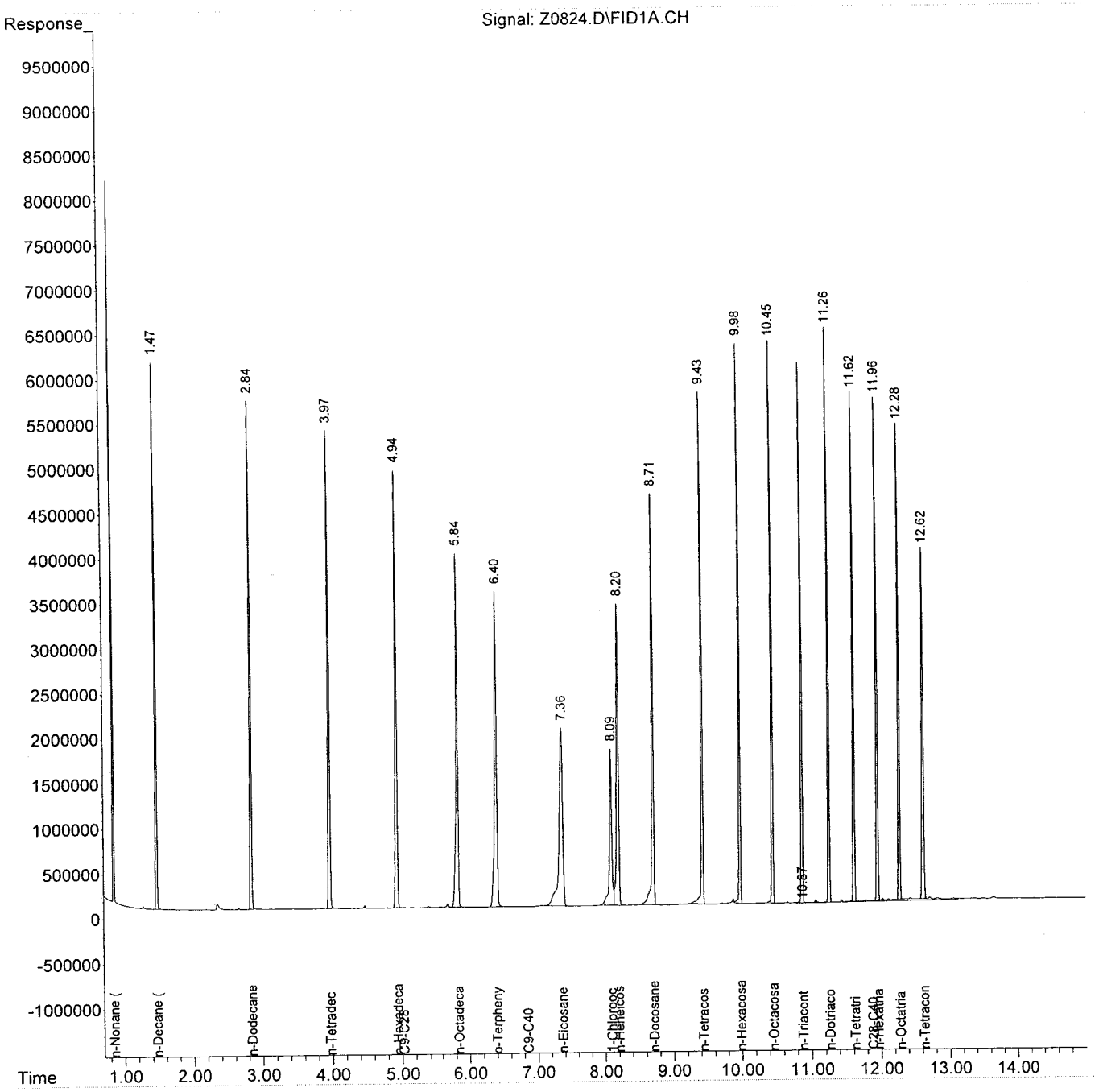
E13-09197 0384

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0824.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:38
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0826.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:08
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:35:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	8.09	43067511	289.350 ng
Spiked Amount	100.000		Recovery =	289.35%
23)	S o-Terphenyl	6.40	77912208	279.112 ng
Spiked Amount	100.000		Recovery =	279.11%
	Target Compounds			
2)	T n-Nonane (C9)	0.85	65996489	278.936 ng
3)	T n-Decane (C10)	1.47	69555315	286.741 ng
4)	T n-Dodecane (C12)	2.84	71375659	287.421 ng
5)	T n-Tetradecane (C14)	3.97	74002698	286.945 ng
6)	T n-Hexadecane (C16)	4.94	76074905	285.417 ng
7)	T n-Octadecane (C18)	5.84	77199743	282.239 ng
8)	T n-Eicosane (C20)	7.36	76610434	275.158 ng
9)	T n-Heneicosane (C21)	8.20	68935120	264.095 ng
10)	T n-Docosane (C22)	8.71	76718363	267.671 ng
11)	T n-Tetracosane (C24)	9.43	74804468	262.417 ng
12)	T n-Hexacosane (C26)	9.98	71786860	254.820 ng
13)	T n-Octacosane (C28)	10.45	70529490	249.959 ng
14)	T n-Triacontane (C30)	10.87	70846849	248.310 ng
15)	T n-Dotriacontane (C32)	11.26	69757696	248.610 ng
16)	T n-Tetratriacontane (C34)	11.62	67720106	250.846 ng
17)	T n-Hexatriacontane (C36)	11.96	67237018	252.992 ng
18)	T n-Octatriacontane (C38)	12.28	65120755	256.348 ng
19)	T n-Tetracontane (C40)	12.62	63172172	260.751 ng
20)	H C9-C28	5.03	898540517	3053.407 ng
21)	H C28-C40	11.88	416345038	1451.990 ng
22)	H C9-C40	6.84	1328193139	4368.176 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

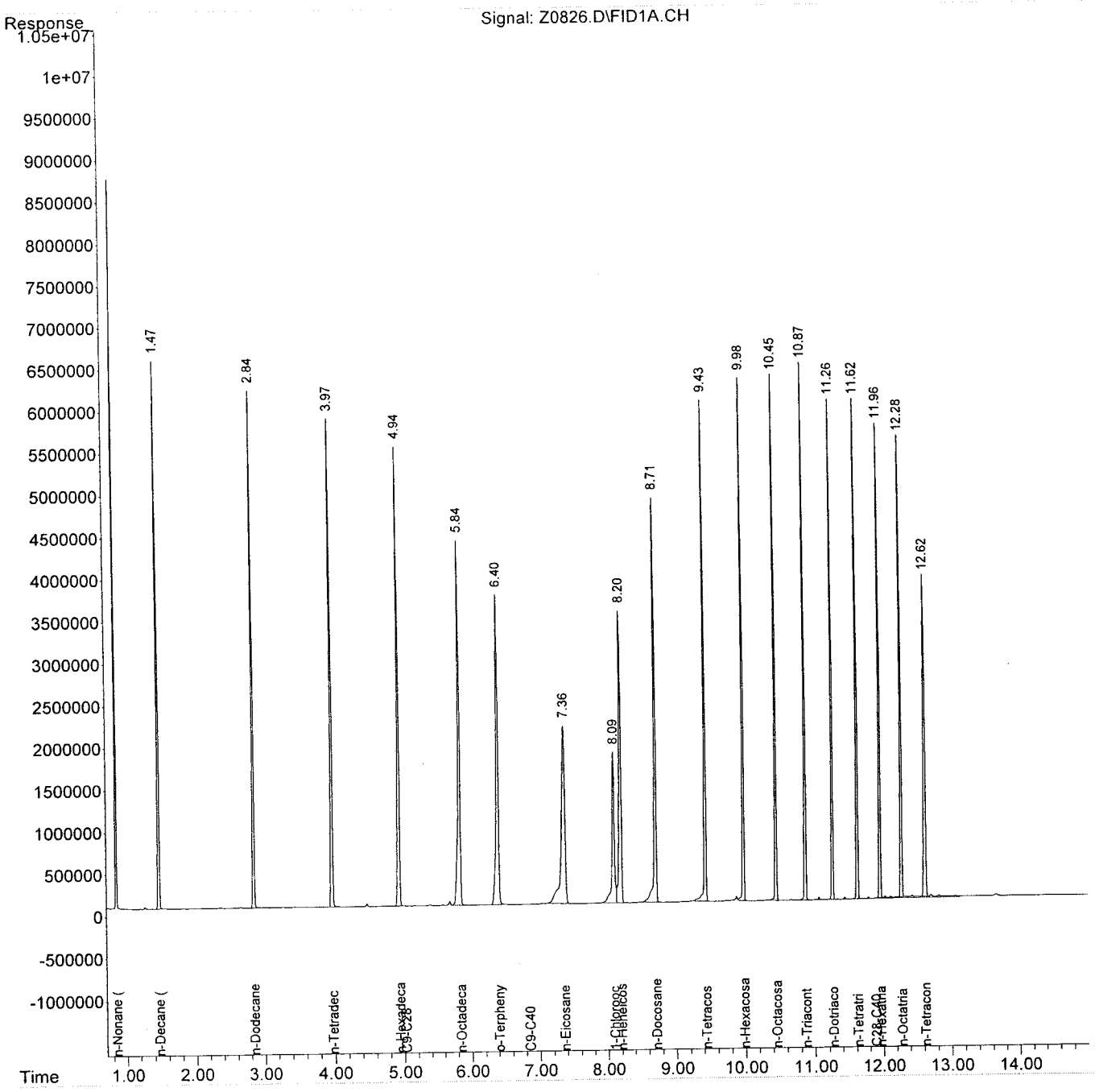
E13-09197 0386

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0826.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:08
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:35:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09197 0387

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0830.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:44
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 12:02:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	40809174	274.177 ng
Spiked Amount	100.000		Recovery =	274.18%
23) S	o-Terphenyl	6.40	73753071	264.212 ng
Spiked Amount	100.000		Recovery =	264.21%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61923491	261.722 ng
3) T	n-Decane (C10)	1.47	65518781	270.101 ng
4) T	n-Dodecane (C12)	2.84	67190374	270.567 ng
5) T	n-Tetradecane (C14)	3.97	69701996	270.269 ng
6) T	n-Hexadecane (C16)	4.94	71860086	269.603 ng
7) T	n-Octadecane (C18)	5.84	73154701	267.450 ng
8) T	n-Eicosane (C20)	7.36	72871997	261.731 ng
9) T	n-Heneicosane (C21)	8.20	65489857	250.896 ng
10) T	n-Docosane (C22)	8.71	72993234	254.674 ng
11) T	n-Tetracosane (C24)	9.43	71059291	249.278 ng
12) T	n-Hexacosane (C26)	9.98	67988040	241.336 ng
13) T	n-Octacosane (C28)	10.45	66670173	236.282 ng
14) T	n-Triacontane (C30)	10.87	66791885	234.098 ng
15) T	n-Dotriacontane (C32)	11.26	65565898	233.671 ng
16) T	n-Tetratriacontane (C34)	11.62	63365495	234.716 ng
17) T	n-Hexatriacontane (C36)	11.96	63034047	237.177 ng
18) T	n-Octatriacontane (C38)	12.28	60983384	240.061 ng
19) T	n-Tetracontane (C40)	12.62	59227866	244.470 ng
20) H	C9-C28	5.03	851136727	2892.320 ng
21) H	C28-C40	11.88	390820568	1362.974 ng
22) H	C9-C40	6.84	1254922506	4127.203 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

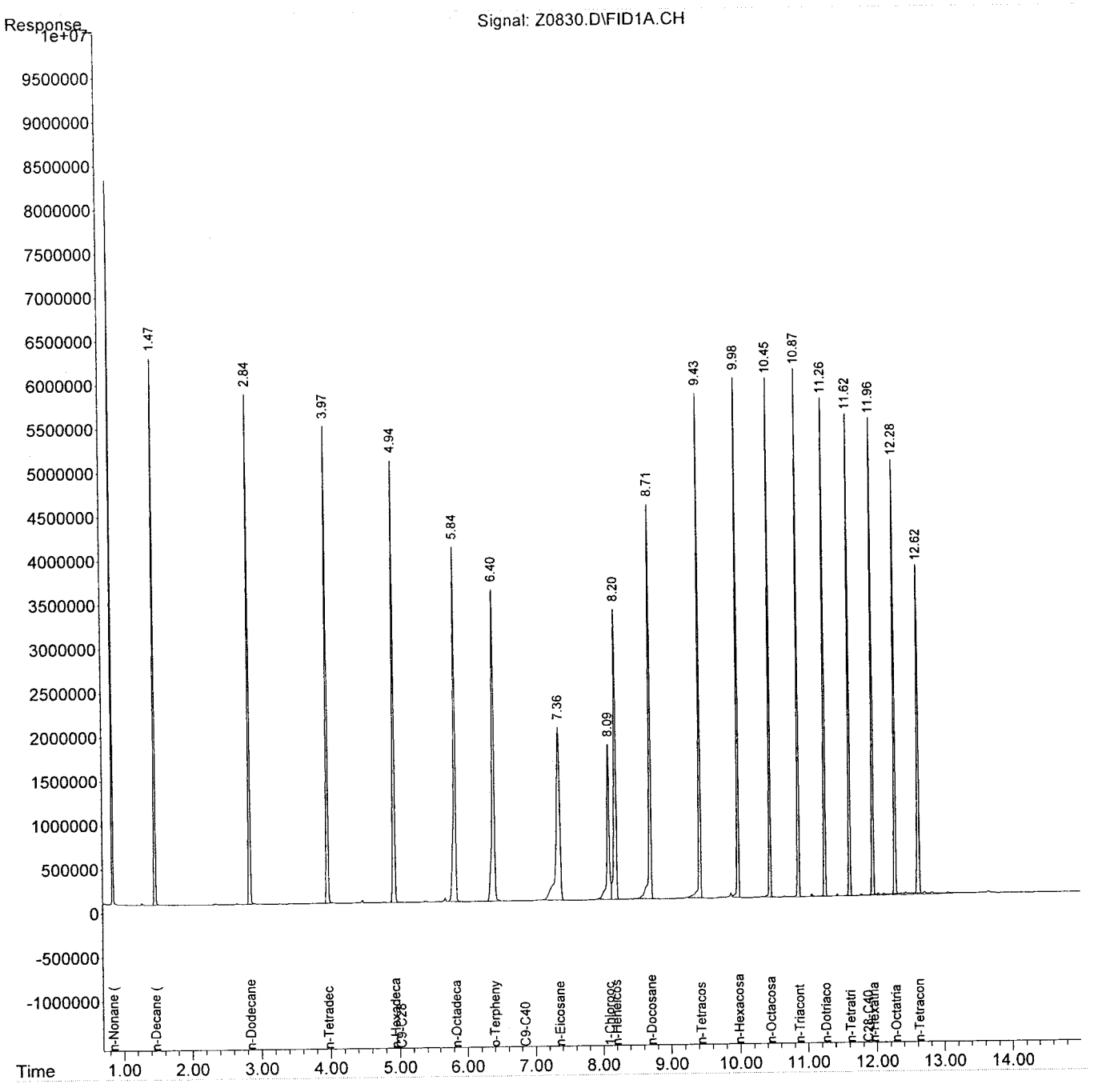
E13-09197 0388

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0830.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:44
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 12:02:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0808.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:43
Operator : WP
Sample : NJ-EPH-C,LCSS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	13433471	90.253	ng	
Spiked Amount	100.000		Recovery =	90.25%		
23) S	o-Terphenyl	6.39	25819488	92.495	ng	
Spiked Amount	100.000		Recovery =	92.50%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	8452565	35.725	ng	
3) T	n-Decane (C10)	1.46	13383815	55.175	ng	
4) T	n-Dodecane (C12)	2.84	17823807	71.774	ng	
5) T	n-Tetradecane (C14)	3.97	20532517	79.615	ng	
6) T	n-Hexadecane (C16)	4.94	23365566	87.663	ng	
7) T	n-Octadecane (C18)	5.83	32125335	117.449	ng	
8) T	n-Eicosane (C20)	7.35	25719459	92.375	ng	
9) T	n-Heneicosane (C21)	8.19	29343713	112.418	ng	
10) T	n-Docosane (C22)	8.70	27976488	97.610	ng	
11) T	n-Tetracosane (C24)	9.43	26190566	91.877	ng	
12) T	n-Hexacosane (C26)	9.97	26415280	93.766	ng	
13) T	n-Octacosane (C28)	10.44	26979304	95.616	ng	m
14) T	n-Triacontane (C30)	10.87	26163625	91.701	ng	
15) T	n-Dotriacontane (C32)	11.25	24452231	87.146	ng	
16) T	n-Tetratriacontane (C34)	11.61	23159626	85.787	ng	
17) T	n-Hexatriacontane (C36)	11.95	18730258	70.476	ng	
18) T	n-Octatriacontane (C38)	12.27	15607542	61.439	ng	
19) T	n-Tetracontane (C40)	12.62	13989521	57.744	ng	
20) H	C9-C28	5.03	741277119	2518.997	ng	
21) H	C28-C40	11.88	225107995	785.057	ng	
22) H	C9-C40	6.84	973593480	3201.965	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

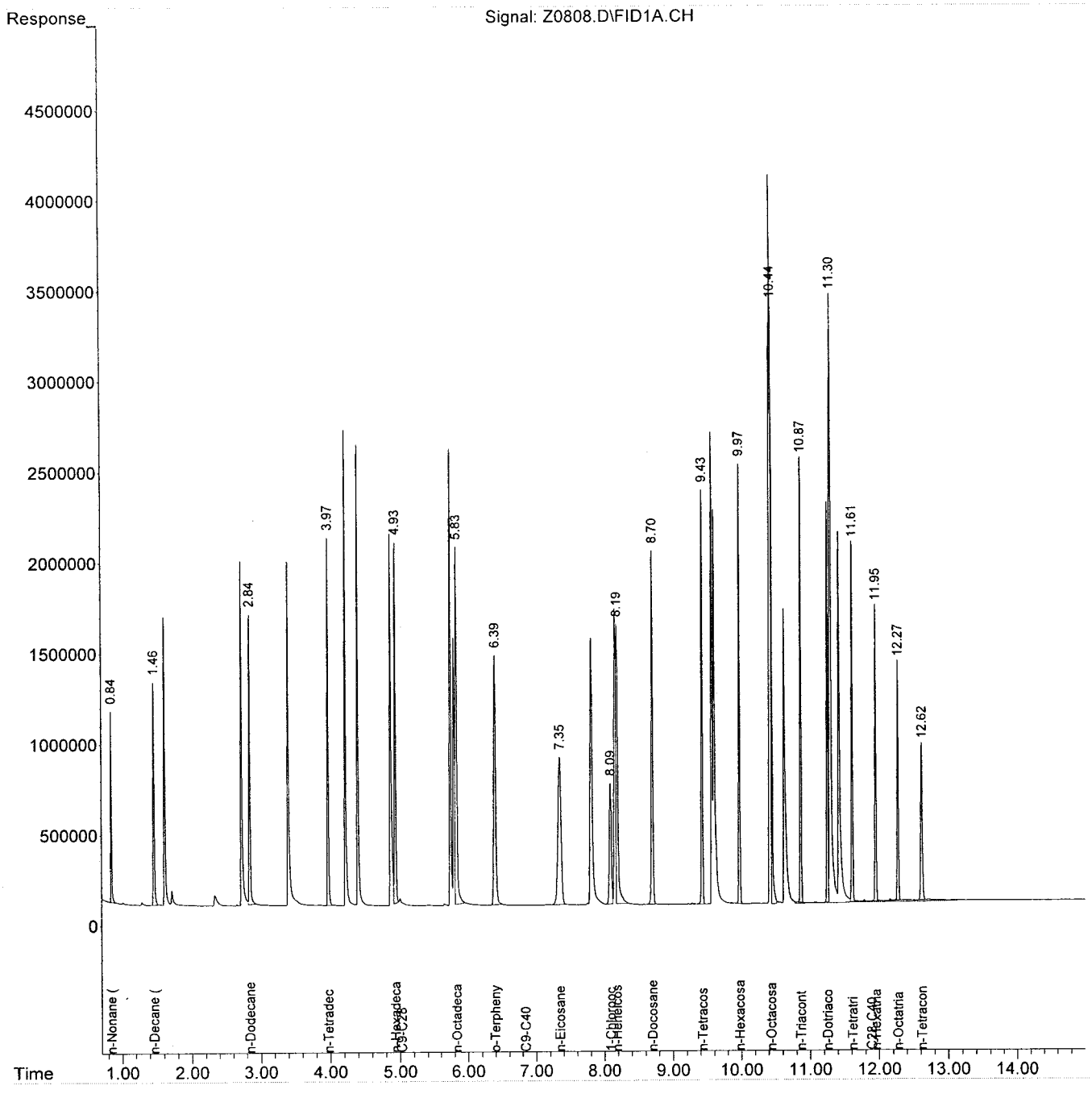
E13-09197 0391

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0808.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:43
Operator : WP
Sample : NJ-EPH-C,LCSS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0809.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:05
Operator : WP
Sample : NJ-EPH-C,LCSDS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	13184532	88.581	ng	
Spiked Amount	100.000		Recovery =	88.58%		
23) S	o-Terphenyl	6.39	25402548	91.002	ng	
Spiked Amount	100.000		Recovery =	91.00%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	8360697	35.337	ng	
3) T	n-Decane (C10)	1.46	13270421	54.707	ng	
4) T	n-Dodecane (C12)	2.84	17718666	71.351	ng	
5) T	n-Tetradecane (C14)	3.97	20235938	78.465	ng	
6) T	n-Hexadecane (C16)	4.94	23084850	86.609	ng	
7) T	n-Octadecane (C18)	5.83	31888409	116.583	ng	
8) T	n-Eicosane (C20)	7.35	25370928	91.124	ng	
9) T	n-Heneicosane (C21)	8.19	29964512	114.796	ng	
10) T	n-Docosane (C22)	8.70	27648943	96.467	ng	
11) T	n-Tetracosane (C24)	9.43	25693935	90.135	ng	
12) T	n-Hexacosane (C26)	9.98	26187105	92.956	ng	
13) T	n-Octacosane (C28)	10.44	24924871	88.335	ng	m
14) T	n-Triacontane (C30)	10.87	25894656	90.758	ng	
15) T	n-Dotriacontane (C32)	11.25	24102356	85.899	ng	
16) T	n-Tetratriacontane (C34)	11.61	22681800	84.017	ng	
17) T	n-Hexatriacontane (C36)	11.95	18123474	68.193	ng	
18) T	n-Octatriacontane (C38)	12.27	15031977	59.173	ng	
19) T	n-Tetracontane (C40)	12.62	13547493	55.919	ng	
20) H	C9-C28	5.03	729587394	2479.273	ng	
21) H	C28-C40	11.88	221092863	771.054	ng	
22) H	C9-C40	6.84	959779746	3156.534	ng	

(f)=RT Delta > 1/2 Window

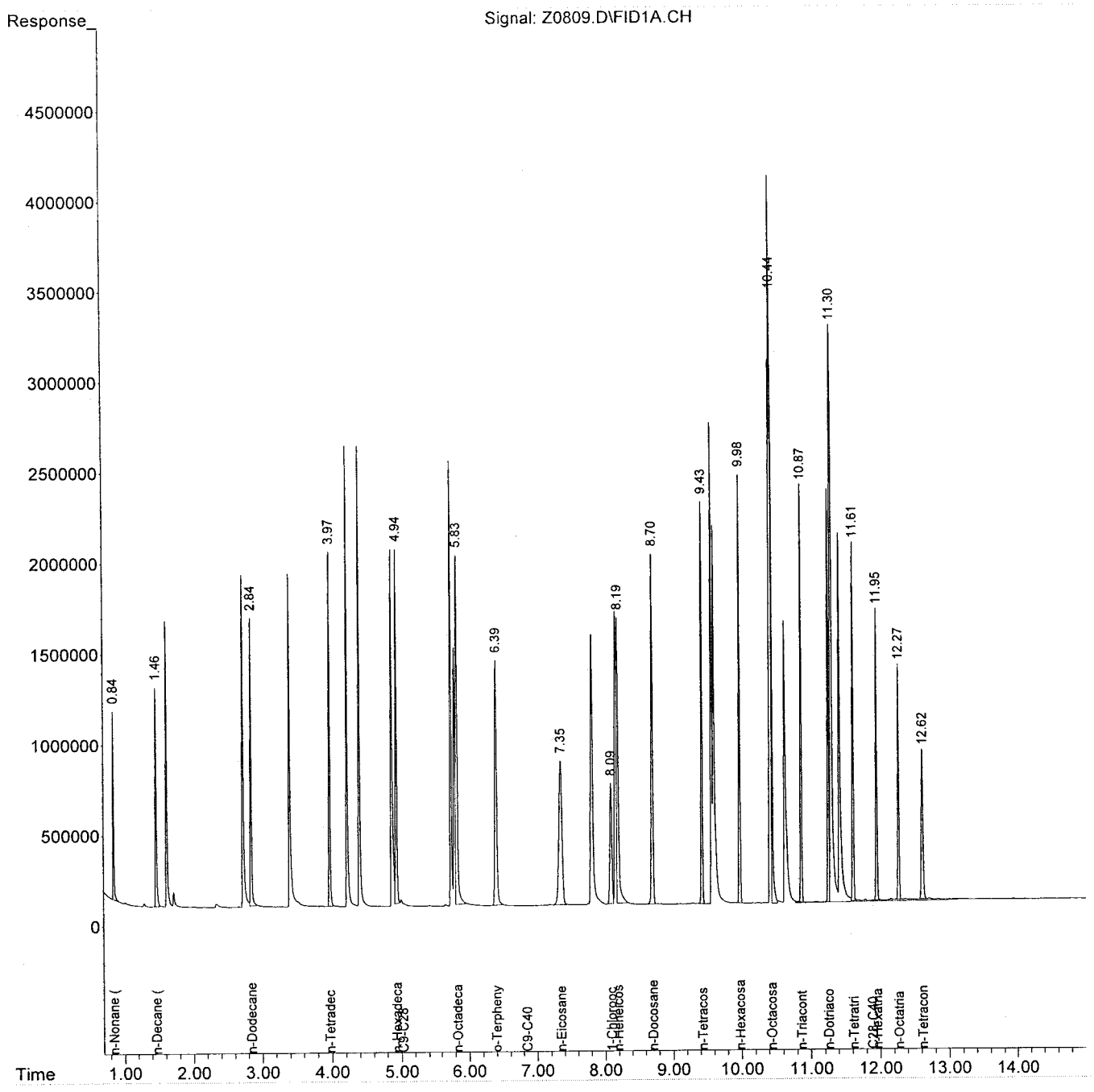
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0809.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:05
Operator : WP
Sample : NJ-EPH-C,LCSDS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0823.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:16
Operator : WP
Sample : NJ-EPH-C,09198-004MS,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:09:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	11235381	75.485	ng	
Spiked Amount	100.000		Recovery =	75.48%		
23) S	o-Terphenyl	6.39	21701384	77.743	ng	
Spiked Amount	100.000		Recovery =	77.74%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	7600081	32.122	ng	
3) T	n-Decane (C10)	1.46	11548542	47.609	ng	
4) T	n-Dodecane (C12)	2.84	14804169	59.615	ng	
5) T	n-Tetradecane (C14)	3.97	17086951	66.254	ng	
6) T	n-Hexadecane (C16)	4.93	19300175	72.410	ng	
7) T	n-Octadecane (C18)	5.83	25200688	92.133	ng	m
8) T	n-Eicosane (C20)	7.35	21249681	76.321	ng	
9) T	n-Heneicosane (C21)	8.18	24582609	94.178	ng	m
10) T	n-Docosane (C22)	8.70	22929923	80.003	ng	
11) T	n-Tetracosane (C24)	9.43	21155072	74.213	ng	
12) T	n-Hexacosane (C26)	9.97	21368098	75.850	ng	
13) T	n-Octacosane (C28)	10.44	21557233	76.400	ng	m
14) T	n-Triacontane (C30)	10.87	21110395	73.990	ng	
15) T	n-Dotriacontane (C32)	11.25	19898544	70.917	ng	
16) T	n-Tetratriacontane (C34)	11.61	19354511	71.692	ng	
17) T	n-Hexatriacontane (C36)	11.95	16029315	60.313	ng	
18) T	n-Octatriacontane (C38)	12.27	12488797	49.162	ng	
19) T	n-Tetracontane (C40)	12.62	11095834	45.799	ng	
20) H	C9-C28	5.03	605476510	2057.521	ng	
21) H	C28-C40	11.88	194717509	679.071	ng	
22) H	C9-C40	6.84	820855476	2699.638	ng	

(f)=RT Delta > 1/2 Window

(m)=manual int.

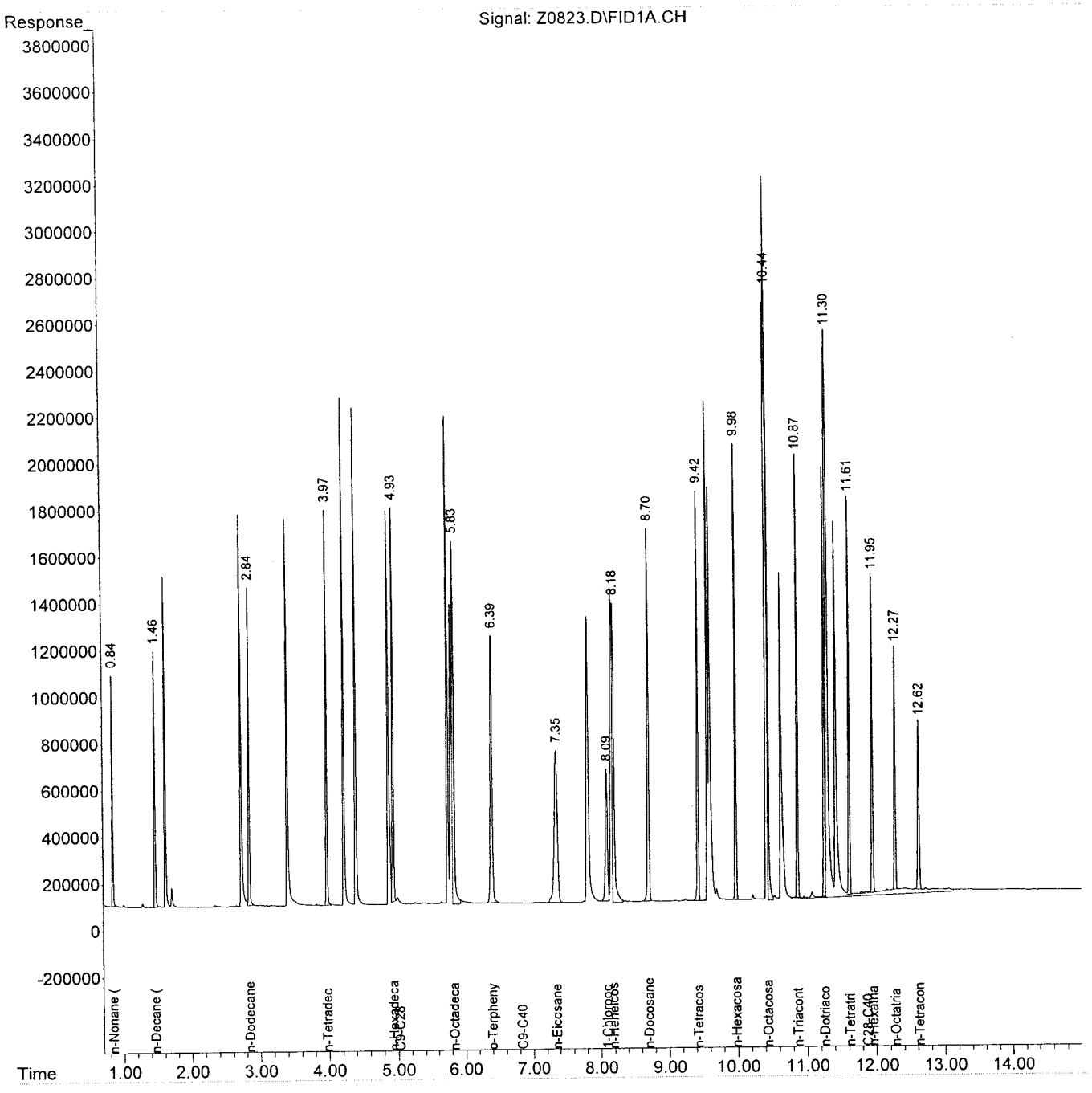
E13-09197 0395

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0823.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:16
Operator : WP
Sample : NJ-EPH-C,09198-004MS,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:09:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	11875881	79.788 ng
Spiked Amount 100.000		Recovery =	79.79%
23) S o-Terphenyl	6.39	23982725	85.915 ng
Spiked Amount 100.000		Recovery =	85.92%
Target Compounds			
22) H C9-C40	6.84	80350863	264.259 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

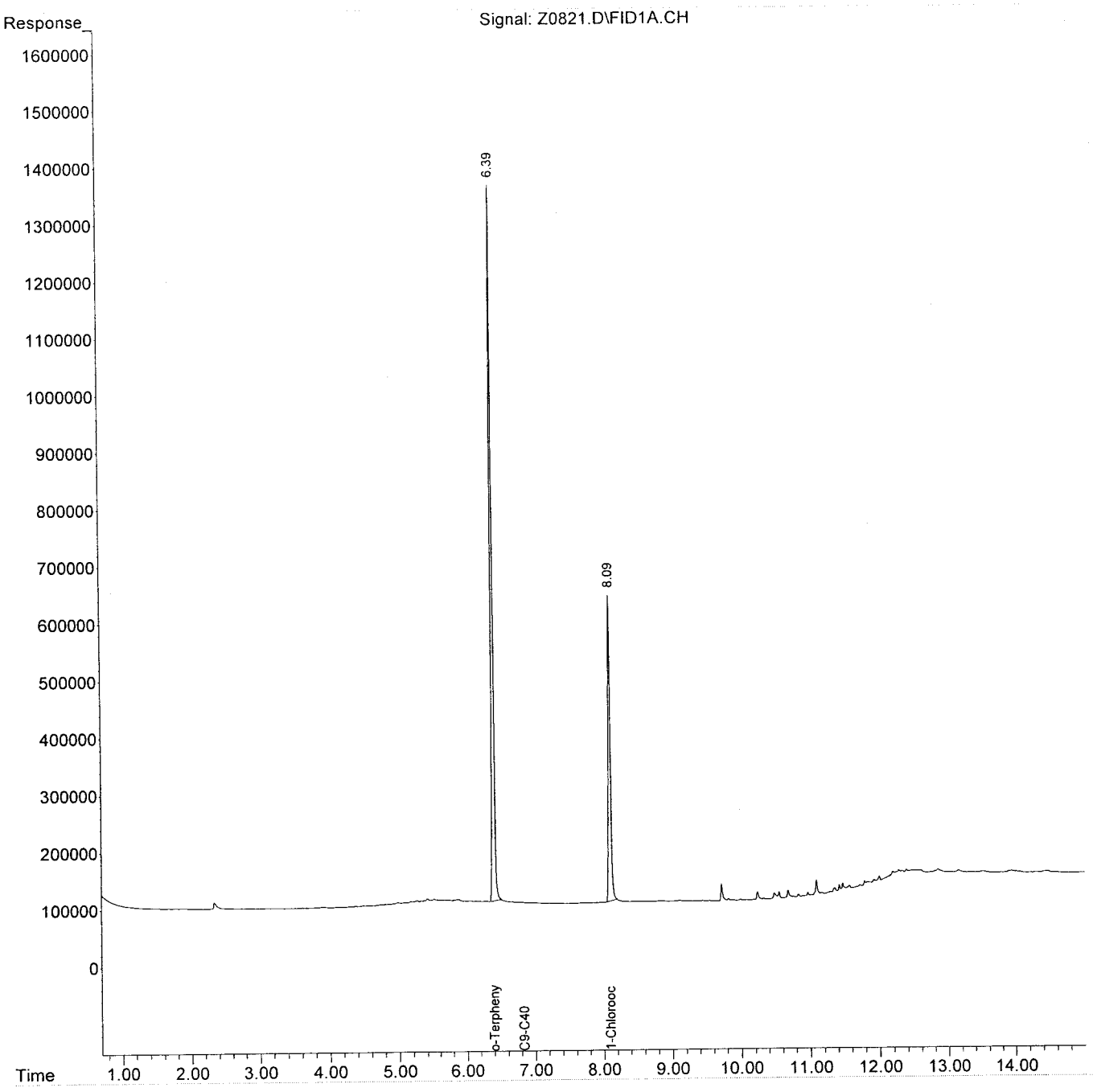
E13-09197 0397

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0822.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:54
Operator : WP
Sample : AOC-12-4,09198-4D,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	12030287	80.826 ng
Spiked Amount 100.000		Recovery =	80.83%
23) S o-Terphenyl	6.39	24456093	87.611 ng
Spiked Amount 100.000		Recovery =	87.61%
Target Compounds			
22) H C9-C40	6.84	82029218	269.779 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

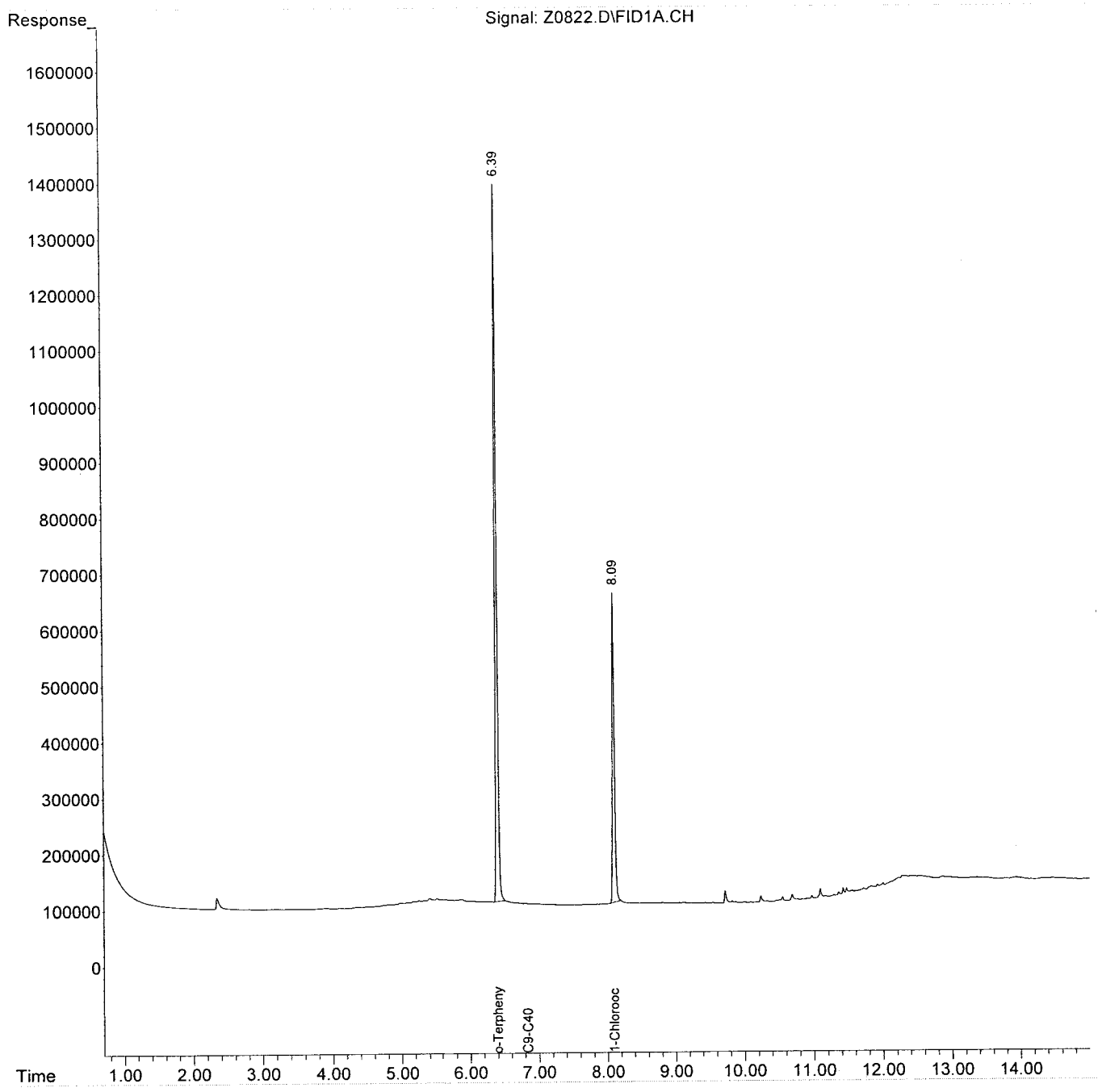
WP

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0822.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:54
Operator : WP
Sample : AOC-12-4,09198-4D,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: BLKS130919-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: Z0807.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
C9-C40	ND		36.0	9.00

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0807.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:21
Operator : WP
Sample : NJ-EPH-C,BLKS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.10	10983605	73.794	ng	m
Spiked Amount 100.000		Recovery =	73.79%		
23) S o-Terphenyl	6.40	20973388	75.135	ng	
Spiked Amount 100.000		Recovery =	75.14%		
Target Compounds					

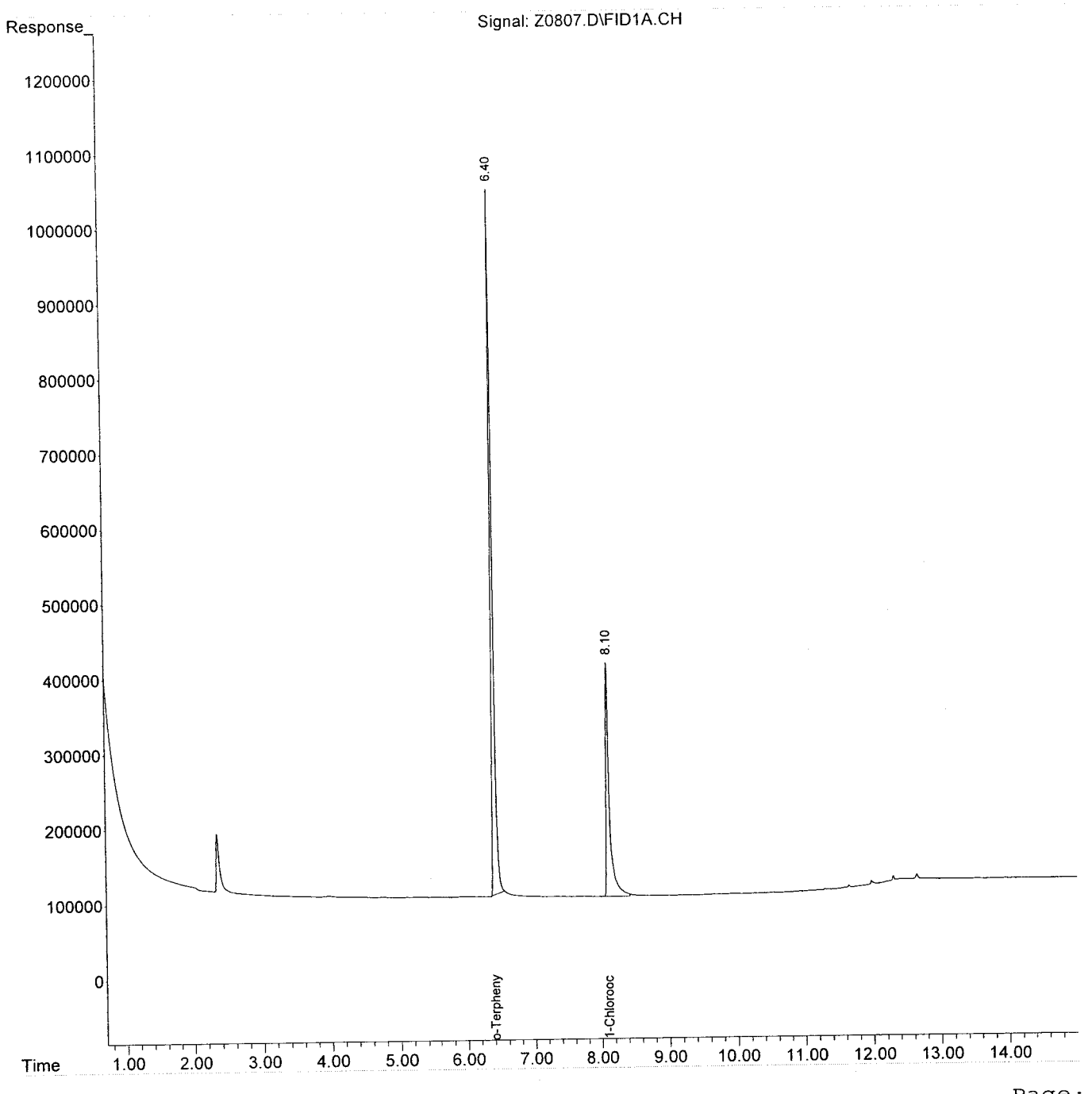
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0807.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:21
Operator : WP
Sample : NJ-EPH-C,BLKS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON

FRACTIOANTED
EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS130923-15	SOIL	68	
ALI	LCSS130923-15	SOIL	74	
ALI	LCSDS130923-15	SOIL	78	
SW-207	09273-008	SOIL	116	
G-41/1.5	09263-002	SOIL	44	
AOC-2-4/	09135-004	SOIL	53	
C-2_LOAD	09196-002	SOLID	57	
C-3_BLD_	09196-003	SOLID	52	
C-4_IMP.	09196-004	SOLID	48	
C-5_SPHI	09196-005	SOLID	56	
AOC-7-2/	09197-004	SOIL	46	
AOC-7-3/	09197-005	SOIL	46	
AOC-7-4/	09197-006	SOIL	57	
SW-207	09273-8D	SOIL	113	
ALI	09273-008MS	SOIL	65	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS130923-15	SOIL	80		81		73	
ARO	LCSS130923-15	SOIL	73		52		67	
ARO	LCSDS130923-15	SOIL	70		49		64	
SW-207	09273-008	SOIL	70		88		94	
G-41/1.5	09263-002	SOIL	76		84		55	
AOC-2-4/	09135-004	SOIL	83		78		73	
C-2_LOAD	09196-002	SOLID	79		86		60	
C-3_BLD_	09196-003	SOLID	81		78		61	
C-4_IMP.	09196-004	SOLID	83		83		59	
C-5_SPHI	09196-005	SOLID	80		79		54	
AOC-7-2/	09197-004	SOIL	97		96		69	
AOC-7-3/	09197-005	SOIL	106		91		89	
AOC-7-4/	09197-006	SOIL	91		80		89	
SW-207	09273-8D	SOIL	81		89		76	
ARO	09273-008MS	SOIL	76		83		73	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130923-15
Client ID: ALI
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: U6385.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	50	0.00	26	52	27	54	4
n-Decane (C10)	50	0.00	36	72	38	76	5
n-Dodecane (C12)	50	0.00	41	82	43	86	5
n-Tetradecane (C14)	50	0.00	45	90	47	94	4
n-Hexadecane (C16)	50	0.00	47	94	50	100	6
n-Octadecane (C18)	50	0.00	47	94	51	102	8
n-Eicosane (C20)	50	0.00	46	92	49	98	6
n-Heneicosane (C21)	50	0.00	43	86	46	92	7
n-Docosane (C22)	50	0.00	48	96	51	102	6
n-Tetracosane (C24)	50	0.00	43	86	45	90	5
n-Hexacosane (C26)	50	0.00	45	90	46	92	2
n-Octacosane (C28)	50	0.00	46	92	47	94	2
n-Triacontane (C30)	50	0.00	47	94	48	96	2
n-Dotriacontane (C32)	50	0.00	46	92	46	92	0
n-Tetratriacontane (C34)	50	0.00	47	94	48	96	2
n-Hexatriacontane (C36)	50	0.00	44	88	45	90	2
n-Octatriacontane (C38)	50	0.00	43	86	44	88	2
n-Tetracontane (C40)	50	0.00	44	88	45	90	2
C9-C12	150	0.00	63	42	65	43	3
C12-C16	100	0.00	92	92	98	98	6
C16-C21	150	0.00	139	93	148	99	6
C21-C40	500	0.00	484	97	494	99	2

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130923-15
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: UB4460.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	29	58	27	54	7
Napthalene	50	0.00	37	74	35	70	6
2-Methylnaphthalene	50	0.00	39	78	37	74	5
Acenaphthylene	50	0.00	39	78	37	74	5
Acenaphthene	50	0.00	49	98	48	96	2
Fluorene	50	0.00	39	78	37	74	5
Phenanthrene	50	0.00	42	84	40	80	5
Anthracene	50	0.00	44	88	41	82	7
Fluoroanthene	50	0.00	43	86	41	82	5
Pyrene	50	0.00	44	88	42	84	5
Benzo[a]anthracene	50	0.00	41	82	39	78	5
Chrysene	50	0.00	49	98	47	94	4
Benzo[b]fluoranthene	50	0.00	45	90	42	84	7
Benzo[k]fluoranthene	50	0.00	45	90	42	84	7
Benzo[a]pyrene	50	0.00	40	80	37	74	8
Indeno[1,2,3-cd]pyrene	50	0.00	44	88	42	84	5
Dibenz[a,h]anthracene	50	0.00	44	88	42	84	5
Benzo[g,h,i]perylene	50	0.00	43	86	42	84	2
C10-C12	100	0.00	68	68	64	64	6
C12-C16	150	0.00	125	83	120	80	4
C16-C21	250	0.00	222	89	213	85	4
C21-C36	400	0.00	365	91	346	87	5

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09273-008MS
Client ID: ALI
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: U6397.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 11.9

Compound	Conc. Add	Sample	MS Conc.	%Rec.	
C9-C12	150	0	150	100	
C12-C16	100	8908	8933	25	*
C16-C21	150	27758	30613	1903	*
C21-C40	500	9609	11848	448	*

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 09273-008MS
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: UB4472.D

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 11.9

Compound	Conc. Add	Sample	MS Conc.	%Rec.	
C10-C12	100	0	69	69	
C12-C16	150	369	431	41	
C16-C21	250	5257	5333	30	*
C21-C36	400	1355	1370	4	*

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: SW-207
Date Received: 09/19/2013
Date Extracted: 09/23/2013
Lab ID: 09273-008
Sample wt/vol: 5.00g
Date Analyzed: 09/24/2013
Aliphatics Sample Data file: U6386.D
Dilution Factor: 5
Date Analyzed: 09/24/2013
Aromatics Sample Data file: UB4461.D
Dilution Factor: 1

GC Column: HP-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.9
Lab ID: 09273-8D
Sample wt/vol: 5.00g
Date Analyzed: 09/25/2013
Aliphatics Sample Dup Data file: U6396.D
Dilution Factor: 5
Date Analyzed: 09/25/2013
Aromatics Sample Dup Data file: UB4471.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NC
C12-C16 Aliphatics	2020	1900	6
C16-C21 Aliphatics	6300	5750	9
C21-C40 Aliphatics	2180	2100	4
Total Aliphatics	10500	9750	7
C10-C12 Aromatics	ND	ND	NC
C12-C16 Aromatics	83.8	71.9	15
C16-C21 Aromatics	1190	1100	8
C21-C36 Aromatics	308	265	15
Total Aromatics	1580	1440	9
Total NJ-EPH	12100	11200	8

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NC Not calculable

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID: U6383.D

Instrument ID: GC-U

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 16:31

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS130923-15	09/24/2013	17:05
ALI	LCSDS130923-15	09/24/2013	17:38
SW-207	09273-008	09/24/2013	18:11
G-41/1.5	09263-002	09/24/2013	18:45
AOC-2-4/	09135-004	09/24/2013	19:51
C-2_LOAD	09196-002	09/24/2013	20:25
C-3_BLD_	09196-003	09/24/2013	21:31
C-4_IMP.	09196-004	09/24/2013	22:05
C-5_SPHI	09196-005	09/24/2013	23:11
AOC-7-2/	09197-004	09/24/2013	23:45
AOC-7-3/	09197-005	09/25/2013	00:51
AOC-7-4/	09197-006	09/25/2013	01:58
SW-207	09273-8D	09/25/2013	03:04
ALI	09273-008MS	09/25/2013	03:37

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: UB4458.D

Instrument ID: GC-U

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 16:31

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS130923-15	09/24/2013	17:05
ARO	LCSDS130923-15	09/24/2013	17:38
SW-207	09273-008	09/24/2013	18:11
G-41/1.5	09263-002	09/24/2013	18:45
AOC-2-4/	09135-004	09/24/2013	19:18
C-2_LOAD	09196-002	09/24/2013	20:25
C-3_BLD_	09196-003	09/24/2013	20:58
C-4_IMP.	09196-004	09/24/2013	22:05
C-5_SPHI	09196-005	09/24/2013	22:38
AOC-7-2/	09197-004	09/24/2013	23:45
AOC-7-3/	09197-005	09/25/2013	00:51
AOC-7-4/	09197-006	09/25/2013	01:58
SW-207	09273-8D	09/25/2013	03:04
ARO	09273-008MS	09/25/2013	03:37

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** HP-5

Surrogate RT from initial calibration :

COD 11.67

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS130923-15	09/24/2013	16:31	11.67	
ALI	LCSS130923-15	09/24/2013	17:05	11.67	
ALI	LCSDS130923-15	09/24/2013	17:38	11.67	
SW-207	09273-008	09/24/2013	18:11	11.69	
G-41/1.5	09263-002	09/24/2013	18:45	11.67	
AOC-2-4/	09135-004	09/24/2013	19:51	11.68	
C-2_LOAD	09196-002	09/24/2013	20:25	11.68	
C-3_BLD_	09196-003	09/24/2013	21:31	11.68	
C-4_IMP.	09196-004	09/24/2013	22:05	11.67	
C-5_SPHI	09196-005	09/24/2013	23:11	11.68	
AOC-7-2/	09197-004	09/24/2013	23:45	11.67	
AOC-7-3/	09197-005	09/25/2013	00:51	11.67	
AOC-7-4/	09197-006	09/25/2013	01:58	11.67	
SW-207	09273-8D	09/25/2013	03:04	11.69	
ALI	09273-008MS	09/25/2013	03:37	11.69	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** HP-5

Surrogate RT from initial calibration :

FBP 4.30 **BNP** 5.32 **OTP** 9.54

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS130923-15	09/24/2013	16:31	4.30		5.32		9.54	
ARO	LCSS130923-15	09/24/2013	17:05	4.30		5.30		9.54	
ARO	LCSDS130923-15	09/24/2013	17:38	4.30		5.30		9.54	
SW-207	09273-008	09/24/2013	18:11	4.30		5.31		9.56	
G-41/1.5	09263-002	09/24/2013	18:45	4.30		5.31		9.54	
AOC-2-4/	09135-004	09/24/2013	19:18	4.29		5.30		9.55	
C-2_LOAD	09196-002	09/24/2013	20:25	4.30		5.30		9.54	
C-3_BLD_	09196-003	09/24/2013	20:58	4.30		5.31		9.54	
C-4_IMP.	09196-004	09/24/2013	22:05	4.30		5.30		9.54	
C-5_SPHI	09196-005	09/24/2013	22:38	4.30		5.31		9.54	
AOC-7-2/	09197-004	09/24/2013	23:45	4.30		5.30		9.54	
AOC-7-3/	09197-005	09/25/2013	00:51	4.29		5.30		9.55	
AOC-7-4/	09197-006	09/25/2013	01:58	4.29		5.29		9.55	
SW-207	09273-8D	09/25/2013	03:04	4.29		5.30		9.55	
ARO	09273-008MS	09/25/2013	03:37	4.29		5.29		9.56	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

Lab ID: LCSS130923-15
Lab ID: LCSDS130923-15

Fraction Data file:
Aliphatic U6384.D
Aliphatic U6385.D

Fraction Data file:
Aromatic UB4459.D
Aromatic UB4460.D

Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	36.8	0.0	0.0	34.8	0.0	0.0	Pass
2-Methylnaphthalene	38.5	0.0	0.0	36.7	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6393.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 23:45
Operator : PSL
Sample : AOC-7-2/,09197-004,S,5.24g,17.8,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,5
ALS Vial : 13 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:22:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.67	1900318	4.541 ng m
Spiked Amount 50.000		Recovery =	9.08%
Target Compounds			
21) H C12-C16	5.20	127473003	209.907 ng
22) H C16-C21	9.65	302603852	542.220 ng
23) H C21-C40	18.70	1271863242	2162.905 ng

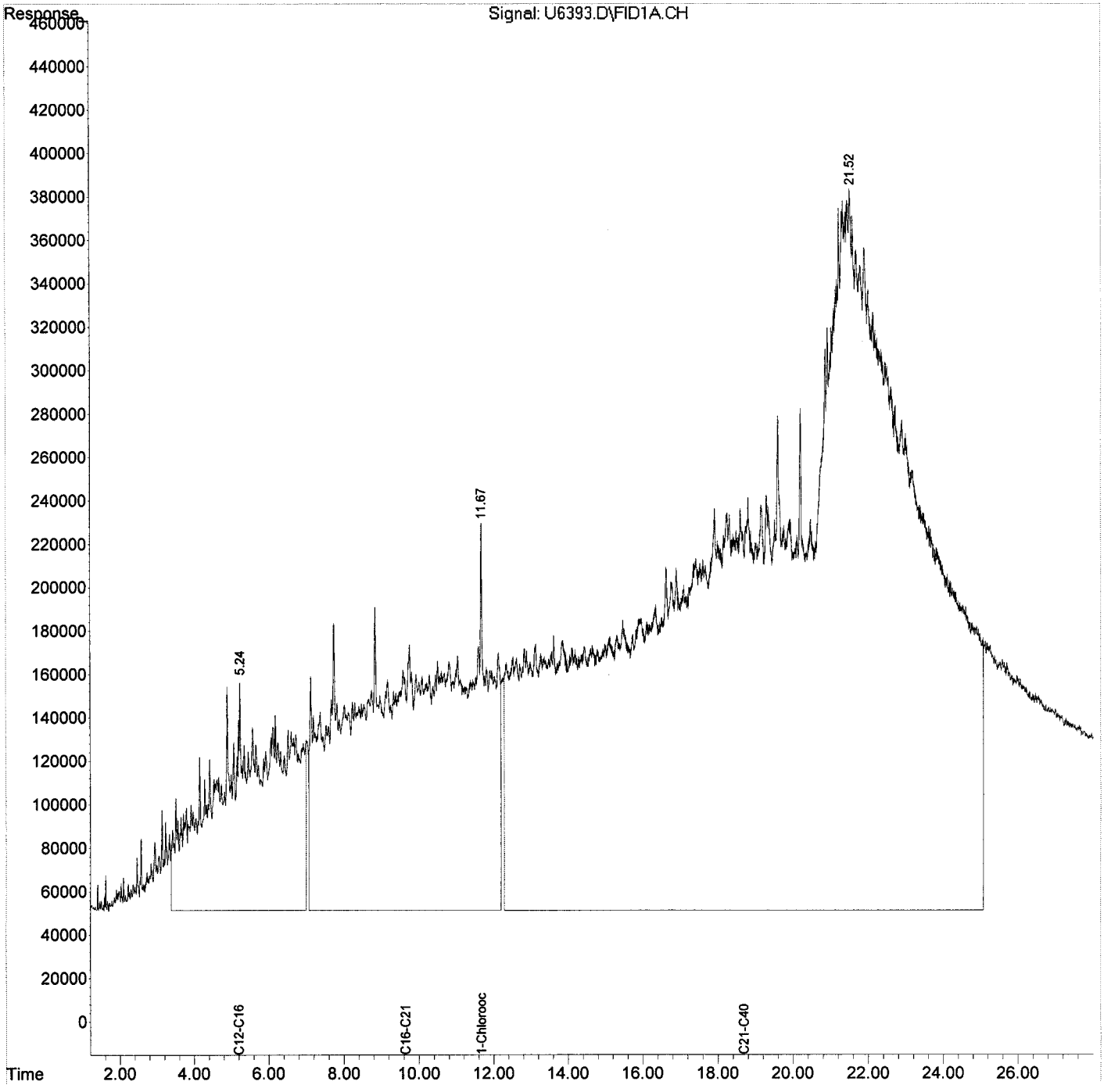
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6393.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 23:45
Operator : PSL
Sample : AOC-7-2/,09197-004,S,5.24g,17.8,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,5
ALS Vial : 13 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:22:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4468.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 23:45
Operator : PSL
Sample : AOC-7-2/,09197-004,S,5.24g,17.8,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:20:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.30	42207861	48.338	ng	
Spiked Amount	50.000		Recovery =	96.68%		
2) S	2-Bromonaphthalene	5.30	26052795	48.174	ng	m
Spiked Amount	50.000		Recovery =	96.35%		
3) S	o-Terphenyl	9.54	25098741	34.629	ng	m
Spiked Amount	50.000		Recovery =	69.26%		
	Target Compounds					
23) H	C12-C16	4.95	134013999	163.789	ng	
24) H	C16-C21	9.60	1749027929	2042.496	ng	
25) H	C21-C36	17.20	5526718399	6230.015	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

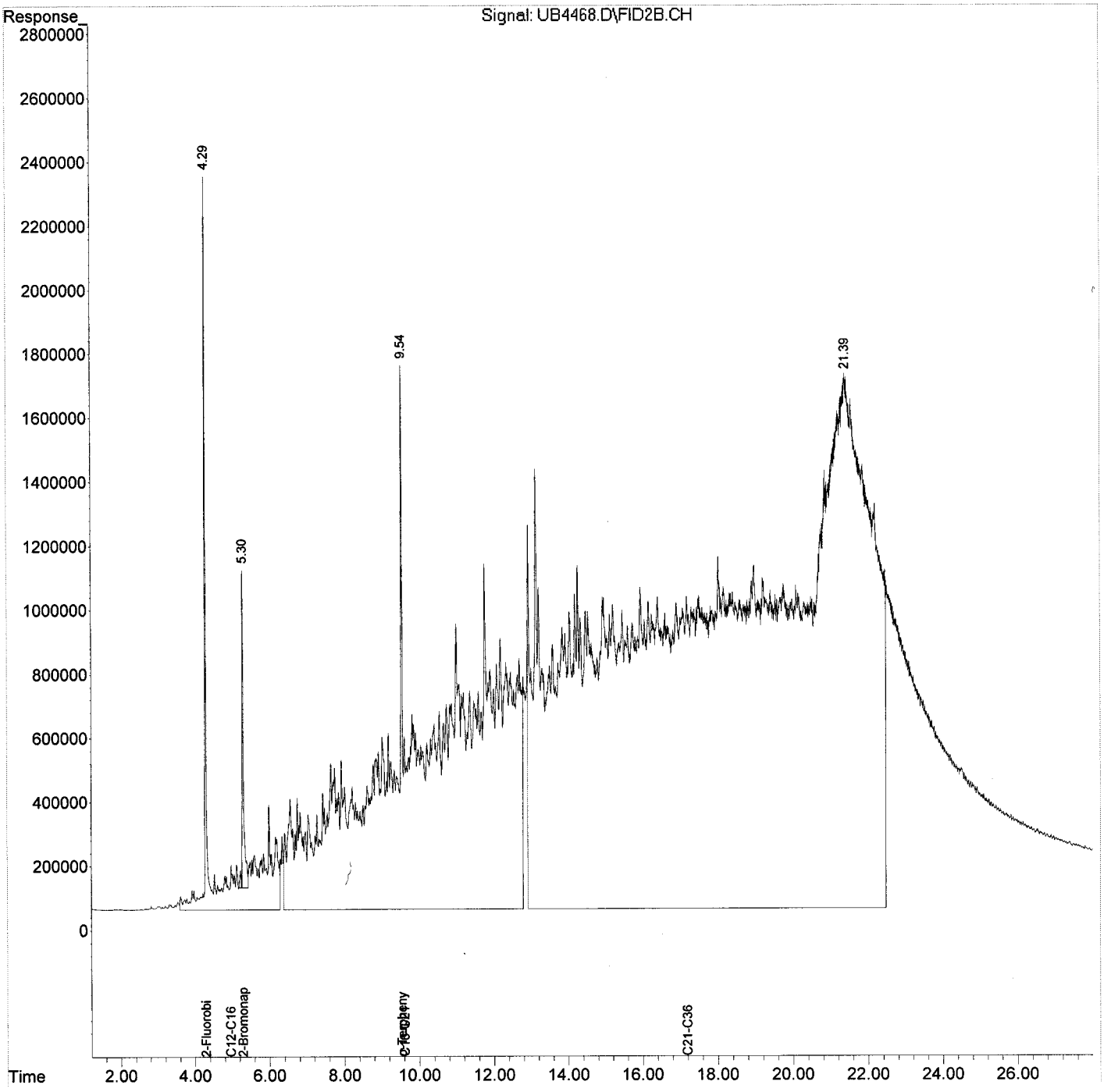
L

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4468.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 23:45
Operator : PSL
Sample : AOC-7-2/,09197-004,S,5.24g,17.8,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:20:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09197-0422

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6394.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 00:51
Operator : PSL
Sample : AOC-7-3/,09197-005,S,5.00g,25.6,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,5
ALS Vial : 14 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:24:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1-Chlorooctadecane	11.67	1926640	4.604	ng	m
Spiked Amount	50.000		Recovery =	9.21%		
Target Compounds						
20) H	C9-C12	2.25	18287517	31.568	ng	
21) H	C12-C16	5.20	158590915	261.148	ng	
22) H	C16-C21	9.65	282785155	506.708	ng	
23) H	C21-C40	18.70	1041177270	1770.605	ng	

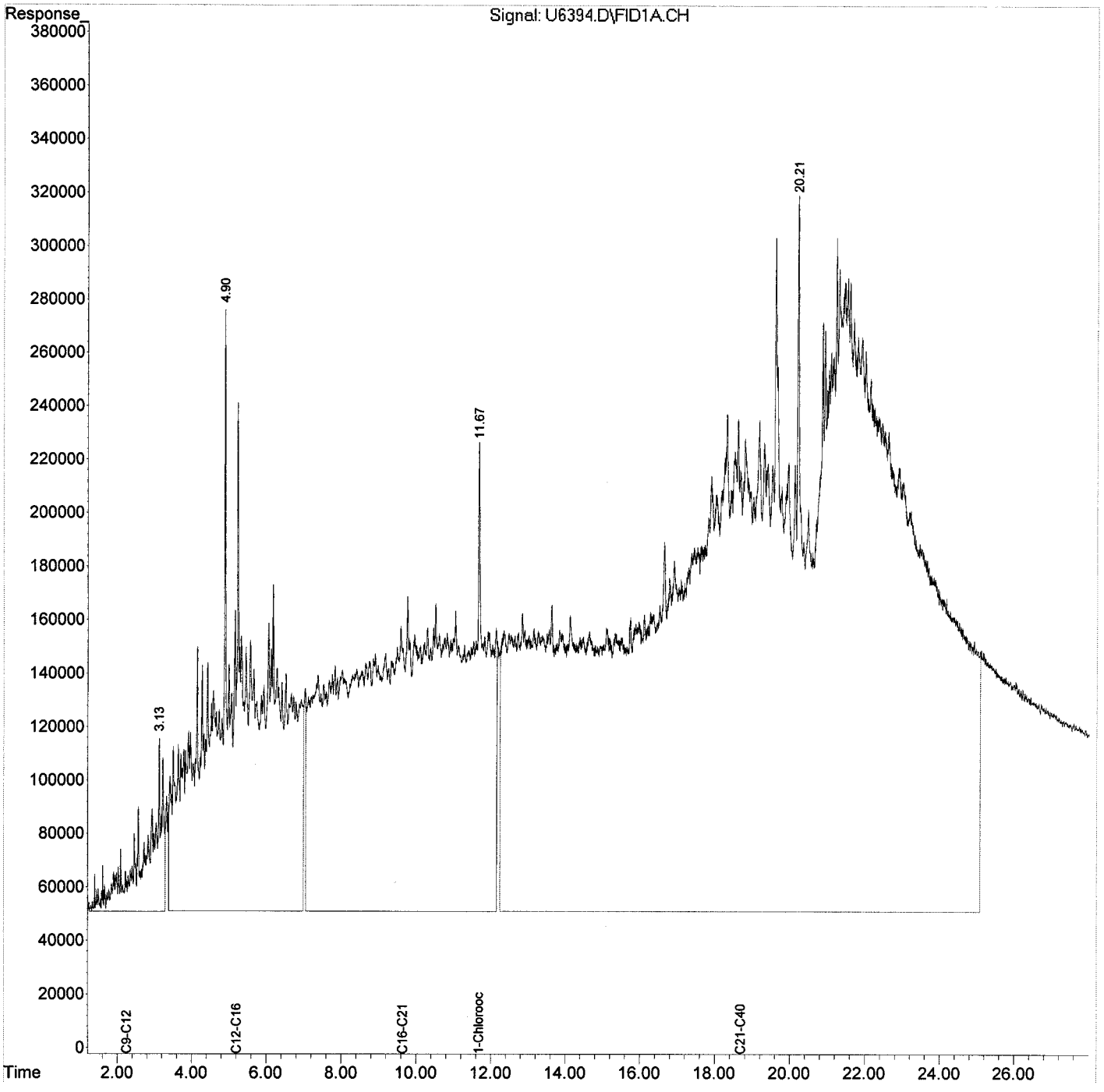
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : U6394.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 00:51
Operator : PSL
Sample : AOC-7-3/,09197-005,S,5.00g,25.6,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,5
ALS Vial : 14 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:24:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4469.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 00:51
Operator : PSL
Sample : AOC-7-3/,09197-005,S,5.00g,25.6,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 64 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:22:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.29	46083702	52.776 ng	
Spiked Amount 50.000		Recovery =	105.55%	
2) S 2-Bromonaphthalene	5.30	24483917	45.273 ng	
Spiked Amount 50.000		Recovery =	90.55%	
3) S o-Terphenyl	9.55	32241948	44.485 ng	m
Spiked Amount 50.000		Recovery =	88.97%	
Target Compounds				
23) H C12-C16	4.95	151910439	185.661 ng	
24) H C16-C21	9.60	1830099134	2137.170 ng	
25) H C21-C36	17.20	6371203948	7181.965 ng	

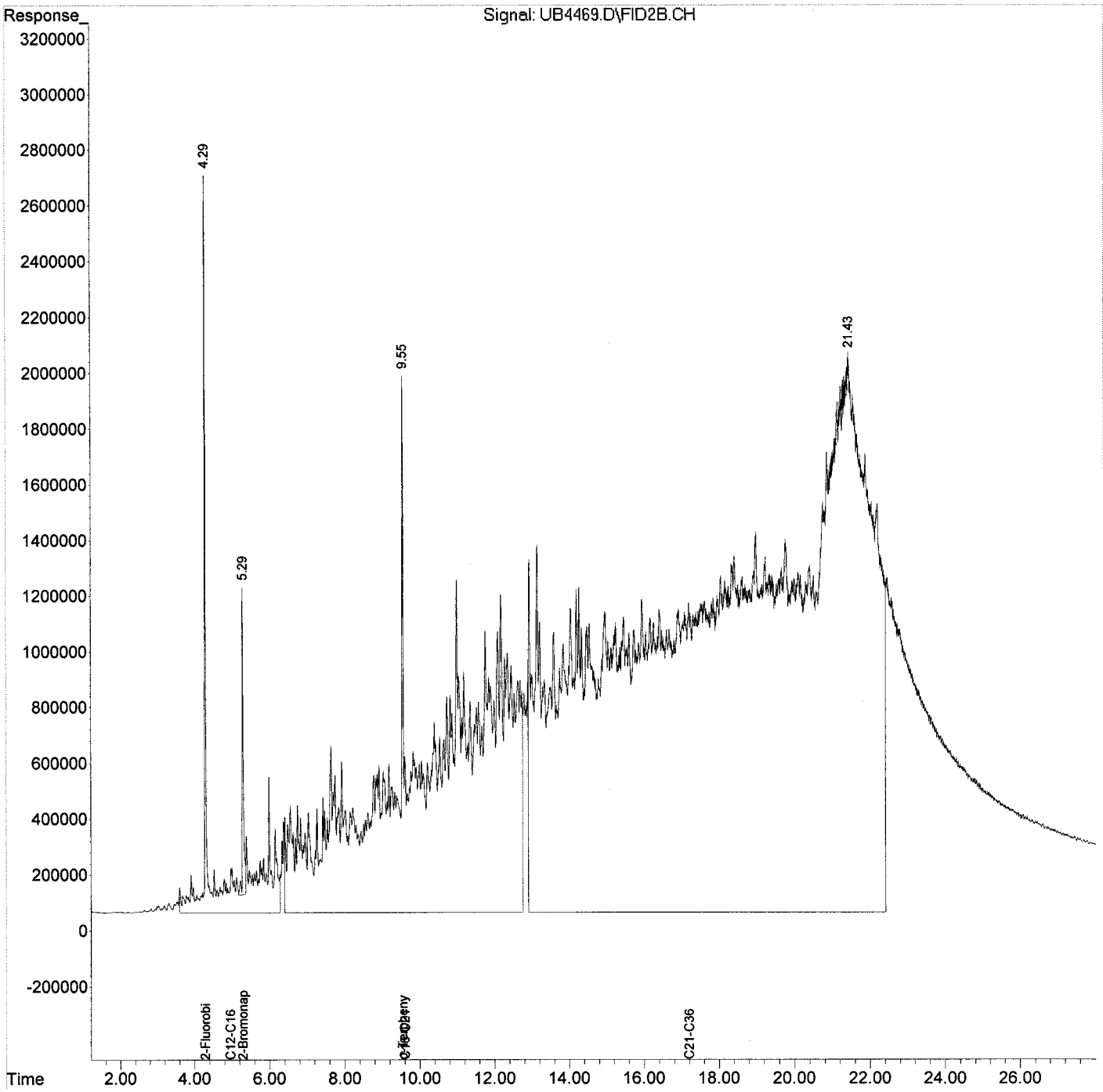
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4469.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 00:51
Operator : PSL
Sample : AOC-7-3/,09197-005,S,5.00g,25.6,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 64 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:22:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09197 0426

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6395.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 1:58
Operator : PSL
Sample : AOC-7-4/,09197-006,S,5.08g,26.7,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,10
ALS Vial : 15 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:47:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1-Chlorooctadecane	11.67	1187925	2.838	ng	m
Spiked Amount	50.000		Recovery =	5.68%		
Target Compounds						
20) H	C9-C12	2.25	19900645	34.353	ng	
21) H	C12-C16	5.20	174814768	287.864	ng	
22) H	C16-C21	9.65	313238220	561.275	ng	
23) H	C21-C40	18.70	1108614467	1885.288	ng	

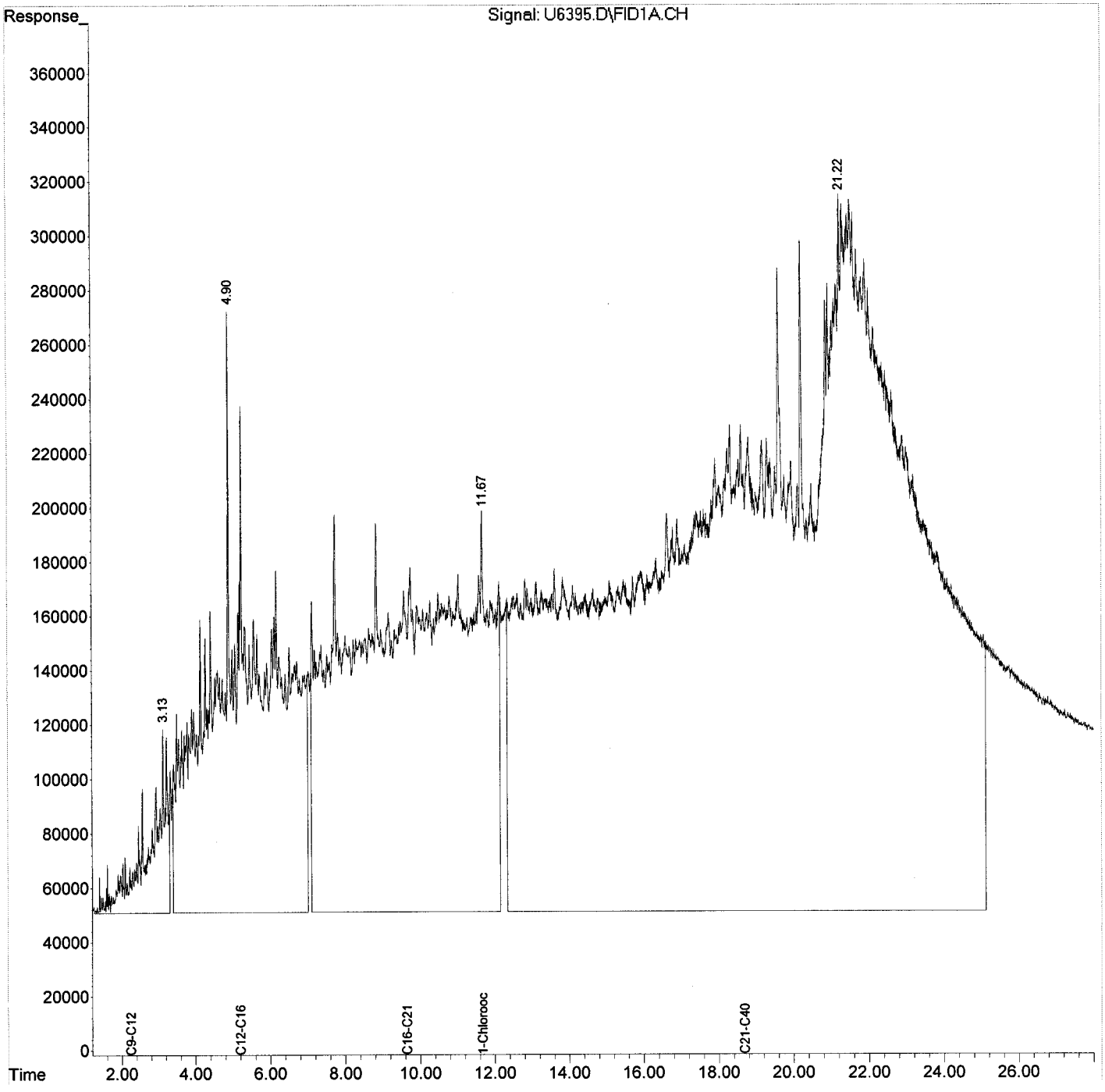
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6395.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 1:58
Operator : PSL
Sample : AOC-7-4/,09197-006,S,5.08g,26.7,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,10
ALS Vial : 15 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:47:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4470.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 1:58
Operator : PSL
Sample : AOC-7-4/,09197-006,S,5.08g,26.7,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 65 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 07:56:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.29	39842113	45.628 ng m
Spiked Amount 50.000		Recovery =	91.26%
2) S 2-Bromonaphthalene	5.29	21689468	40.106 ng m
Spiked Amount 50.000		Recovery =	80.21%
3) S o-Terphenyl	9.55	32359739	44.647 ng m
Spiked Amount 50.000		Recovery =	89.29%
Target Compounds			
22) H C10-C12	2.70	19862177	27.817 ng
23) H C12-C16	4.95	335618352	410.185 ng
24) H C16-C21	9.60	3787700581	4423.236 ng
25) H C21-C36	17.20	10317056048	11629.942 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

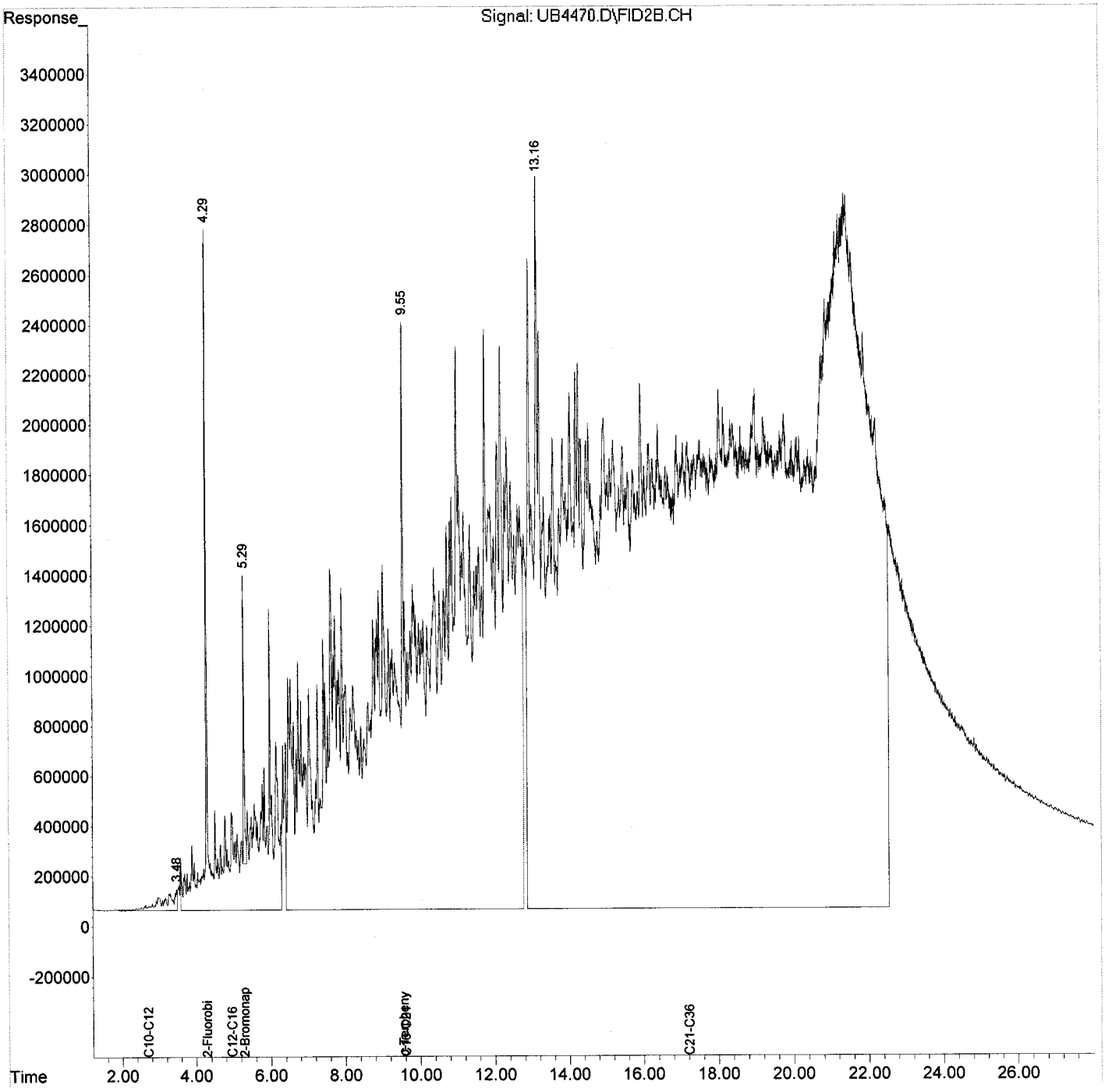
E13-09197 0429

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4470.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 1:58
Operator : PSL
Sample : AOC-7-4/,09197-006,S,5.08g,26.7,09/23/13,1
Misc : 130923-15,09/17/13,09/18/13,1
ALS Vial : 65 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 07:56:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U
GC Column : HP-5

Data File: U6157.D U6156.D U6155.D U6154.D U6153.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.29	1.29	1.29	1.29	1.30	1.29	1.22	1.36
n-Decane (C10)	1.78	1.78	1.79	1.79	1.80	1.79	1.72	1.86
n-Dodecane (C12)	3.05	3.04	3.05	3.06	3.07	3.06	2.98	3.14
n-Tetradecane (C14)	4.64	4.64	4.65	4.67	4.68	4.66	4.57	4.75
n-Hexadecane (C16)	6.62	6.63	6.64	6.66	6.68	6.65	6.54	6.76
n-Octadecane (C18)	8.76	8.77	8.78	8.80	8.83	8.79	8.67	8.91
n-Eicosane (C20)	10.85	10.85	10.87	10.89	10.92	10.88	10.76	11.00
n-Heneicosane (C21)	11.84	11.85	11.87	11.89	11.93	11.88	11.74	12.02
n-Docosane (C22)	12.80	12.81	12.83	12.85	12.89	12.84	12.70	12.98
n-Tetracosane (C24)	14.63	14.63	14.65	14.68	14.72	14.66	14.51	14.81
n-Hexacosane (C26)	16.32	16.33	16.35	16.37	16.41	16.35	16.20	16.50
n_Octacosane (C28)	17.90	17.91	17.93	17.95	17.99	17.94	17.79	18.09
n-Triacontane (C30)	19.37	19.38	19.41	19.43	19.48	19.41	19.26	19.56
n-Dotriacontane (C32)	20.74	20.75	20.77	20.79	20.83	20.78	20.66	20.90
n-Tetratriacontane (C34)	21.57	21.58	21.59	21.60	21.63	21.59	21.47	21.71
n-Hexatriacontane (C36)	22.33	22.34	22.36	22.38	22.41	22.36	22.21	22.51
n-Octatriacontane (C38)	23.26	23.28	23.30	23.33	23.36	23.31	23.16	23.46
n-Tetracontane (40)	24.47	24.49	24.52	24.56	24.61	24.53	24.38	24.68
C9-C12	2.25	2.25	2.25	2.25	2.25	2.25	2.15	2.35
C12-C16	5.20	5.20	5.20	5.20	5.20	5.20	5.10	5.30
C16-C21	9.65	9.65	9.65	9.65	9.65	9.65	9.54	9.76
C21-C40	18.70	18.70	18.70	18.70	18.70	18.70	18.59	18.81

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U
GC Column : HP-5

Data File: U6157.D U6156.D U6155.D U6154.D U6153.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	20	100	250	500	1000		
n-Nonane (C9)	499988	575699	566240	552043	541608	547115	5.37
n-Decane (C10)	519216	588869	582177	567892	561432	563917	4.84
n-Dodecane (C12)	526461	606946	607601	586815	579223	581409	5.70
n-Tetradecane (C14)	527770	620823	622924	588463	579259	587848	6.59
n-Hexadecane (C16)	537015	610572	609980	567550	559629	576949	5.62
n-Octadecane (C18)	528277	582546	580707	538505	540212	554049	4.62
n-Eicosane (C20)	514145	558197	557428	522046	543011	538965	3.74
n-Heneicosane (C21)	510035	551150	550658	517928	543127	534580	3.61
n-Docosane (C22)	492566	535492	537903	515079	556339	527476	4.62
n-Tetracosane (C24)	465821	513434	522594	521753	566575	518035	6.92
n-Hexacosane (C26)	441227	493661	514427	534137	569092	510509	9.34
n_Octacosane (C28)	428208	491903	532060	546621	573163	514391	10.97
n-Triacontane (C30)	428882	507429	552810	559737	579714	525714	11.46
n-Dotriacontane (C32)	452383	540744	577377	577401	593912	548364	10.41
n-Tetratriacontane (C34)	474808	559182	584182	580427	594736	558667	8.70
n-Hexatriacontane (C36)	494772	575937	595512	589258	603087	571713	7.72
n-Octatriacontane (C38)	488578	568203	584919	577821	590713	562047	7.46
n-Tetracontane (40)	453938	552714	569823	562875	575810	543032	9.31
C9-C12	1703973	1809003	1770181	1716565	1689849	1737914	2.88
C12-C16	1223487	1265193	1255790	1173985	1154377	1214566	4.04
C16-C21	1667123	1738580	1719676	1599882	1645983	1674249	3.35
C21-C40	6381912	5722113	5751623	5677082	5869003	5880347	4.92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6153.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ALI_L5_IAS_4667,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:43:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.76	436473363	1042.916 ng
Spiked Amount	50.000		Recovery	= 2085.83%
24) S	o-Terphenyl	9.77	566805157	982.993 ng
Spiked Amount	50.000		Recovery	= 1965.99%
25) S	Naphthalene	3.00	619259304	1011.777 ng
Spiked Amount	50.000		Recovery	= 2023.55%
26) S	2-Methylnaphthalene	3.84	639240274	1014.195 ng
Spiked Amount	50.000		Recovery	= 2028.39%
	Target Compounds			
2) T	n-Nonane (C9)	1.30	541607514	989.933 ng
3) T	n-Decane (C10)	1.80	561431891	995.593 ng
4) T	n-Dodecane (C12)	3.07	579223329	996.241 ng
5) T	n-Tetradecane (C14)	4.68	579259255	985.390 ng
6) T	n-Hexadecane (C16)	6.68	559628945	969.980 ng
7) T	n-Octadecane (C18)	8.83	540211847	975.025 ng
8) T	n-Eicosane (C20)	10.92	543011484	1007.507 ng
9) T	n-Heneicosane (C21)	11.93	543126835	1015.988 ng
10) T	n-Docosane (C22)	12.89	556338936	1054.719 ng
11) T	n-Tetracosane (C24)	14.72	566575242	1093.700 ng
12) T	n-Hexacosane (C26)	16.41	569092121	1114.755 ng
13) T	n-Octacosane (C28)	17.99	573163019	1114.256 ng
14) T	n-Triacontane (C30)	19.48	579714493	1102.718 ng
15) T	n-Dotriacontane (C32)	20.83	593912209	1083.063 ng
16) T	n-Tetratriacontane (C34)	21.63	594735698	1064.562 ng
17) T	n-Hexatriacontane (C36)	22.41	603087162	1054.877 ng
18) T	n-Octatriacontane (C38)	23.36	590713318	1051.004 ng
19) T	n-Tetracontane (C40)	24.61	575810093	1060.361 ng
20) H	C9-C12	2.25	1689849312	2917.030 ng
21) H	C12-C16	5.20	1154377036	1900.888 ng
22) H	C16-C21	9.65	1645982501	2949.351 ng
23) H	C21-C40	18.70	5869003357	9980.710 ng

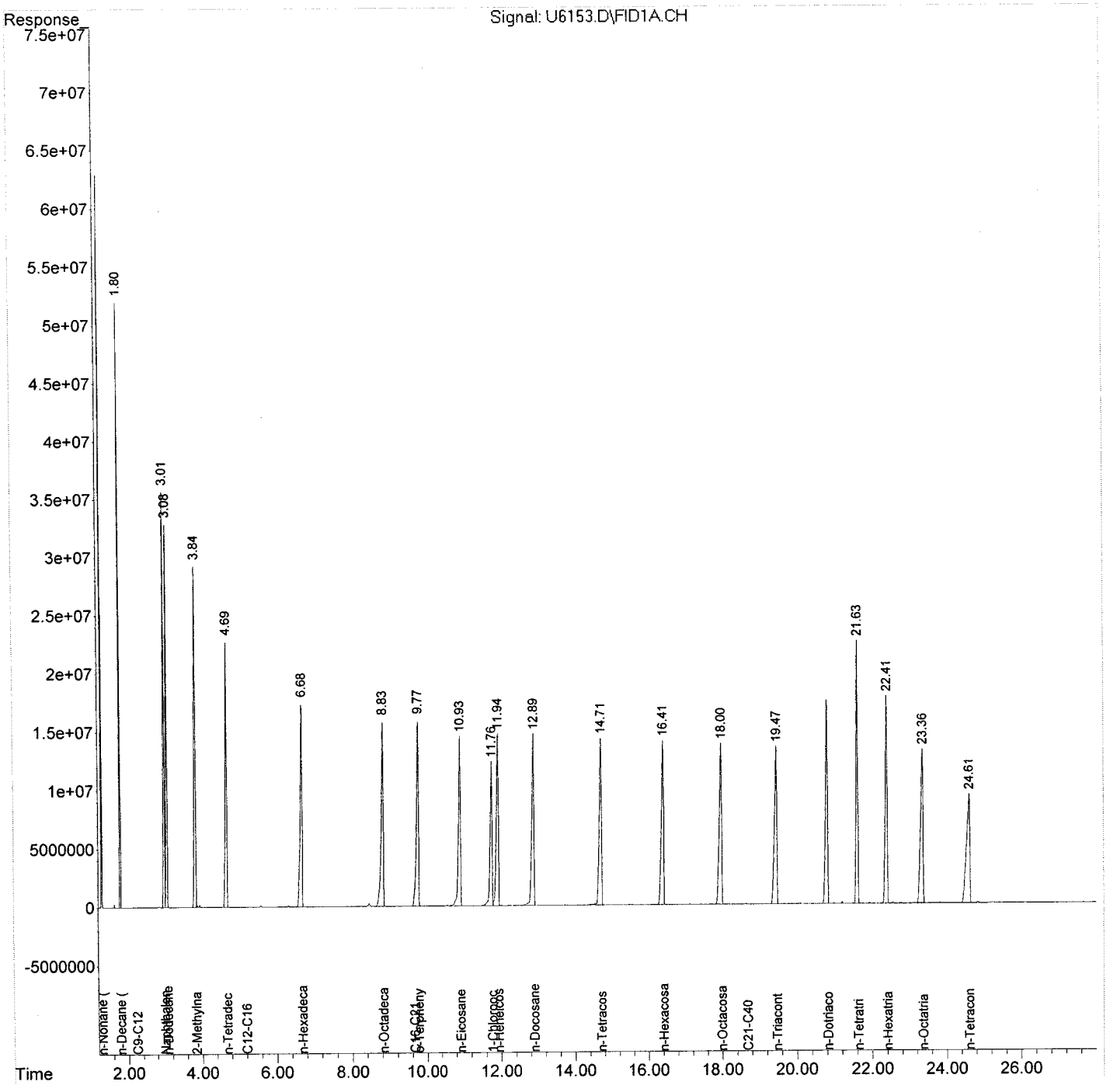
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6153.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ALI_L5_IAS_4667,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:43:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6154.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ALI_L4_IAS_4668,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.73	204816765	489.392 ng
Spiked Amount	50.000		Recovery	= 978.78%
24) S	o-Terphenyl	9.73	281366507	487.965 ng
Spiked Amount	50.000		Recovery	= 975.93%
25) S	Naphthalene	2.99	311116567	508.318 ng
Spiked Amount	50.000		Recovery	= 1016.64%
26) S	2-Methylnaphthalene	3.82	321898520	510.712 ng
Spiked Amount	50.000		Recovery	= 1021.42%
	Target Compounds			
2) T	n-Nonane (C9)	1.29	276021271	504.503 ng
3) T	n-Decane (C10)	1.79	283946143	503.524 ng
4) T	n-Dodecane (C12)	3.06	293407404	504.649 ng
5) T	n-Tetradecane (C14)	4.67	294231496	500.523 ng
6) T	n-Hexadecane (C16)	6.66	283775097	491.855 ng
7) T	n-Octadecane (C18)	8.80	269252447	485.972 ng
8) T	n-Eicosane (C20)	10.89	261023162	484.304 ng
9) T	n-Heneicosane (C21)	11.89	258964214	484.426 ng
10) T	n-Docosane (C22)	12.85	257539496	488.249 ng
11) T	n-Tetracosane (C24)	14.68	260876282	503.588 ng
12) T	n-Hexacosane (C26)	16.37	267068325	523.142 ng
13) T	n-Octacosane (C28)	17.95	273310488	531.328 ng
14) T	n-Triacontane (C30)	19.43	279868367	532.358 ng
15) T	n-Dotriacontane (C32)	20.79	288700273	526.476 ng
16) T	n-Tetratriacontane (C34)	21.60	290213720	519.475 ng
17) T	n-Hexatriacontane (C36)	22.38	294629066	515.344 ng
18) T	n-Octatriacontane (C38)	23.33	288910277	514.032 ng
19) T	n-Tetracontane (C40)	24.56	281437670	518.271 ng
20) H	C9-C12	2.25	858282585	1481.574 ng
21) H	C12-C16	5.20	586992589	966.588 ng
22) H	C16-C21	9.65	799941052	1433.373 ng
23) H	C21-C40	18.70	2838541245	4827.166 ng

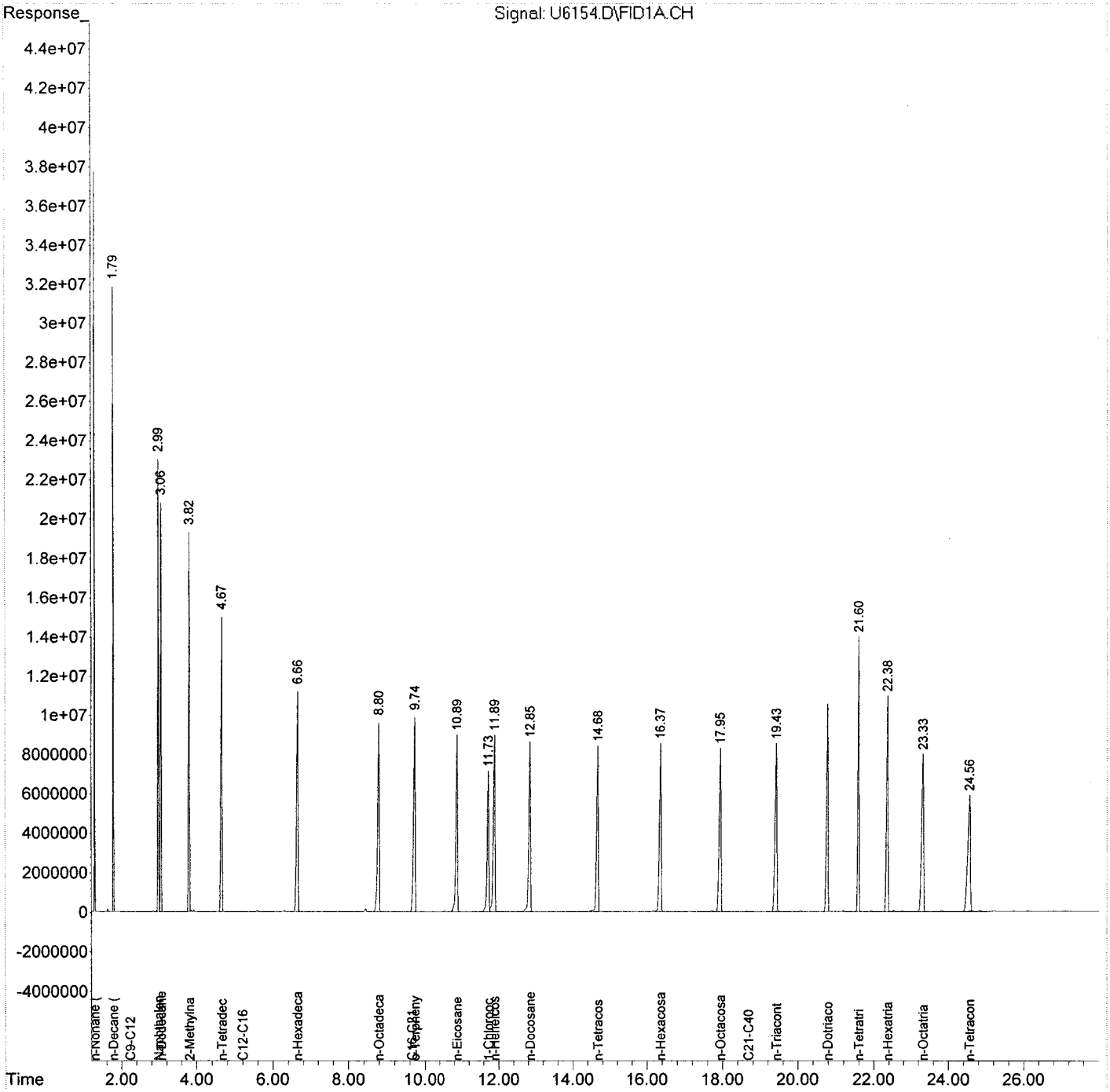
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6154.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ALI_L4_IAS_4668,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6155.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ALI_L3_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.71	107402094	256.628 ng
Spiked Amount 50.000		Recovery =	513.26%
24) S o-Terphenyl	9.72	150967638	261.819 ng
Spiked Amount 50.000		Recovery =	523.64%
25) S Naphthalene	2.98	159833248	261.143 ng
Spiked Amount 50.000		Recovery =	522.29%
26) S 2-Methylnaphthalene	3.81	166418181	264.033 ng
Spiked Amount 50.000		Recovery =	528.07%
Target Compounds			
2) T n-Nonane (C9)	1.29	141559977	258.739 ng
3) T n-Decane (C10)	1.79	145544317	258.095 ng
4) T n-Dodecane (C12)	3.05	151900155	261.262 ng
5) T n-Tetradecane (C14)	4.65	155731055	264.917 ng
6) T n-Hexadecane (C16)	6.64	152494916	264.313 ng
7) T n-Octadecane (C18)	8.78	145176716	262.028 ng
8) T n-Eicosane (C20)	10.87	139356979	258.564 ng
9) T n-Heneicosane (C21)	11.87	137664452	257.519 ng
10) T n-Docosane (C22)	12.83	134475740	254.942 ng
11) T n-Tetracosane (C24)	14.65	130648501	252.200 ng
12) T n-Hexacosane (C26)	16.35	128606723	251.919 ng
13) T n-Octacosane (C28)	17.93	133015058	258.587 ng
14) T n-Triacontane (C30)	19.41	138202383	262.885 ng
15) T n-Dotriacontane (C32)	20.77	144344350	263.227 ng
16) T n-Tetratriacontane (C34)	21.59	146045542	261.418 ng
17) T n-Hexatriacontane (C36)	22.36	148877950	260.407 ng
18) T n-Octatriacontane (C38)	23.30	146229801	260.174 ng
19) T n-Tetracontane (C40)	24.52	142455851	262.334 ng
20) H C9-C12	2.25	442545156	763.925 ng
21) H C12-C16	5.20	313947379	516.970 ng
22) H C16-C21	9.65	429919004	770.350 ng
23) H C21-C40	18.70	1437905785	2445.274 ng

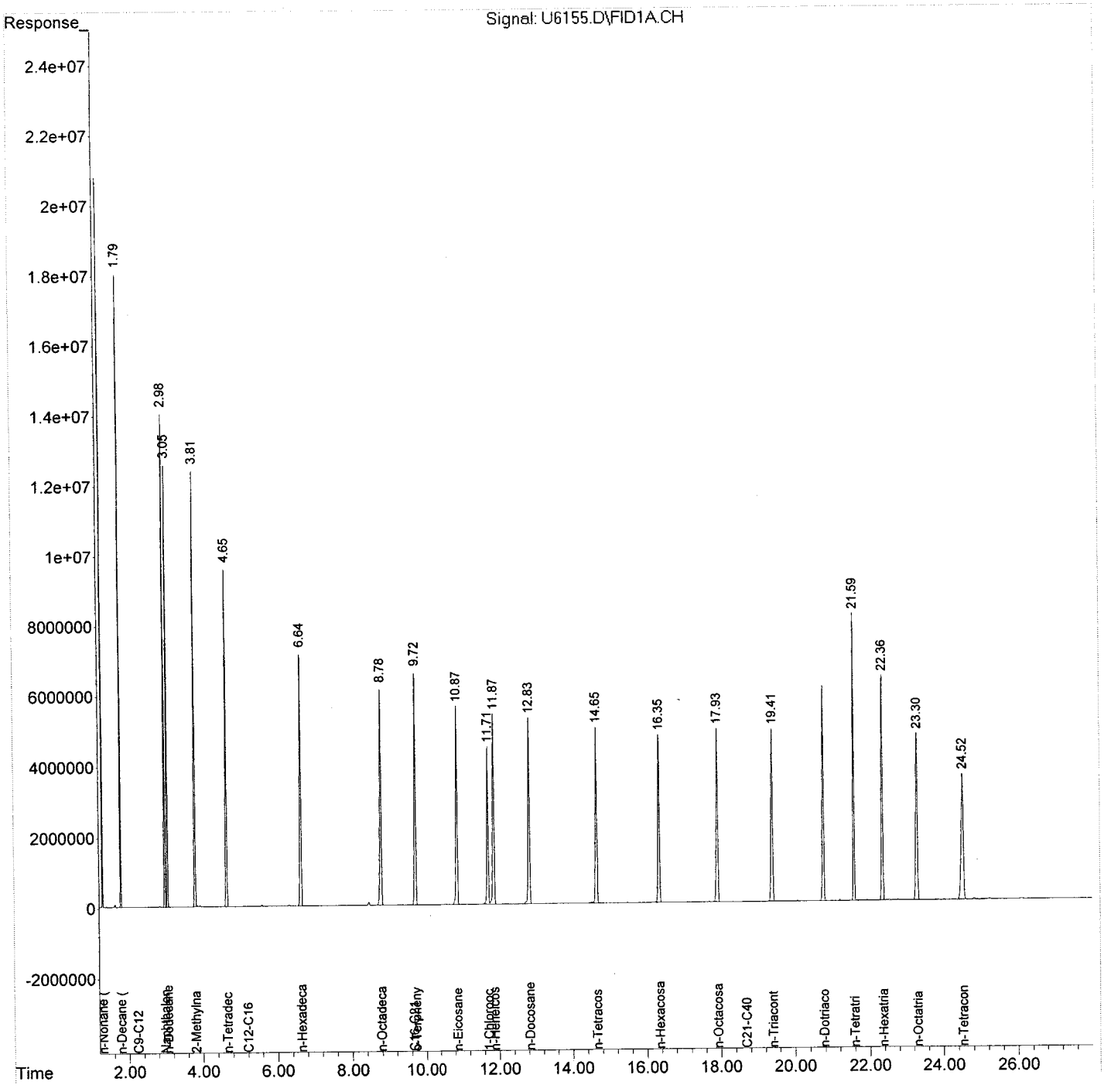
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6155.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ALI_L3_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6156.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ALI_L2_IAS_4670,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.69	42741511	102.127 ng
Spiked Amount 50.000		Recovery = 204.25%	
24) S o-Terphenyl	9.70	60473018	104.877 ng
Spiked Amount 50.000		Recovery = 209.75%	
25) S Naphthalene	2.97	63656337	104.005 ng
Spiked Amount 50.000		Recovery = 208.01%	
26) S 2-Methylnaphthalene	3.80	65571558	104.033 ng
Spiked Amount 50.000		Recovery = 208.07%	
Target Compounds			
2) T n-Nonane (C9)	1.29	57569922	105.224 ng
3) T n-Decane (C10)	1.78	58886943	104.425 ng
4) T n-Dodecane (C12)	3.04	60694563	104.392 ng
5) T n-Tetradecane (C14)	4.64	62082267	105.609 ng
6) T n-Hexadecane (C16)	6.63	61057207	105.828 ng
7) T n-Octadecane (C18)	8.77	58254593	105.143 ng
8) T n-Eicosane (C20)	10.85	55819676	103.568 ng
9) T n-Heneicosane (C21)	11.85	55115014	103.100 ng
10) T n-Docosane (C22)	12.81	53549232	101.520 ng
11) T n-Tetracosane (C24)	14.63	51343371	99.112 ng
12) T n-Hexacosane (C26)	16.33	49366124	96.700 ng
13) T n-Octacosane (C28)	17.91	49190277	95.628 ng
14) T n-Triacontane (C30)	19.38	50742913	96.522 ng
15) T n-Dotriacontane (C32)	20.75	54074419	98.611 ng
16) T n-Tetratriacontane (C34)	21.58	55918209	100.092 ng
17) T n-Hexatriacontane (C36)	22.34	57593688	100.739 ng
18) T n-Octatriacontane (C38)	23.28	56820339	101.095 ng
19) T n-Tetracontane (C40)	24.49	55271426	101.783 ng
20) H C9-C12	2.25	180900268	312.271 ng
21) H C12-C16	5.20	126519273	208.337 ng
22) H C16-C21	9.65	173857990	311.527 ng
23) H C21-C40	18.70	572211254	973.091 ng

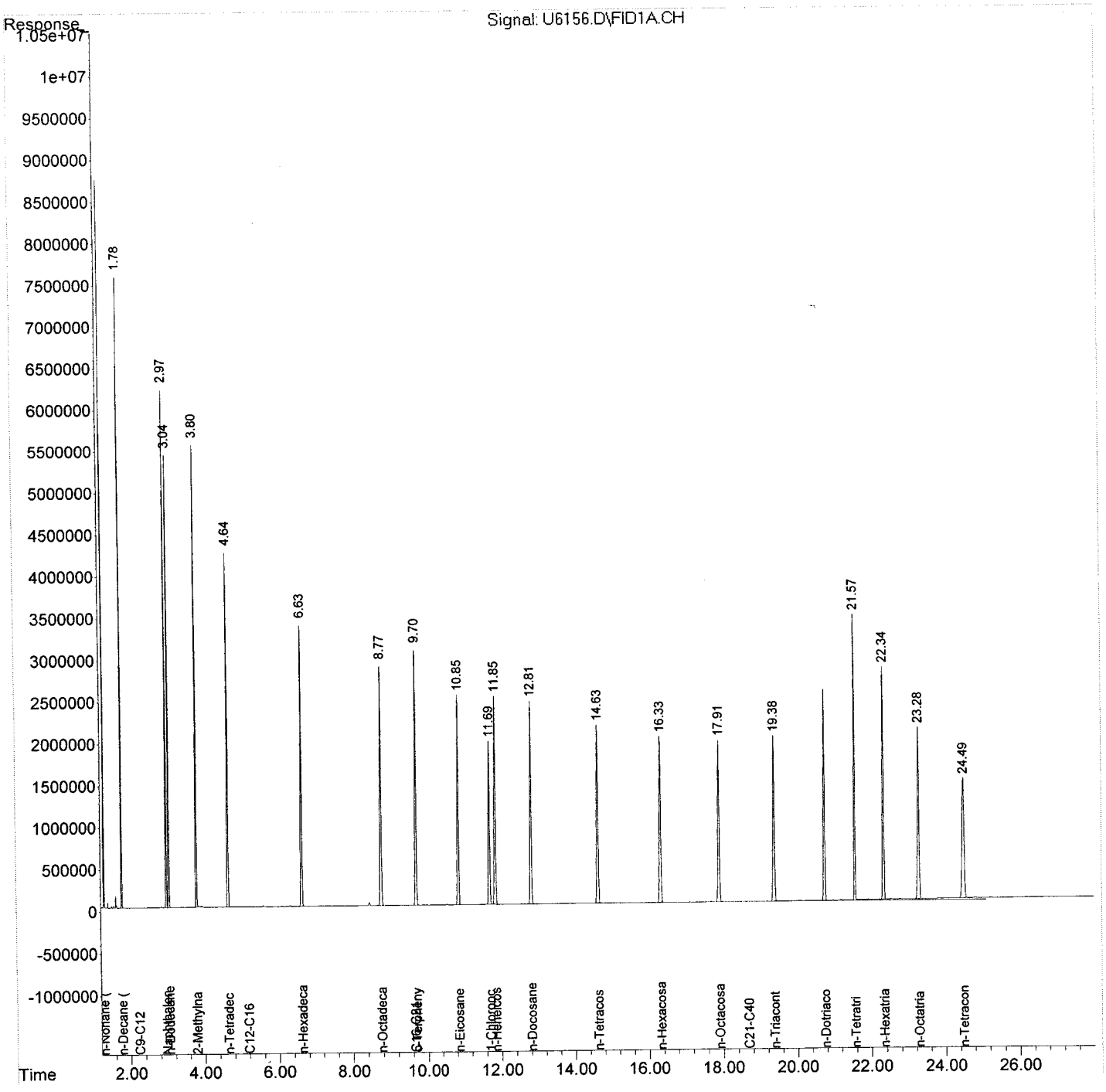
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6156.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ALI_L2_IAS_4670,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:38 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6157.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ALI_L1_IAS_4671.20_PPM
Misc : ,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.69	7788636	18.610 ng
Spiked Amount 50.000		Recovery =	37.22%
24) S o-Terphenyl	9.69	10898383	18.901 ng
Spiked Amount 50.000		Recovery =	37.80%
25) S Naphthalene	2.97	10857368	17.739 ng
Spiked Amount 50.000		Recovery =	35.48%
26) S 2-Methylnaphthalene	3.80	10940817	17.358 ng
Spiked Amount 50.000		Recovery =	34.72%
Target Compounds			
2) T n-Nonane (C9)	1.29	9999763	18.277 ng
3) T n-Decane (C10)	1.78	10384314	18.415 ng
4) T n-Dodecane (C12)	3.05	10529219	18.110 ng
5) T n-Tetradecane (C14)	4.64	10555405	17.956 ng
6) T n-Hexadecane (C16)	6.62	10740296	18.616 ng
7) T n-Octadecane (C18)	8.76	10565548	19.070 ng
8) T n-Eicosane (C20)	10.85	10282896	19.079 ng
9) T n-Heneicosane (C21)	11.84	10200707	19.082 ng
10) T n-Docosane (C22)	12.80	9851311	18.676 ng
11) T n-Tetracosane (C24)	14.63	9316426	17.984 ng
12) T n-Hexacosane (C26)	16.32	8824532	17.286 ng
13) T n-Octacosane (C28)	17.90	8564155	16.649 ng
14) T n-Triacontane (C30)	19.37	8577644	16.316 ng
15) T n-Dotriacontane (C32)	20.74	9047664	16.499 ng
16) T n-Tetratriacontane (C34)	21.57	9496158	16.998 ng
17) T n-Hexatriacontane (C36)	22.33	9895446	17.308 ng
18) T n-Octatriacontane (C38)	23.26	9771562	17.386 ng
19) T n-Tetracontane (C40)	24.47	9078754	16.719 ng
20) H C9-C12	2.25	34079465	58.828 ng
21) H C12-C16	5.20	24469736	40.294 ng
22) H C16-C21	9.65	33342456	59.745 ng
23) H C21-C40	18.70	127638248	217.059 ng

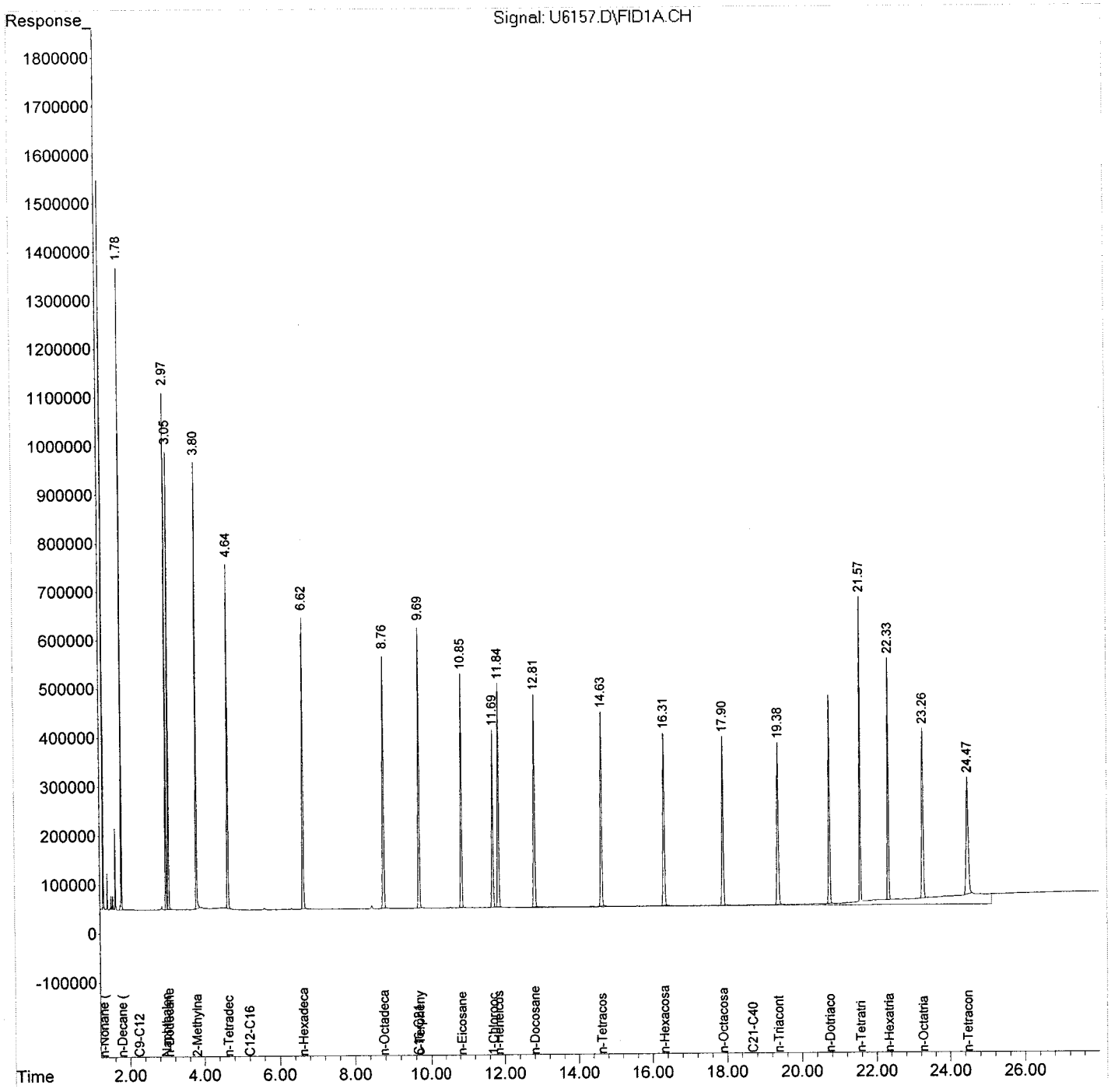
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6157.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ALI_L1_IAS_4671,20_PPM
Misc : ,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:42:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:42:15 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6158.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:52:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.72	107471186	256.793 ng
Spiked Amount	50.000		Recovery =	513.59%
24) S	o-Terphenyl	9.72	149942151	260.040 ng
Spiked Amount	50.000		Recovery =	520.08%
25) S	Naphthalene	2.99	159843086	261.160 ng
Spiked Amount	50.000		Recovery =	522.32%
26) S	2-Methylnaphthalene	3.82	166046447	263.443 ng
Spiked Amount	50.000		Recovery =	526.89%
	Target Compounds			
2) T	n-Nonane (C9)	1.30	141165683	258.018 ng
3) T	n-Decane (C10)	1.79	145486090	257.992 ng
4) T	n-Dodecane (C12)	3.06	151790134	261.073 ng
5) T	n-Tetradecane (C14)	4.66	154902029	263.507 ng
6) T	n-Hexadecane (C16)	6.65	151181819	262.037 ng
7) T	n-Octadecane (C18)	8.79	144151667	260.178 ng
8) T	n-Eicosane (C20)	10.88	139152763	258.185 ng
9) T	n-Heneicosane (C21)	11.88	137964348	258.080 ng
10) T	n-Docosane (C22)	12.84	135094400	256.115 ng
11) T	n-Tetracosane (C24)	14.66	131968193	254.747 ng
12) T	n-Hexacosane (C26)	16.35	129721076	254.102 ng
13) T	n-Octacosane (C28)	17.93	133801020	260.115 ng
14) T	n-Triacontane (C30)	19.41	138239027	262.955 ng
15) T	n-Dotriacontane (C32)	20.78	143913015	262.441 ng
16) T	n-Tetratriacontane (C34)	21.60	145552382	260.535 ng
17) T	n-Hexatriacontane (C36)	22.37	148365686	259.511 ng
18) T	n-Octatriacontane (C38)	23.31	145739611	259.302 ng
19) T	n-Tetracontane (C40)	24.54	141944599	261.393 ng
20) H	C9-C12	2.25	442139594	763.225 ng
21) H	C12-C16	5.20	311927936	513.645 ng
22) H	C16-C21	9.65	428766916	768.285 ng
23) H	C21-C40	18.70	1436815247	2443.419 ng

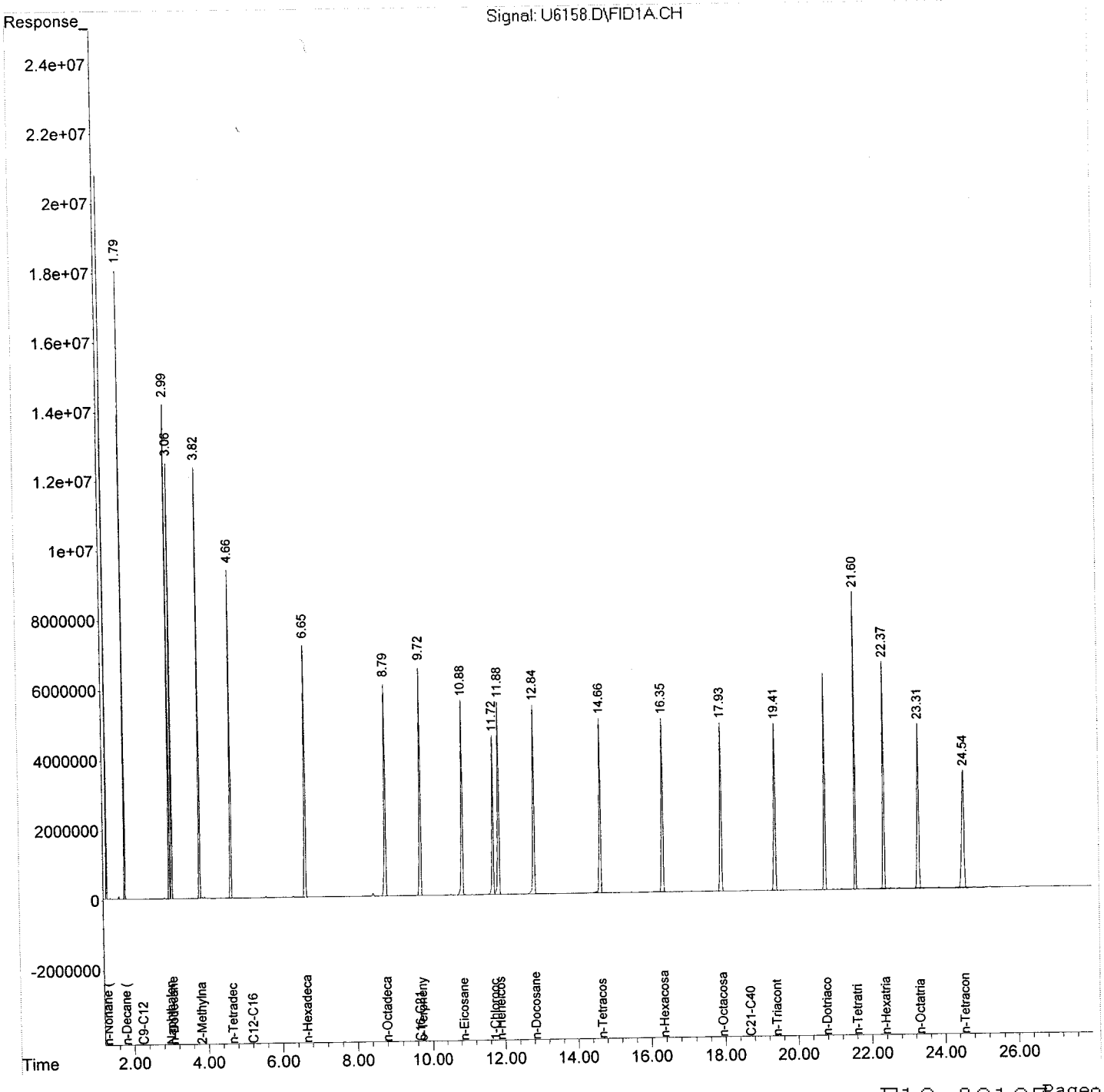
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-03-13\
Data File : U6158.D
Signal(s) : FID1A.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ALI_C_IAS_4669.250_PPM
Misc : ,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:52:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U

GC Column : HP-5

Data File: UB4232.D UB4231.D UB4230.D UB4229.D UB4228.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
1,2,3-Trimethylbenzene	1.91	1.90	1.90	1.90	1.91	1.91	1.79	2.03
Napthalene	2.99	2.94	2.94	2.94	2.95	2.95	2.83	3.07
2-Methylnaphthalene	3.80	3.75	3.75	3.75	3.77	3.76	3.64	3.88
Acenaphthylene	5.11	5.08	5.09	5.10	5.13	5.10	4.98	5.22
Acenaphthene	5.43	5.41	5.43	5.45	5.51	5.44	5.32	5.56
Fluorene	6.45	6.39	6.41	6.42	6.46	6.42	6.30	6.54
Phenanthrene	8.47	8.43	8.45	8.47	8.51	8.47	8.35	8.59
Anthracene	8.60	8.54	8.56	8.58	8.66	8.59	8.47	8.71
Fluoroanthene	11.33	11.28	11.30	11.32	11.38	11.32	11.20	11.44
Pyrene	11.83	11.78	11.80	11.83	11.90	11.83	11.71	11.95
Benzo[a]anthracene	14.90	14.86	14.89	14.92	14.99	14.91	14.79	15.03
Chrysene	15.01	14.95	14.99	15.03	15.13	15.02	14.90	15.14
Benzo[b]fluoranthene	17.54	17.45	17.56	17.60	17.71	17.57	17.45	17.69
Benzo[k]fluoranthene	17.54	17.45	17.56	17.60	17.71	17.57	17.45	17.69
Benzo[a]pyrene	18.23	18.12	18.15	18.20	18.32	18.20	18.08	18.32
Indeno[1,2,3-cd]pyrene	20.51	20.40	20.51	20.57	20.69	20.54	20.42	20.66
Dibenz[a,h]anthracene	20.51	20.40	20.51	20.57	20.69	20.54	20.42	20.66
Benzo[g,h,i]perylene	20.87	20.80	20.85	20.89	21.00	20.88	20.76	21.00
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	4.95	4.95	4.95	4.95	4.95	4.95	4.83	5.07
C16-C21	9.60	9.60	9.60	9.60	9.60	9.60	9.48	9.72
C21-C36	17.20	17.20	17.20	17.20	17.20	17.20	17.08	17.32

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/03/2013 **Instrument ID:** GC-U

GC Column : HP-5

Data File: UB4232.D UB4231.D UB4230.D UB4229.D UB4228.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	656651	608153	766709	644017	730176	681141	9.58
Napthalene	684270	641272	819811	683672	811005	728006	11.23
2-Methylnaphthalene	753227	686985	829065	689927	825365	756914	9.17
Acenaphthylene	778553	694544	877453	725685	865131	788273	10.36
Acenaphthene	725285	802434	927697	756283	882563	818853	10.37
Fluorene	828097	725743	904839	749713	893579	820394	9.92
Phenanthrene	715568	715881	914425	757401	910521	802759	12.66
Anthracene	935729	745471	915091	749730	892943	847793	10.94
Fluoroanthene	838926	757902	946388	781613	928367	850639	9.96
Pyrene	943007	776059	955439	763372	933217	874219	10.96
Benzo[a]anthracene	771856	702025	929031	777836	965370	829224	13.56
Chrysene	1004593	803629	903236	740017	828197	855934	11.87
Benzo[b]fluoranthene	1833506	1553705	1908202	1579356	1869109	1748775	9.65
Benzo[k]fluoranthene	1833506	1553705	1908202	1579356	1869109	1748775	9.65
Benzo[a]pyrene	935566	777317	955233	787542	927220	876576	9.88
Indeno[1,2,3-cd]pyrene	1472528	1425551	1823468	1529059	1823626	1614847	12.01
Dibenz[a,h]anthracene	1472528	1425551	1823468	1529059	1823626	1614847	12.01
Benzo[g,h,i]perylene	1041326	808471	958709	793000	927854	905872	11.56
C10-C12	1396530	1258442	1590621	1329759	1564971	1428065	10.18
C12-C16	2546649	2204035	2685998	2215700	2620813	2454639	9.32
C16-C21	4459229	3786955	4673045	3878333	4610413	4281595	9.77
C21-C36	7915497	6273517	7608551	6278714	7408183	7096892	10.86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4228.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ARO_L5_IAS_4661,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:18:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.36	955359900	1094.108	ng	
Spiked Amount	50.000		Recovery	= 2188.22%		
2) S	2-Bromonaphthalene	5.38	646688522	1203.882	ng	
Spiked Amount	50.000		Recovery	= 2407.76%		
3) S	o-Terphenyl	9.65	779891188	1076.028	ng	
Spiked Amount	50.000		Recovery	= 2152.06%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.91	730176227	1071.990	ng	
5) T	Napthalene	2.95	811004771	1114.008	ng	
6) T	2-Methylnaphthalene	3.77	825365373	1090.435	ng	
7) T	Acenaphthylene	5.13	865130842	1097.501	ng	
8) T	Acenaphthene	5.51	882563437	1042.233	ng	m
9) T	Fluorene	6.46	893579249	1089.207	ng	
10) T	Phenanthrene	8.51	910521449	1134.240	ng	
11) T	Anthracene	8.66	892943054	1054.505	ng	m
12) T	Fluoroanthene	11.38	928367082	1091.376	ng	
13) T	Pyrene	11.90	933217272	1067.487	ng	
14) T	Benzo[a]anthracene	14.99	965369828	1180.809	ng	
15) T	Chrysene	15.13	828196524	952.827	ng	m
16) T	Benzo[b]fluoranthene	17.71	1869108649	1068.810	ng	
17) T	Benzo[k]fluoranthene	17.71	1869108649	1068.810	ng	
18) T	Benzo[a]pyrene	18.32	927219995	1056.708	ng	m
19) T	Indeno[1,2,3-cd]pyrene	20.69	1823625958	1129.287	ng	
20) T	Dibenz[a,h]anthracene	20.69	1823625958	1129.287	ng	
21) T	Benzo[g,h,i]perylene	21.00	927854185	1024.266	ng	
22) H	C10-C12	2.70	1564971477	2198.669	ng	
23) H	C12-C16	4.95	2620813346	3199.363	ng	
24) H	C16-C21	9.60	4610413217	5382.616	ng	
25) H	C21-C36	17.20	7408182714	8350.903	ng	

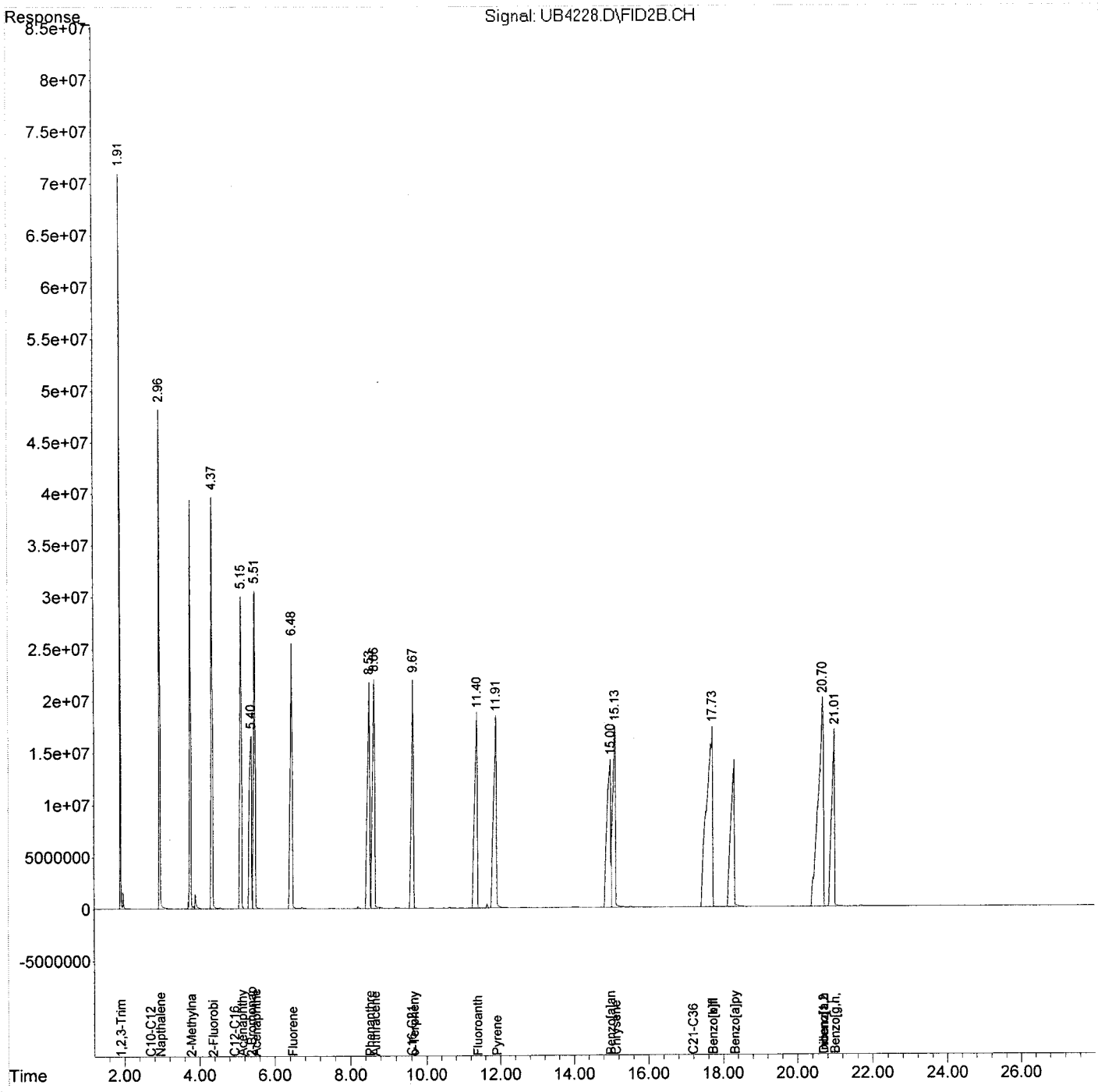
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4228.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 9:49
Operator : PSL
Sample : ARO_L5_IAS_4661,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:18:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4229.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ARO_L4_IAS_4662,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:19:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.33	400965744	459.198 ng
Spiked Amount	50.000		Recovery =	918.40%
2) S	2-Bromonaphthalene	5.34	264824295	492.999 ng
Spiked Amount	50.000		Recovery =	986.00%
3) S	o-Terphenyl	9.61	325321920	448.852 ng
Spiked Amount	50.000		Recovery =	897.70%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	322008315	472.748 ng
5) T	Napthalene	2.94	341836110	469.551 ng
6) T	2-Methylnaphthalene	3.75	344963499	455.750 ng
7) T	Acenaphthylene	5.10	362842360	460.300 ng
8) T	Acenaphthene	5.45	378141360	446.553 ng
9) T	Fluorene	6.42	374856694	456.923 ng
10) T	Phenanthrene	8.47	378700709	471.749 ng
11) T	Anthracene	8.58	374864999	442.690 ng
12) T	Fluoroanthene	11.32	390806728	459.427 ng
13) T	Pyrene	11.83	381685878	436.602 ng
14) T	Benzo[a]anthracene	14.92	388917937	475.712 ng
15) T	Chrysene	15.03	370008563	425.689 ng
16) T	Benzo[b]fluoranthene	17.60	789677822	451.560 ng
17) T	Benzo[k]fluoranthene	17.60	789677822	451.560 ng
18) T	Benzo[a]pyrene	18.20	393771083	448.762 ng
19) T	Indeno[1,2,3-cd]pyrene	20.57	764529746	473.438 ng
20) T	Dibenz[a,h]anthracene	20.57	764529746	473.438 ng
21) T	Benzo[g,h,i]perylene	20.89	396499750	437.700 ng
22) H	C10-C12	2.70	664879727	934.107 ng
23) H	C12-C16	4.95	1107849952	1352.410 ng
24) H	C16-C21	9.60	1939166688	2263.960 ng
25) H	C21-C36	17.20	3139356903	3538.852 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

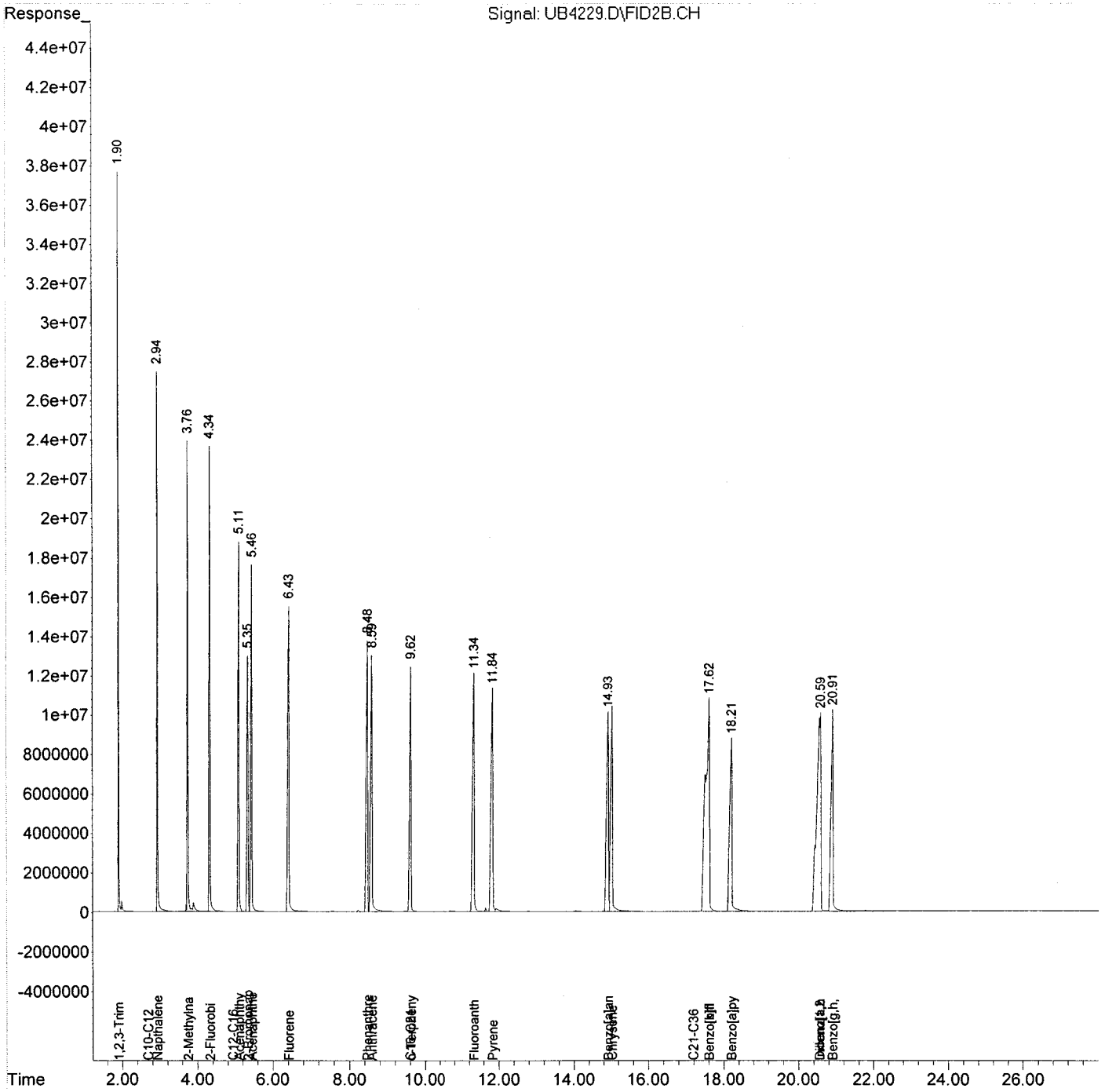
E13-0919 0450

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4229.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 10:56
Operator : PSL
Sample : ARO_L4_IAS_4662,500_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:19:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4230.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ARO_L3_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:20:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.32	243991675	279.427 ng
Spiked Amount	50.000		Recovery =	558.85%
2) S	2-Bromonaphthalene	5.33	157254208	292.746 ng
Spiked Amount	50.000		Recovery =	585.49%
3) S	o-Terphenyl	9.60	200188057	276.203 ng
Spiked Amount	50.000		Recovery =	552.41%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	191677125	281.406 ng
5) T	Napthalene	2.94	204952823	281.526 ng
6) T	2-Methylnaphthalene	3.75	207266255	273.831 ng
7) T	Acenaphthylene	5.09	219363228	278.283 ng
8) T	Acenaphthene	5.43	231924220	273.883 ng
9) T	Fluorene	6.41	226209829	275.733 ng
10) T	Phenanthrene	8.45	228606131	284.775 ng
11) T	Anthracene	8.56	228772674	270.165 ng
12) T	Fluoroanthene	11.30	236597041	278.140 ng
13) T	Pyrene	11.80	238859648	273.226 ng
14) T	Benzo[a]anthracene	14.89	232257650	284.090 ng
15) T	Chrysene	14.99	225808914	259.790 ng
16) T	Benzo[b]fluoranthene	17.56	477050379	272.791 ng
17) T	Benzo[k]fluoranthene	17.56	477050379	272.791 ng
18) T	Benzo[a]pyrene	18.15	238808217	272.158 ng
19) T	Indeno[1,2,3-cd]pyrene	20.51	455867041	282.297 ng
20) T	Dibenz[a,h]anthracene	20.51	455867041	282.297 ng
21) T	Benzo[g,h,i]perylene	20.85	239677308	264.582 ng
22) H	C10-C12	2.70	397655160	558.676 ng
23) H	C12-C16	4.95	671499376	819.734 ng
24) H	C16-C21	9.60	1168261140	1363.935 ng
25) H	C21-C36	17.20	1902137812	2144.192 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

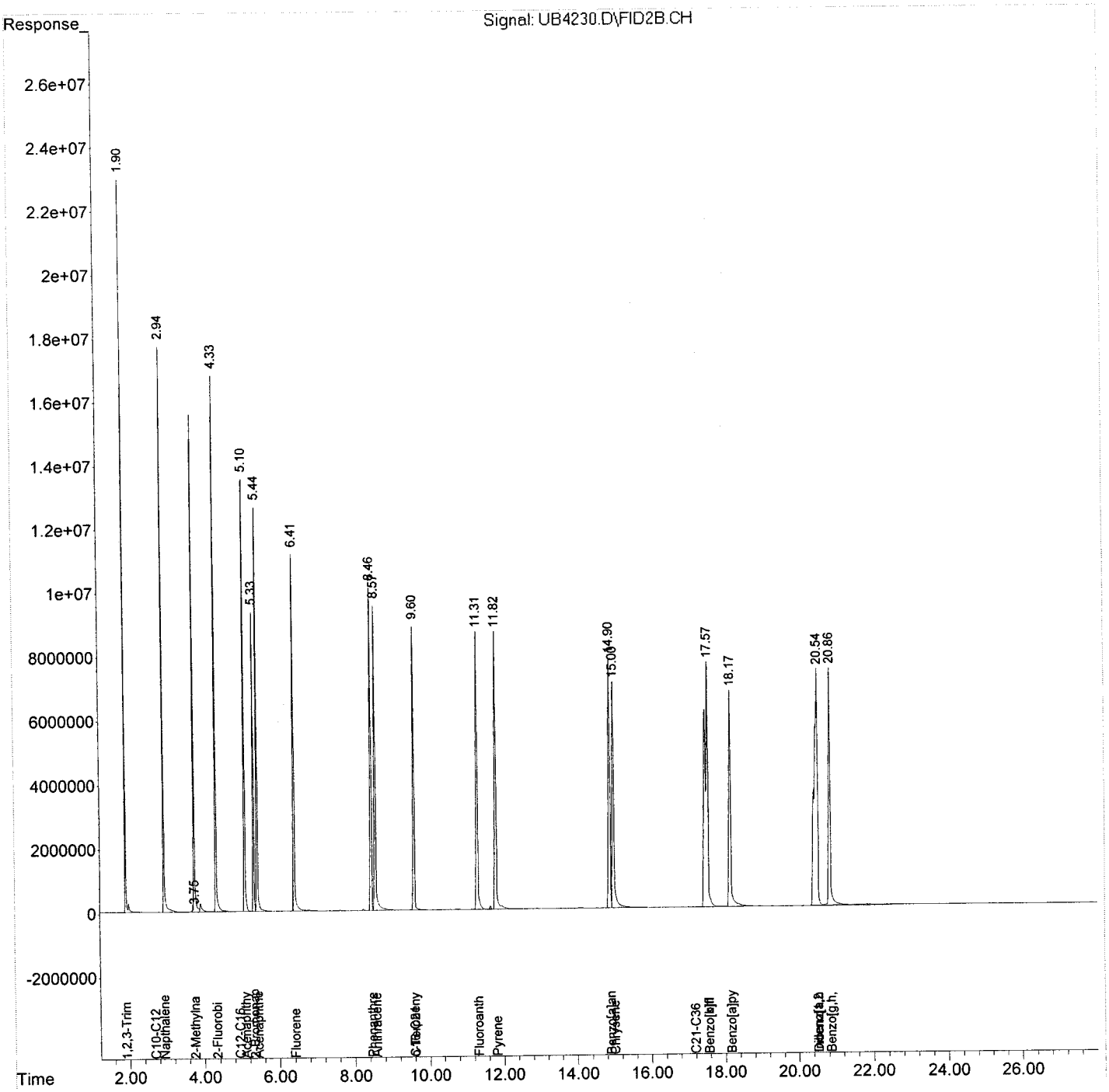
L

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4230.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 11:29
Operator : PSL
Sample : ARO_L3_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:20:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4231.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ARO_L2_IAS_4664.100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:21:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.32	77117517	88.317 ng
Spiked Amount	50.000		Recovery =	176.63%
2) S	2-Bromonaphthalene	5.32	43377331	80.752 ng
Spiked Amount	50.000		Recovery =	161.50%
3) S	o-Terphenyl	9.58	63926856	88.201 ng
Spiked Amount	50.000		Recovery =	176.40%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	60815255	89.284 ng
5) T	Napthalene	2.94	64127242	88.086 ng
6) T	2-Methylnaphthalene	3.75	68698485	90.761 ng
7) T	Acenaphthylene	5.08	69454438	88.110 ng
8) T	Acenaphthene	5.41	80243447	94.761 ng
9) T	Fluorene	6.39	72574313	88.463 ng
10) T	Phenanthrene	8.43	71588095	89.178 ng
11) T	Anthracene	8.54	74547136	88.035 ng
12) T	Fluoroanthene	11.28	75790178	89.098 ng
13) T	Pyrene	11.78	77605866	88.772 ng
14) T	Benzo[a]anthracene	14.86	70202549	85.869 ng
15) T	Chrysene	14.95	80362939	92.456 ng
16) T	Benzo[b]fluoranthene	17.45	155370472	88.845 ng
17) T	Benzo[k]fluoranthene	17.45	155370472	88.845 ng
18) T	Benzo[a]pyrene	18.12	77731696	88.587 ng
19) T	Indeno[1,2,3-cd]pyrene	20.40	142555136	88.278 ng
20) T	Dibenz[a,h]anthracene	20.40	142555136	88.278 ng
21) T	Benzo[g,h,i]perylene	20.80	80847142	89.248 ng
22) H	C10-C12	2.70	125844213	176.802 ng
23) H	C12-C16	4.95	220403489	269.058 ng
24) H	C16-C21	9.60	378695509	442.124 ng
25) H	C21-C36	17.20	627351740	707.185 ng

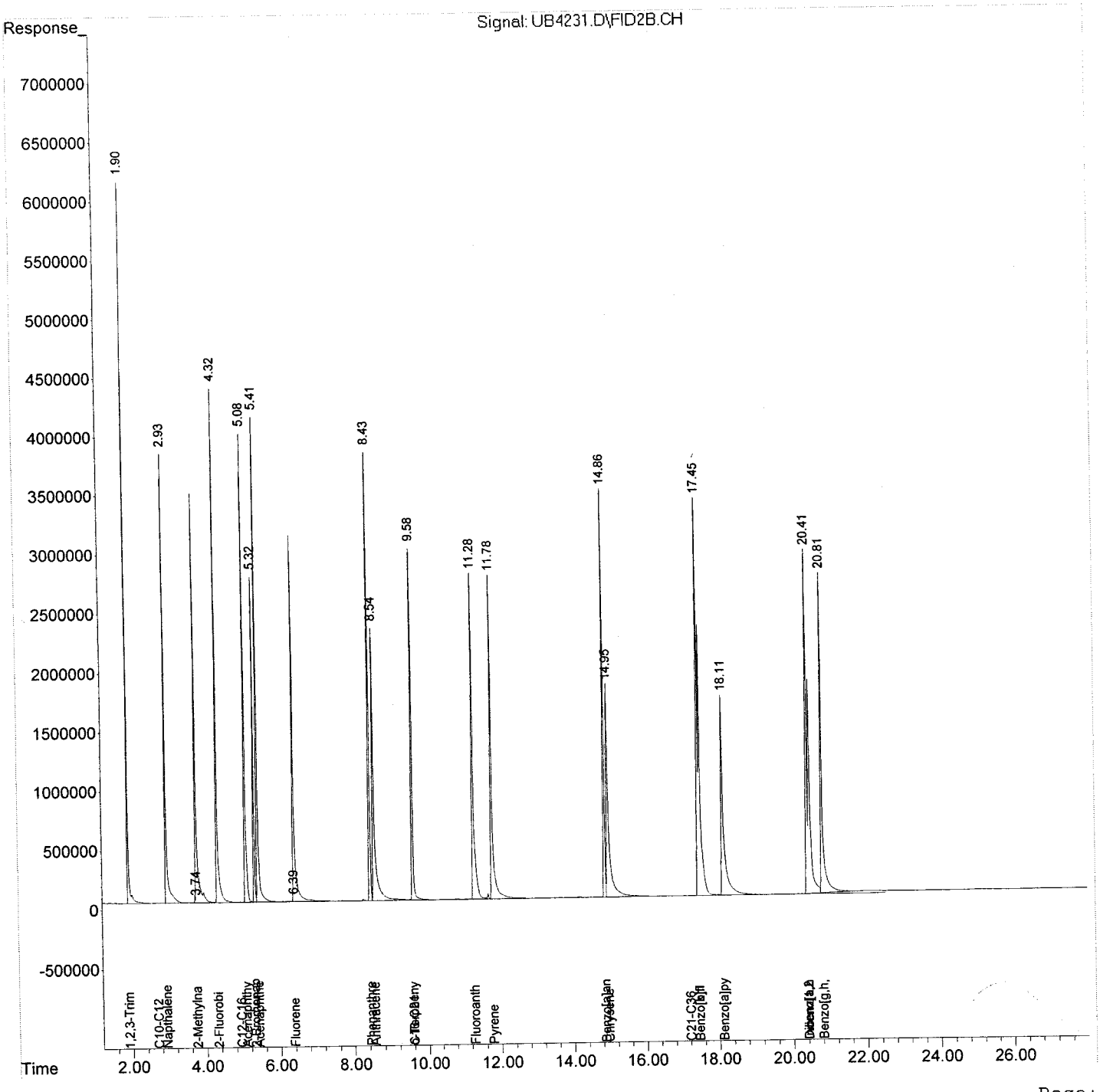
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4231.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:02
Operator : PSL
Sample : ARO_L2_IAS_4664,100_PPM
Misc : ,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:21:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4232.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ARO_L1_IAS_4665.20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:36:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.35	17229985	19.732	ng	
Spiked Amount	50.000		Recovery =	39.46%		
2) S	2-Bromonaphthalene	5.42	9298294	17.310	ng	m
Spiked Amount	50.000		Recovery =	34.62%		
3) S	o-Terphenyl	9.59	15067581	20.789	ng	
Spiked Amount	50.000		Recovery =	41.58%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.91	13133015	19.281	ng	
5) T	Napthalene	2.99	13685394	18.798	ng	
6) T	2-Methylnaphthalene	3.80	15064544	19.903	ng	
7) T	Acenaphthylene	5.11	15571055	19.753	ng	
8) T	Acenaphthene	5.43	14505706	17.130	ng	m
9) T	Fluorene	6.45	16561941	20.188	ng	
10) T	Phenanthrene	8.47	14311370	17.828	ng	
11) T	Anthracene	8.60	18714585	22.101	ng	
12) T	Fluoroanthene	11.33	16778527	19.725	ng	
13) T	Pyrene	11.83	18860134	21.574	ng	
14) T	Benzo[a]anthracene	14.90	15437122	18.882	ng	m
15) T	Chrysene	15.01	20091870	23.115	ng	m
16) T	Benzo[b]fluoranthene	17.54	36670113	20.969	ng	
17) T	Benzo[k]fluoranthene	17.54	36670113	20.969	ng	
18) T	Benzo[a]pyrene	18.23	18711315	21.324	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.51	29450552	18.237	ng	
20) T	Dibenz[a,h]anthracene	20.51	29450552	18.237	ng	
21) T	Benzo[g,h,i]perylene	20.87	20826517	22.991	ng	
22) H	C10-C12	2.70	27930599	39.240	ng	
23) H	C12-C16	4.95	50932986	62.177	ng	
24) H	C16-C21	9.60	89184571	104.122	ng	
25) H	C21-C36	17.20	158309943	178.456	ng	

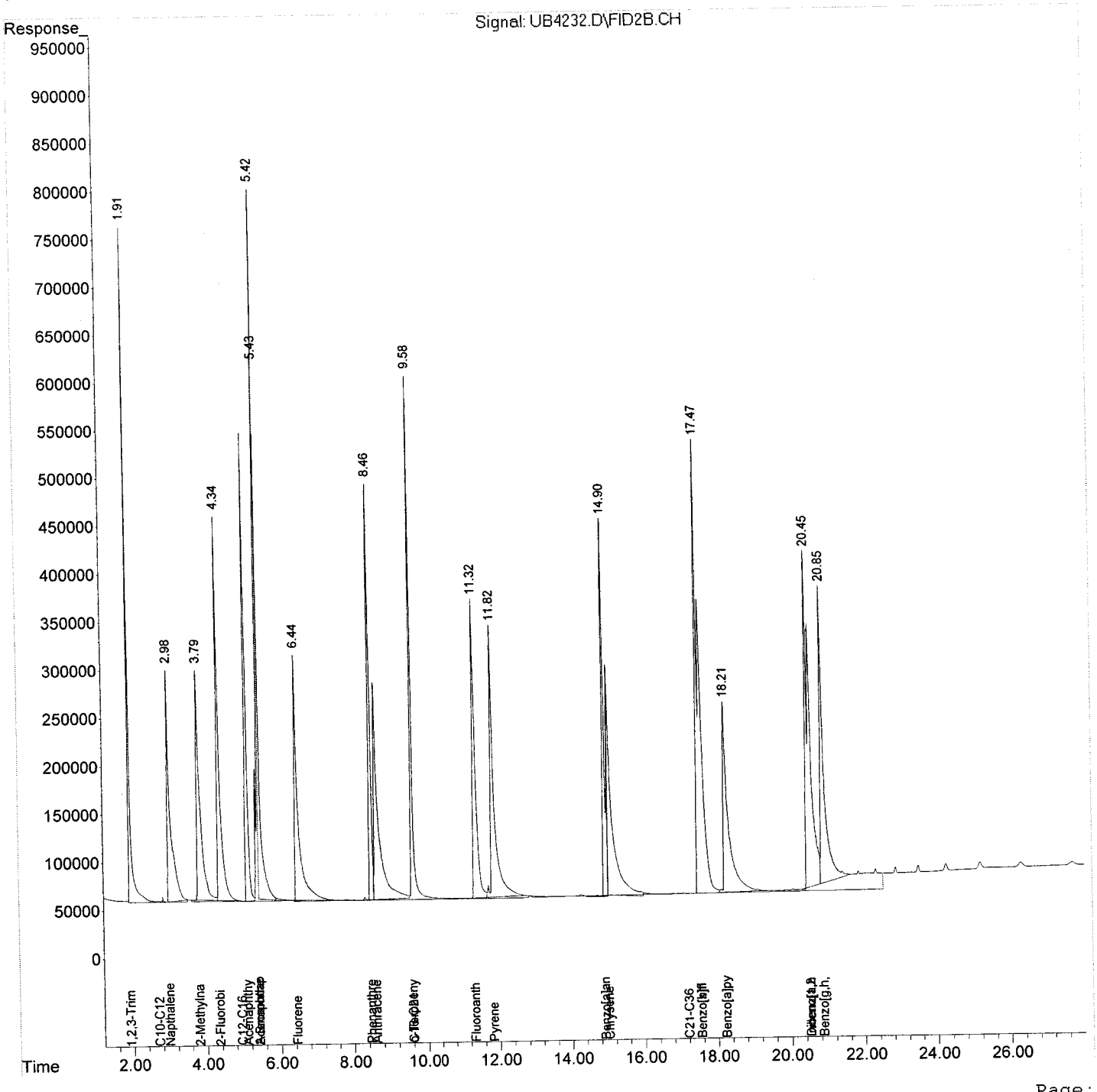
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-03-13\
Data File : UB4232.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 12:37
Operator : PSL
Sample : ARO_L1_IAS_4665.20_PPM
Misc : ,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:36:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:10:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-03-13\
Data File : UB4233.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:58:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.32	242422886	277.630 ng
Spiked Amount	50.000		Recovery =	555.26%
2) S	2-Bromonaphthalene	5.33	156327660	289.063 ng
Spiked Amount	50.000		Recovery =	578.13%
3) S	o-Terphenyl	9.60	199620123	275.419 ng
Spiked Amount	50.000		Recovery =	550.84%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.90	189186801	277.750 ng
5) T	Napthalene	2.93	202860896	278.653 ng
6) T	2-Methylnaphthalene	3.75	205290886	271.221 ng
7) T	Acenaphthylene	5.09	218041577	276.607 ng
8) T	Acenaphthene	5.43	230702373	281.739 ng
9) T	Fluorene	6.41	225265385	274.582 ng
10) T	Phenanthrene	8.45	227937331	283.942 ng
11) T	Anthracene	8.56	227849024	268.756 ng
12) T	Fluoroanthene	11.30	236268038	277.753 ng
13) T	Pyrene	11.81	238298167	272.584 ng
14) T	Benzo[a]anthracene	14.89	234503188	282.799 ng
15) T	Chrysene	14.99	222607024	260.075 ng
16) T	Benzo[b]fluoranthene	17.56	475985042	272.182 ng
17) T	Benzo[k]fluoranthene	17.56	475985042	272.182 ng
18) T	Benzo[a]pyrene	18.16	237648276	271.110 ng
19) T	Indeno[1,2,3-cd]pyrene	20.53	455836564	282.279 ng
20) T	Dibenz[a,h]anthracene	20.53	455836564	282.279 ng
21) T	Benzo[g,h,i]perylene	20.86	241601622	266.706 ng
22) H	C10-C12	2.70	393155637	550.613 ng
23) H	C12-C16	4.95	667247563	815.494 ng
24) H	C16-C21	9.60	1170243322	1366.597 ng
25) H	C21-C36	17.20	1896484173	2137.819 ng

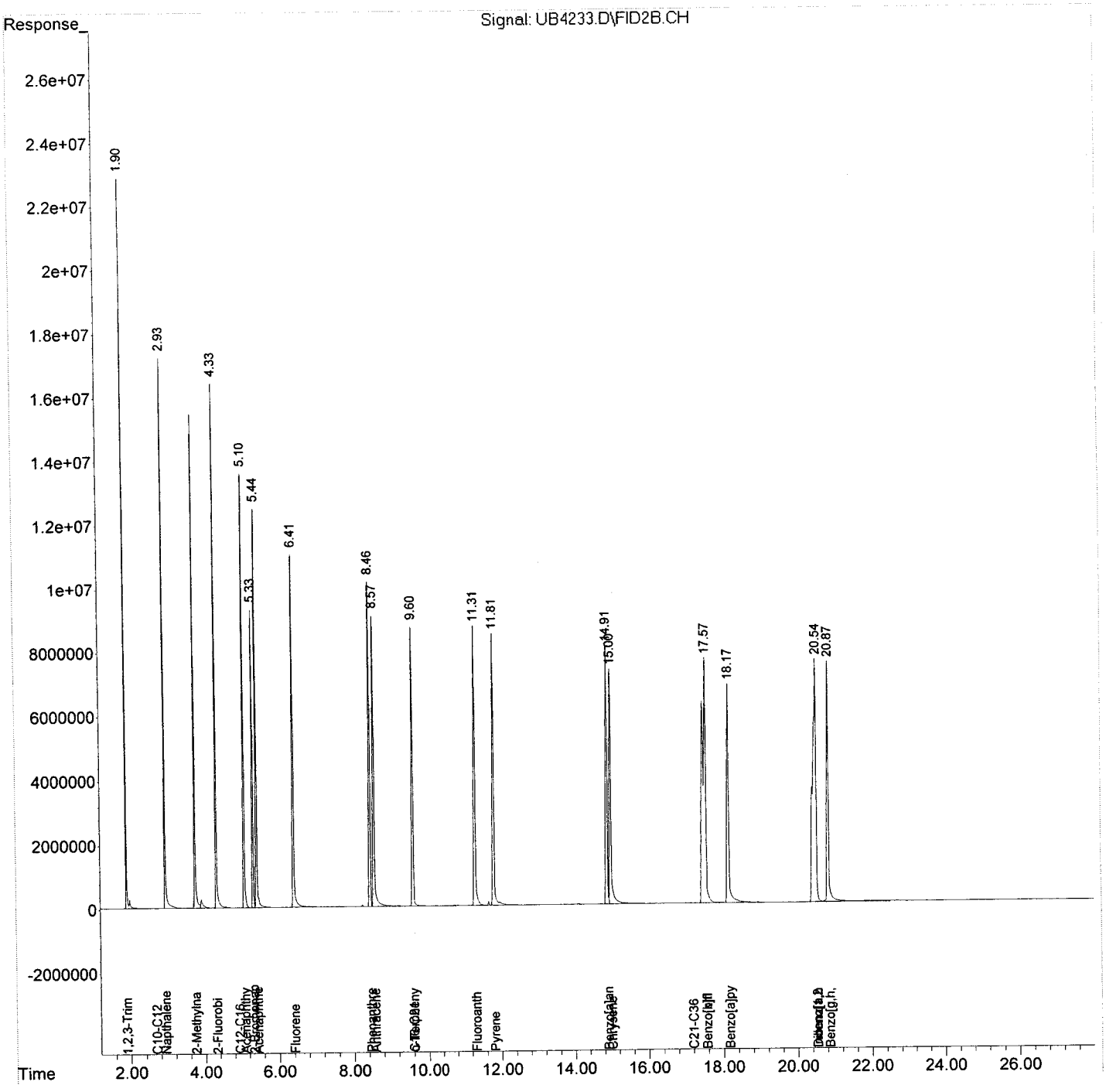
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-03-13\
Data File : UB4233.D
Signal(s) : FID2B.CH
Acq On : 03 Sep 2013 13:14
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 03 13:58:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-U

Data File: U6382.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.29	1.22	1.36	547115	600199	9.70
n-Decane (C10)	1.78	1.72	1.86	563917	617649	9.53
n-Dodecane (C12)	3.05	2.98	3.14	581409	639543	10.00
n-Tetradecane (C14)	4.65	4.57	4.75	587848	640768	9.00
n-Hexadecane (C16)	6.63	6.54	6.76	576949	612508	6.16
n-Octadecane (C18)	8.77	8.67	8.91	554049	571861	3.21
n-Eicosane (C20)	10.86	10.76	11.00	538965	543891	0.91
n-Heneicosane (C21)	11.86	11.74	12.02	534580	539154	0.86
n-Docosane (C22)	12.82	12.70	12.98	527476	529686	0.42
n-Tetracosane (C24)	14.64	14.51	14.81	518035	531613	2.62
n-Hexacosane (C26)	16.33	16.20	16.50	510509	551012	7.93
n_Octacosane (C28)	17.92	17.79	18.09	514391	578450	12.45
n-Triacontane (C30)	19.39	19.26	19.56	525714	596443	13.45
n-Dotriacontane (C32)	20.76	20.66	20.90	548364	615895	12.32
n-Tetratriacontane (C34)	21.58	21.47	21.71	558667	618098	10.64
n-Hexatriacontane (C36)	22.34	22.21	22.51	571713	626113	9.52
n-Octatriacontane (C38)	23.28	23.16	23.46	562047	611814	8.85
n-Tetracontane (40)	24.50	24.38	24.68	543032	587257	8.14
C9-C12	2.25	2.15	2.35	1737914	1870160	7.61
C12-C16	5.20	5.10	5.30	1214566	1276499	5.10
C16-C21	9.65	9.54	9.76	1674249	1684445	0.61
C21-C40	18.70	18.59	18.81	5880347	6033776	2.61

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/25/2013 **Instrument ID:** GC-U

Data File: U6398.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.29	1.22	1.36	547115	632056	15.53
n-Decane (C10)	1.78	1.72	1.86	563917	646758	14.69
n-Dodecane (C12)	3.05	2.98	3.14	581409	661802	13.83
n-Tetradecane (C14)	4.65	4.57	4.75	587848	653302	11.13
n-Hexadecane (C16)	6.63	6.54	6.76	576949	616147	6.79
n-Octadecane (C18)	8.77	8.67	8.91	554049	570258	2.93
n-Eicosane (C20)	10.86	10.76	11.00	538965	539555	0.11
n-Heneicosane (C21)	11.86	11.74	12.02	534580	535221	0.12
n-Docosane (C22)	12.82	12.70	12.98	527476	527001	0.09
n-Tetracosane (C24)	14.64	14.51	14.81	518035	534697	3.22
n-Hexacosane (C26)	16.33	16.20	16.50	510509	557431	9.19
n_Octacosane (C28)	17.92	17.79	18.09	514391	587299	14.17
n-Triacontane (C30)	19.39	19.26	19.56	525714	607527	15.56
n-Dotriacontane (C32)	20.76	20.66	20.90	548364	627725	14.47
n-Tetratriacontane (C34)	21.58	21.47	21.71	558667	629934	12.76
n-Hexatriacontane (C36)	22.35	22.21	22.51	571713	637937	11.58
n-Octatriacontane (C38)	23.28	23.16	23.46	562047	622971	10.84
n-Tetracontane (40)	24.50	24.38	24.68	543032	594819	9.54
C9-C12	2.25	2.15	2.35	1737914	1952746	12.36
C12-C16	5.20	5.10	5.30	1214566	1292342	6.40
C16-C21	9.65	9.54	9.76	1674249	1690081	0.95
C21-C40	18.70	18.59	18.81	5880347	6139477	4.41

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6382.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:26:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.70	104194674	248.964 ng
Spiked Amount 50.000		Recovery = 497.93%	
24) S o-Terphenyl	9.70	144815731	251.150 ng
Spiked Amount 50.000		Recovery = 502.30%	
25) S Naphthalene	2.97	167495529	273.663 ng
Spiked Amount 50.000		Recovery = 547.33%	
26) S 2-Methylnaphthalene	3.80	172244303	273.276 ng
Spiked Amount 50.000		Recovery = 546.55%	
Target Compounds			
2) T n-Nonane (C9)	1.29	150049820	274.256 ng
3) T n-Decane (C10)	1.78	154412179	273.821 ng
4) T n-Dodecane (C12)	3.05	159885737	274.997 ng
5) T n-Tetradecane (C14)	4.65	160191879	272.506 ng
6) T n-Hexadecane (C16)	6.63	153126972	265.408 ng
7) T n-Octadecane (C18)	8.77	142965246	258.037 ng
8) T n-Eicosane (C20)	10.86	135972646	252.285 ng
9) T n-Heneicosane (C21)	11.86	134788471	252.139 ng
10) T n-Docosane (C22)	12.82	132421388	251.047 ng
11) T n-Tetracosane (C24)	14.64	132903221	256.552 ng
12) T n-Hexacosane (C26)	16.33	137753104	269.835 ng
13) T n-Octacosane (C28)	17.92	144612464	281.133 ng
14) T n-Triacontane (C30)	19.39	149110753	283.635 ng
15) T n-Dotriacontane (C32)	20.76	153973634	280.788 ng
16) T n-Tetratriacontane (C34)	21.58	154524466	276.595 ng
17) T n-Hexatriacontane (C36)	22.34	156528285	273.788 ng
18) T n-Octatriacontane (C38)	23.28	152953528	272.137 ng
19) T n-Tetracontane (C40)	24.50	146814296	270.360 ng
20) H C9-C12	2.25	467539963	807.071 ng
21) H C12-C16	5.20	319124824	525.496 ng
22) H C16-C21	9.65	421111359	754.568 ng
23) H C21-C40	18.70	1508444092	2565.230 ng

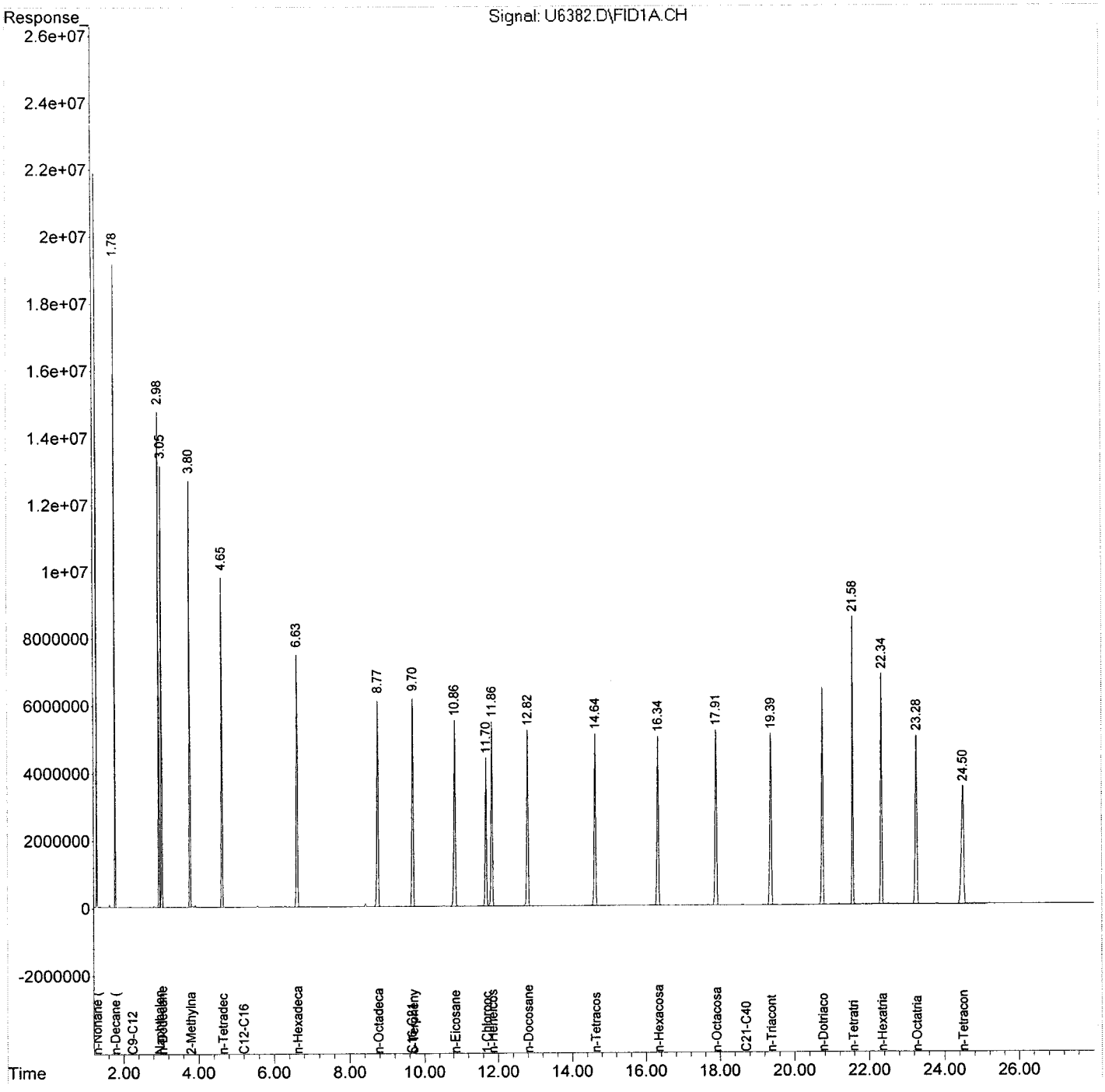
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6382.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:26:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6398.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ALI_C_IAS_4669.250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:28:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.70	103238663	246.680 ng
Spiked Amount 50.000		Recovery	= 493.36%
24) S o-Terphenyl	9.70	144411551	250.449 ng
Spiked Amount 50.000		Recovery	= 500.90%
25) S Naphthalene	2.98	173538591	283.536 ng
Spiked Amount 50.000		Recovery	= 567.07%
26) S 2-Methylnaphthalene	3.80	177013804	280.844 ng
Spiked Amount 50.000		Recovery	= 561.69%
Target Compounds			
2) T n-Nonane (C9)	1.29	158014116	288.813 ng
3) T n-Decane (C10)	1.78	161689470	286.725 ng
4) T n-Dodecane (C12)	3.05	165450416	284.568 ng
5) T n-Tetradecane (C14)	4.65	163325557	277.836 ng
6) T n-Hexadecane (C16)	6.63	154036697	266.985 ng
7) T n-Octadecane (C18)	8.77	142564501	257.314 ng
8) T n-Eicosane (C20)	10.86	134888764	250.273 ng
9) T n-Heneicosane (C21)	11.86	133805256	250.300 ng
10) T n-Docosane (C22)	12.82	131750125	249.775 ng
11) T n-Tetracosane (C24)	14.64	133674271	258.041 ng
12) T n-Hexacosane (C26)	16.33	139357776	272.978 ng
13) T n-Octacosane (C28)	17.92	146824668	285.434 ng
14) T n-Triacontane (C30)	19.39	151881661	288.905 ng
15) T n-Dotriacontane (C32)	20.76	156931278	286.181 ng
16) T n-Tetratriacontane (C34)	21.58	157483528	281.892 ng
17) T n-Hexatriacontane (C36)	22.35	159484251	278.958 ng
18) T n-Octatriacontane (C38)	23.28	155742741	277.099 ng
19) T n-Tetracontane (C40)	24.50	148704848	273.842 ng
20) H C9-C12	2.25	488186607	842.711 ng
21) H C12-C16	5.20	323085540	532.018 ng
22) H C16-C21	9.65	422520221	757.092 ng
23) H C21-C40	18.70	1534869375	2610.168 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

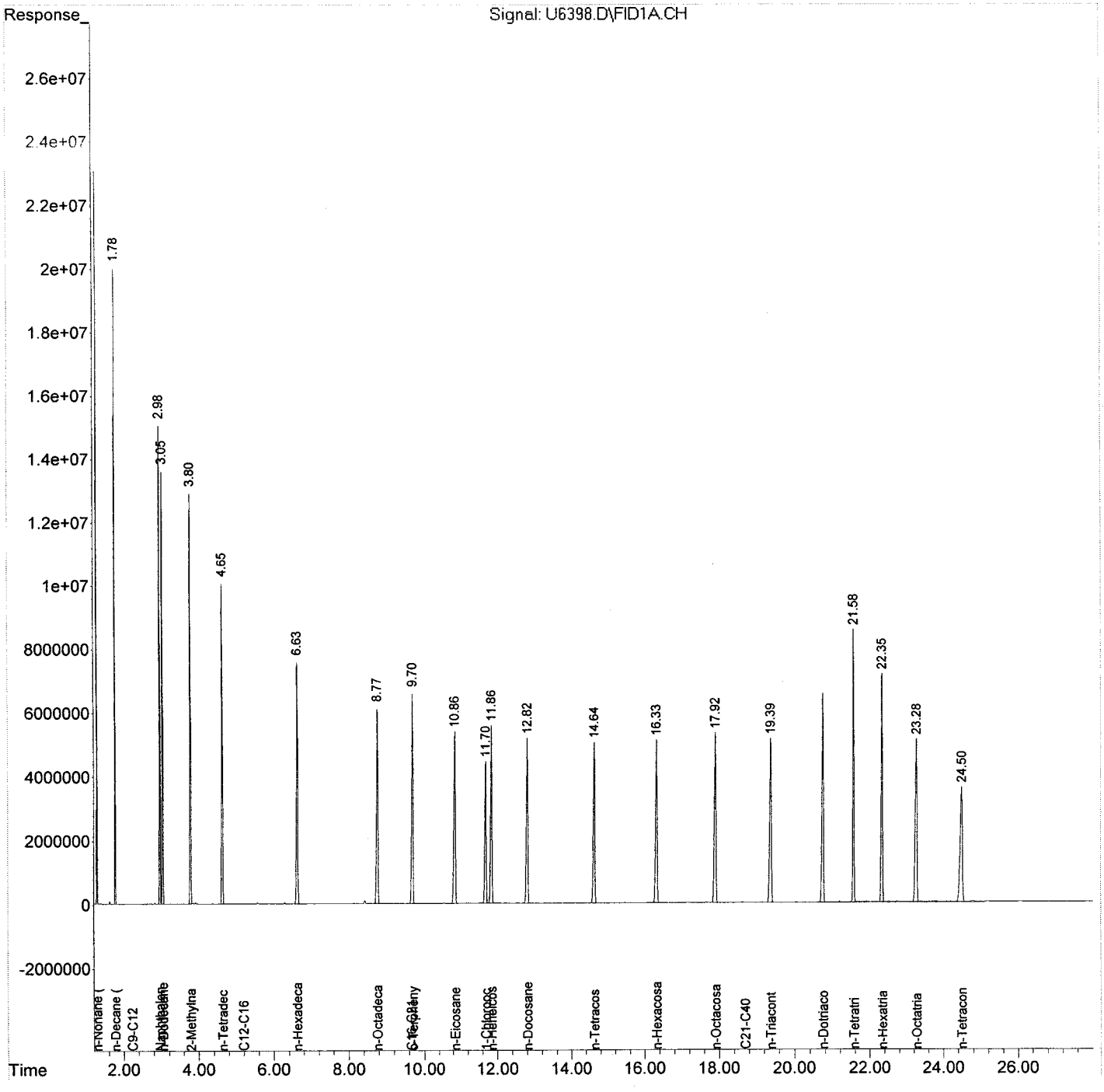
E13-09197 0464

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6398.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ALI_C_IAS_4669,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:28:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-U

Data File: UB4457.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.89	1.79	2.03	681141	628887	7.67
Napthalene	2.92	2.83	3.07	728006	672030	7.69
2-Methylnaphthalene	3.73	3.64	3.88	756914	680091	10.15
Acenaphthylene	5.07	4.98	5.22	788273	719504	8.72
Acenaphthene	5.40	5.32	5.56	868756	771578	11.19
Fluorene	6.37	6.30	6.54	820394	754143	8.08
Phenanthrene	8.42	8.35	8.59	802759	772568	3.76
Anthracene	8.52	8.47	8.71	847793	740615	12.64
Fluoroanthene	11.27	11.20	11.44	850639	805814	5.27
Pyrene	11.77	11.71	11.95	874219	812442	7.07
Benzo[a]anthracene	14.85	14.79	15.03	829224	798882	3.66
Chrysene	14.95	14.90	15.14	855934	773040	9.68
Benzo[b]fluoranthene	17.53	17.45	17.69	1748775	1640367	6.20
Benzo[k]fluoranthene	17.53	17.45	17.69	1748775	1641318	6.14
Benzo[a]pyrene	18.12	18.08	18.32	876576	812911	7.26
Indeno[1,2,3-cd]pyrene	20.48	20.42	20.66	1614847	1578636	2.24
Dibenz[a,h]anthracene	20.48	20.42	20.66	1614847	1578636	2.24
Benzo[g,h,i]perylene	20.82	20.76	21.00	905872	814481	10.09
C10-C12	2.70	2.58	2.82	1428065	1303819	8.70
C12-C16	4.95	4.83	5.07	2454639	2216699	9.69
C16-C21	9.60	9.48	9.72	4281595	3969619	7.29
C21-C36	17.20	17.08	17.32	7096892	6539095	7.86

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/25/2013 **Instrument ID:** GC-U

Data File: UB4473.D **GC Column :** HP-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.89	1.79	2.03	681141	661294	2.91
Napthalene	2.92	2.83	3.07	728006	704358	3.25
2-Methylnaphthalene	3.73	3.64	3.88	756914	709956	6.20
Acenaphthylene	5.06	4.98	5.22	788273	750221	4.83
Acenaphthene	5.40	5.32	5.56	868756	793073	8.71
Fluorene	6.37	6.30	6.54	820394	776571	5.34
Phenanthrene	8.41	8.35	8.59	802759	784556	2.27
Anthracene	8.52	8.47	8.71	847793	753970	11.07
Fluoroanthene	11.26	11.20	11.44	850639	826401	2.85
Pyrene	11.77	11.71	11.95	874219	822467	5.92
Benzo[a]anthracene	14.85	14.79	15.03	829224	798365	3.72
Chrysene	14.95	14.90	15.14	855934	780915	8.76
Benzo[b]fluoranthene	17.52	17.45	17.69	1748775	1643394	6.03
Benzo[k]fluoranthene	17.52	17.45	17.69	1748775	1643394	6.03
Benzo[a]pyrene	18.12	18.08	18.32	876576	818126	6.67
Indeno[1,2,3-cd]pyrene	20.47	20.42	20.66	1614847	1519711	5.89
Dibenz[a,h]anthracene	20.47	20.42	20.66	1614847	1519711	5.89
Benzo[g,h,i]perylene	20.82	20.76	21.00	905872	741802	18.11
C10-C12	2.70	2.58	2.82	1428065	1371443	3.96
C12-C16	4.95	4.83	5.07	2454639	2296049	6.46
C16-C21	9.60	9.48	9.72	4281595	4064814	5.06
C21-C36	17.20	17.08	17.32	7096892	6554552	7.64

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4457.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:29:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.30	199507168	228.482	ng	
Spiked Amount	50.000		Recovery	= 456.96%		
2) S	2-Bromonaphthalene	5.30	129106427	238.729	ng	
Spiked Amount	50.000		Recovery	= 477.46%		
3) S	o-Terphenyl	9.56	161874388	223.341	ng	
Spiked Amount	50.000		Recovery	= 446.68%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.89	157221738	230.821	ng	
5) T	Napthalene	2.92	168007475	230.778	ng	
6) T	2-Methylnaphthalene	3.73	170022696	224.626	ng	
7) T	Acenaphthylene	5.07	179875939	228.190	ng	
8) T	Acenaphthene	5.40	192894411	235.567	ng	
9) T	Fluorene	6.37	188535766	229.811	ng	
10) T	Phenanthrene	8.42	193142086	240.598	ng	
11) T	Anthracene	8.52	185153779	218.395	ng	
12) T	Fluoroanthene	11.27	201453554	236.826	ng	
13) T	Pyrene	11.77	203110584	232.334	ng	
14) T	Benzo[a]anthracene	14.85	199720392	240.852	ng	
15) T	Chrysene	14.95	193259915	225.788	ng	
16) T	Benzo[b]fluoranthene	17.53	410091698	234.502	ng	m
17) T	Benzo[k]fluoranthene	17.53	410329493	234.638	ng	m
18) T	Benzo[a]pyrene	18.12	203227761	231.843	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.48	394658989	244.394	ng	
20) T	Dibenz[a,h]anthracene	20.48	394658989	244.394	ng	
21) T	Benzo[g,h,i]perylene	20.82	203620156	224.778	ng	
22) H	C10-C12	2.70	325954843	456.499	ng	
23) H	C12-C16	4.95	554174703	677.299	ng	
24) H	C16-C21	9.60	992404682	1158.919	ng	
25) H	C21-C36	17.20	1634773822	1842.805	ng	

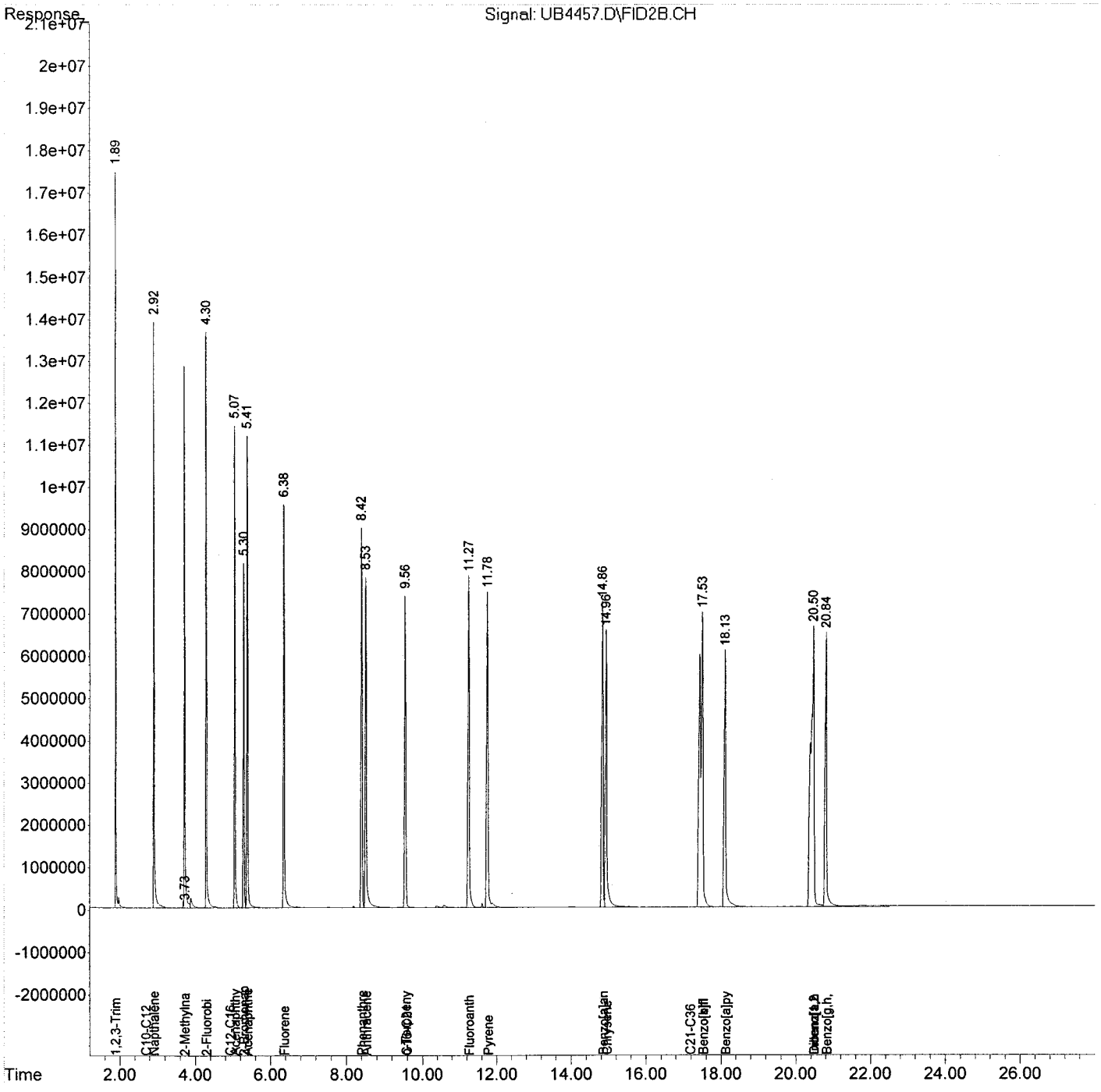
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4457.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 15:58
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 16:29:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4473.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:36:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	2-Fluorobiphenyl	4.30	206970605	237.029 ng
Spiked Amount	50.000		Recovery =	474.06%
2) S	2-Bromonaphthalene	5.30	134589914	248.868 ng
Spiked Amount	50.000		Recovery =	497.74%
3) S	o-Terphenyl	9.56	164254274	226.624 ng
Spiked Amount	50.000		Recovery =	453.25%
	Target Compounds			
4) T	1,2,3-Trimethylbenzene	1.89	165323617	242.716 ng
5) T	Napthalene	2.92	176089523	241.879 ng
6) T	2-Methylnaphthalene	3.73	177488891	234.490 ng
7) T	Acenaphthylene	5.06	187555285	237.932 ng
8) T	Acenaphthene	5.40	198268307	242.129 ng
9) T	Fluorene	6.37	194142763	236.646 ng
10) T	Phenanthrene	8.41	196138997	244.331 ng
11) T	Anthracene	8.52	188492596	222.333 ng
12) T	Fluoroanthene	11.26	206600340	242.877 ng
13) T	Pyrene	11.77	205616851	235.201 ng
14) T	Benzo[a]anthracene	14.85	199591297	240.697 ng
15) T	Chrysene	14.95	195228782	228.088 ng
16) T	Benzo[b]fluoranthene	17.52	410848525	234.935 ng
17) T	Benzo[k]fluoranthene	17.52	410848525	234.935 ng
18) T	Benzo[a]pyrene	18.12	204531510	233.330 ng
19) T	Indeno[1,2,3-cd]pyrene	20.47	379927788	235.272 ng
20) T	Dibenz[a,h]anthracene	20.47	379927788	235.272 ng
21) T	Benzo[g,h,i]perylene	20.82	185450384	204.720 ng
22) H	C10-C12	2.70	342860776	480.175 ng
23) H	C12-C16	4.95	574012226	701.544 ng
24) H	C16-C21	9.60	1016203600	1186.712 ng
25) H	C21-C36	17.20	1638638092	1847.161 ng

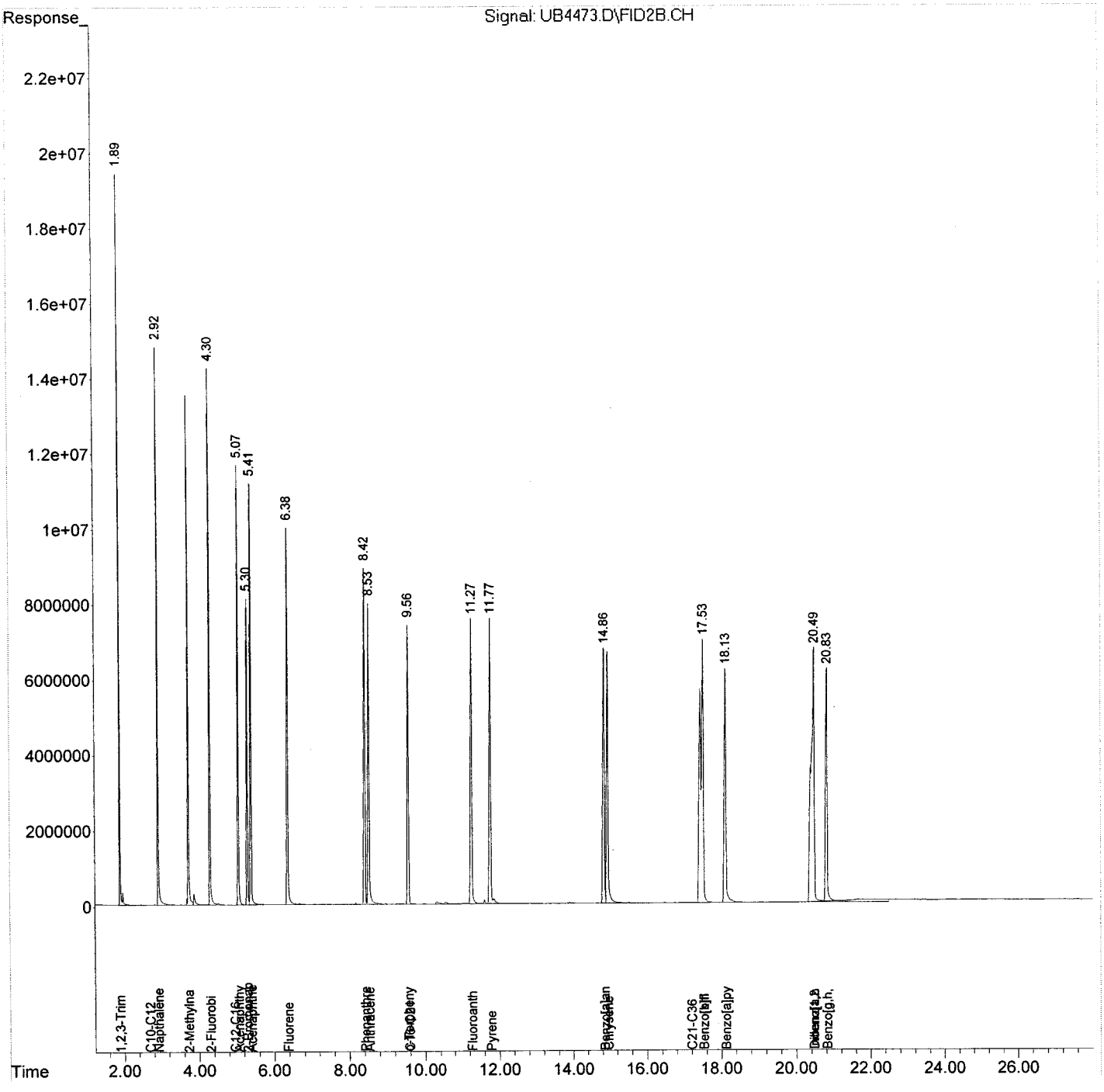
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4473.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 11:00
Operator : PSL
Sample : ARO_C_IAS_4663,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 11:36:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6384.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ALI,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	11.67	15445792	36.906 ng
Spiked Amount	50.000		Recovery =	73.81%
	Target Compounds			
2)	T n-Nonane (C9)	1.29	14020209	25.626 ng
3)	T n-Decane (C10)	1.78	20405230	36.185 ng
4)	T n-Dodecane (C12)	3.04	24020905	41.315 ng
5)	T n-Tetradecane (C14)	4.63	26300822	44.741 ng
6)	T n-Hexadecane (C16)	6.61	26932608	46.681 ng
7)	T n-Octadecane (C18)	8.75	26241676	47.363 ng
8)	T n-Eicosane (C20)	10.83	24870846	46.146 ng
9)	T n-Heneicosane (C21)	11.83	22910163	42.856 ng
10)	T n-Docosane (C22)	12.79	25381170	48.118 ng
11)	T n-Tetracosane (C24)	14.61	22454366	43.345 ng
12)	T n-Hexacosane (C26)	16.31	22998457	45.050 ng
13)	T n-Octacosane (C28)	17.88	23846695	46.359 ng
14)	T n-Triacontane (C30)	19.36	24904258	47.372 ng
15)	T n-Dotriacontane (C32)	20.73	24984223	45.561 ng
16)	T n-Tetratriacontane (C34)	21.55	26430099	47.309 ng
17)	T n-Hexatriacontane (C36)	22.31	25231335	44.133 ng
18)	T n-Octatriacontane (C38)	23.24	24272664	43.186 ng
19)	T n-Tetracontane (C40)	24.44	24103924	44.388 ng
20)	H C9-C12	2.25	36319229	62.695 ng
21)	H C12-C16	5.20	55593351	91.544 ng
22)	H C16-C21	9.65	77291756	138.495 ng
23)	H C21-C40	18.70	284874060	484.451 ng

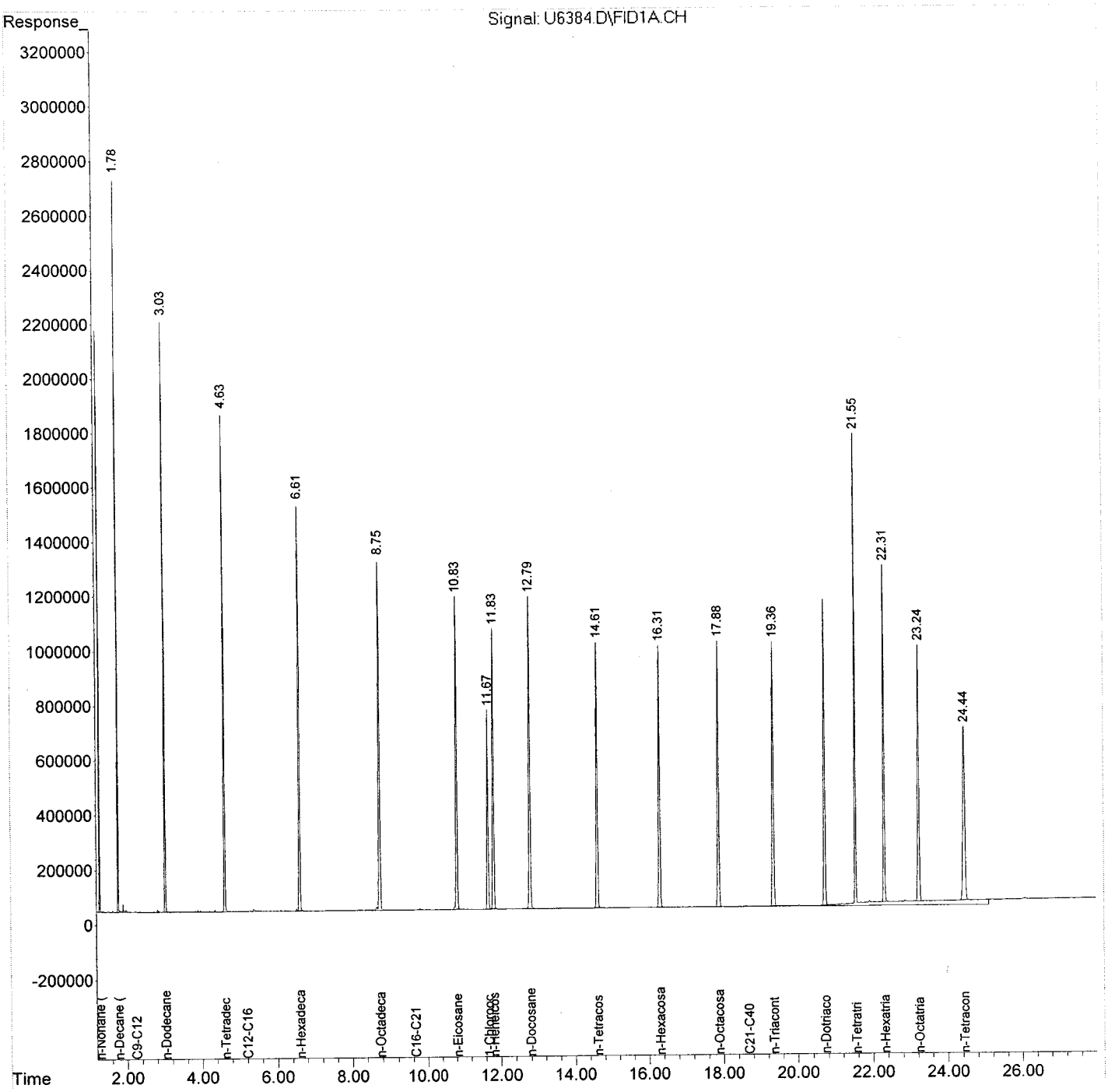
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6384.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ALI,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6385.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ALI,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	11.67	16390333	39.163 ng
	Spiked Amount 50.000		Recovery =	78.33%
	Target Compounds			
2)	T n-Nonane (C9)	1.29	14533513	26.564 ng
3)	T n-Decane (C10)	1.78	21218096	37.626 ng
4)	T n-Dodecane (C12)	3.04	25193890	43.332 ng
5)	T n-Tetradecane (C14)	4.63	27869367	47.409 ng
6)	T n-Hexadecane (C16)	6.61	28789942	49.900 ng
7)	T n-Octadecane (C18)	8.75	28172476	50.848 ng
8)	T n-Eicosane (C20)	10.83	26560188	49.280 ng
9)	T n-Heneicosane (C21)	11.83	24323842	45.501 ng
10)	T n-Docosane (C22)	12.79	26745449	50.705 ng
11)	T n-Tetracosane (C24)	14.61	23253738	44.888 ng
12)	T n-Hexacosane (C26)	16.30	23467706	45.969 ng
13)	T n-Octacosane (C28)	17.88	24207080	47.060 ng
14)	T n-Triacontane (C30)	19.36	25311383	48.147 ng
15)	T n-Dotriacontane (C32)	20.73	25385104	46.292 ng
16)	T n-Tetratriacontane (C34)	21.54	26801571	47.974 ng
17)	T n-Hexatriacontane (C36)	22.30	25584943	44.751 ng
18)	T n-Octatriacontane (C38)	23.23	24565492	43.707 ng
19)	T n-Tetracontane (C40)	24.43	24398870	44.931 ng
20)	H C9-C12	2.25	37838586	65.317 ng
21)	H C12-C16	5.20	59309571	97.664 ng
22)	H C16-C21	9.65	82711690	148.207 ng
23)	H C21-C40	18.70	290620472	494.223 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

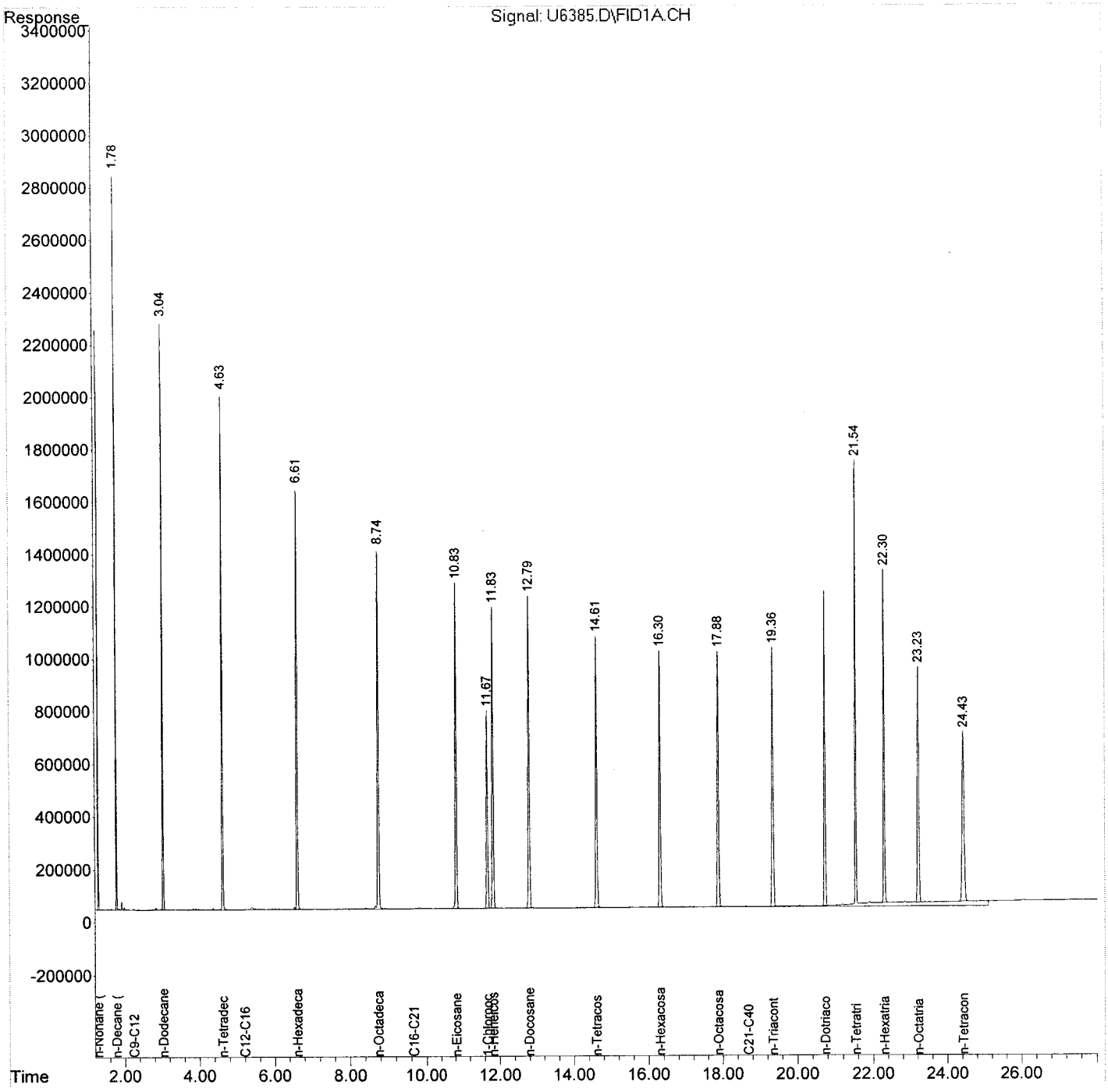
E13-09197 0475

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6385.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ALI,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:12:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4459.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ARO,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.30	32033451	36.686	ng	
Spiked Amount	50.000		Recovery =	73.37%		
2) S	2-Bromonaphthalene	5.30	14015009	25.915	ng	
Spiked Amount	50.000		Recovery =	51.83%		
3) S	o-Terphenyl	9.54	24316288	33.550	ng	
Spiked Amount	50.000		Recovery =	67.10%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.89	19611000	28.791	ng	
5) T	Napthalene	2.93	26808921	36.825	ng	
6) T	2-Methylnaphthalene	3.74	29165160	38.532	ng	
7) T	Acenaphthylene	5.06	30592216	38.809	ng	
8) T	Acenaphthene	5.38	40419933	49.362	ng	
9) T	Fluorene	6.37	31798016	38.759	ng	
10) T	Phenanthrene	8.40	33453869	41.674	ng	
11) T	Anthracene	8.51	37080826	43.738	ng	
12) T	Fluoroanthene	11.25	36785835	43.245	ng	
13) T	Pyrene	11.74	38581490	44.133	ng	
14) T	Benzo[a]anthracene	14.82	33759473	40.712	ng	m
15) T	Chrysene	14.93	42361858	49.492	ng	
16) T	Benzo[b]fluoranthene	17.41	77871571	44.529	ng	
17) T	Benzo[k]fluoranthene	17.41	77871571	44.529	ng	
18) T	Benzo[a]pyrene	18.11	34756253	39.650	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.37	71313510	44.161	ng	
20) T	Dibenz[a,h]anthracene	20.37	71313510	44.161	ng	
21) T	Benzo[g,h,i]perylene	20.78	39232149	43.309	ng	
22) H	C10-C12	2.70	48487950	67.907	ng	
23) H	C12-C16	4.95	101887265	124.524	ng	
24) H	C16-C21	9.60	190333074	222.269	ng	
25) H	C21-C36	17.20	324212937	365.470	ng	

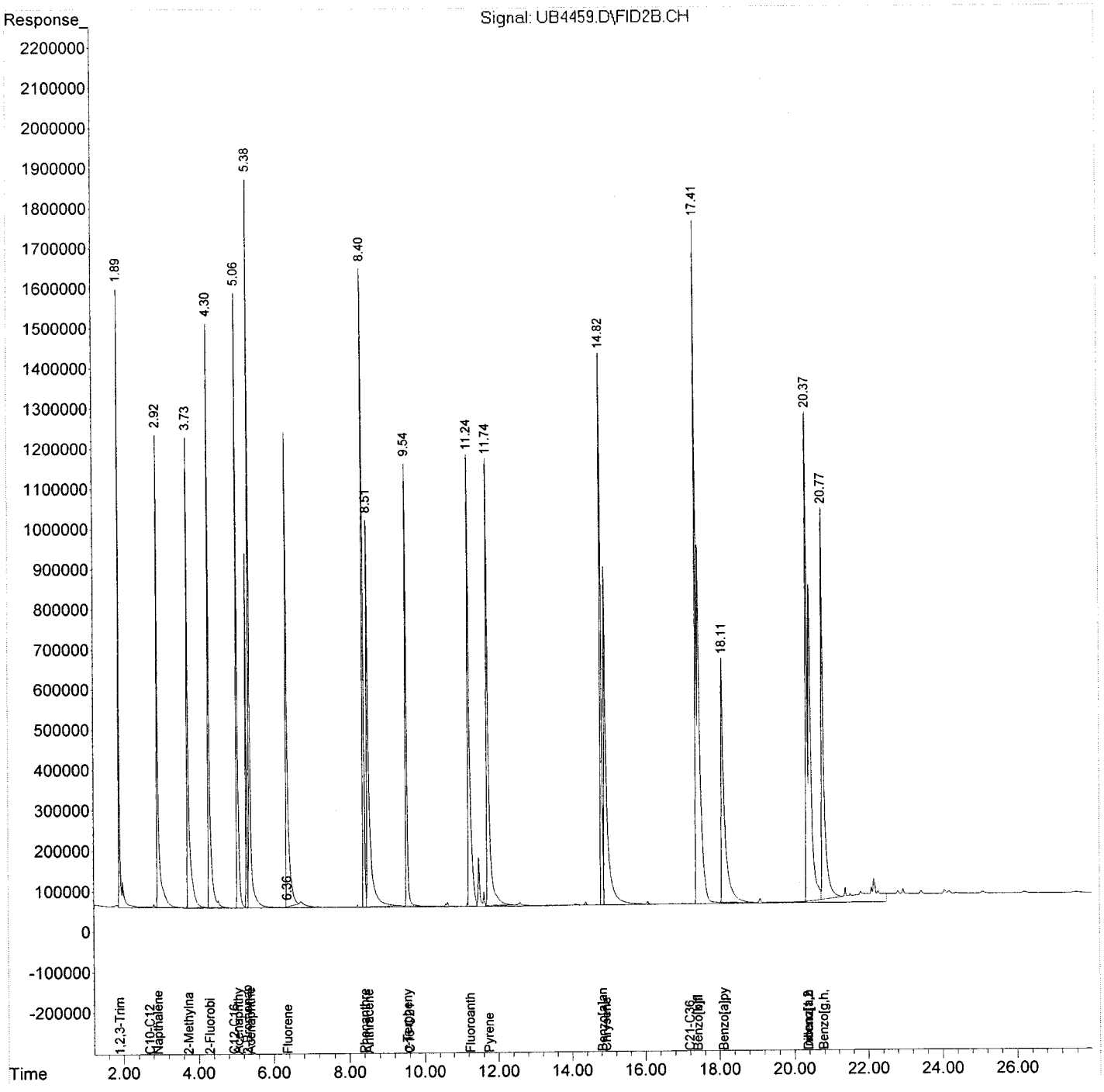
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\09-24-13\
Data File : UB4459.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:05
Operator : PSL
Sample : ARO,LCSS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4460.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ARO,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.30	30485811	34.913	ng	
Spiked Amount 50.000		Recovery =	69.83%		
2) S 2-Bromonaphthalene	5.30	13158076	24.330	ng	
Spiked Amount 50.000		Recovery =	48.66%		
3) S o-Terphenyl	9.54	23349885	32.216	ng	
Spiked Amount 50.000		Recovery =	64.43%		
Target Compounds					
4) T 1,2,3-Trimethylbenzene	1.89	18337662	26.922	ng	
5) T Napthalene	2.93	25316790	34.776	ng	
6) T 2-Methylnaphthalene	3.74	27742723	36.652	ng	
7) T Acenaphthylene	5.06	29289224	37.156	ng	
8) T Acenaphthene	5.39	39037968	47.674	ng	
9) T Fluorene	6.37	30504785	37.183	ng	
10) T Phenanthrene	8.40	32129880	40.024	ng	
11) T Anthracene	8.52	34465462	40.653	ng	
12) T Fluoroanthene	11.25	35055011	41.210	ng	
13) T Pyrene	11.75	36770507	42.061	ng	
14) T Benzo[a]anthracene	14.83	32046006	38.646	ng	m
15) T Chrysene	14.93	40011266	46.746	ng	
16) T Benzo[b]fluoranthene	17.41	73469206	42.012	ng	
17) T Benzo[k]fluoranthene	17.41	73469206	42.012	ng	
18) T Benzo[a]pyrene	18.11	32754484	37.366	ng	
19) T Indeno[1,2,3-cd]pyrene	20.36	68201136	42.234	ng	m
20) T Dibenz[a,h]anthracene	20.36	68007375	42.114	ng	m
21) T Benzo[g,h,i]perylene	20.78	37983927	41.931	ng	
22) H C10-C12	2.70	45428510	63.622	ng	
23) H C12-C16	4.95	97968071	119.734	ng	
24) H C16-C21	9.60	182312108	212.902	ng	
25) H C21-C36	17.20	307177854	346.267	ng	

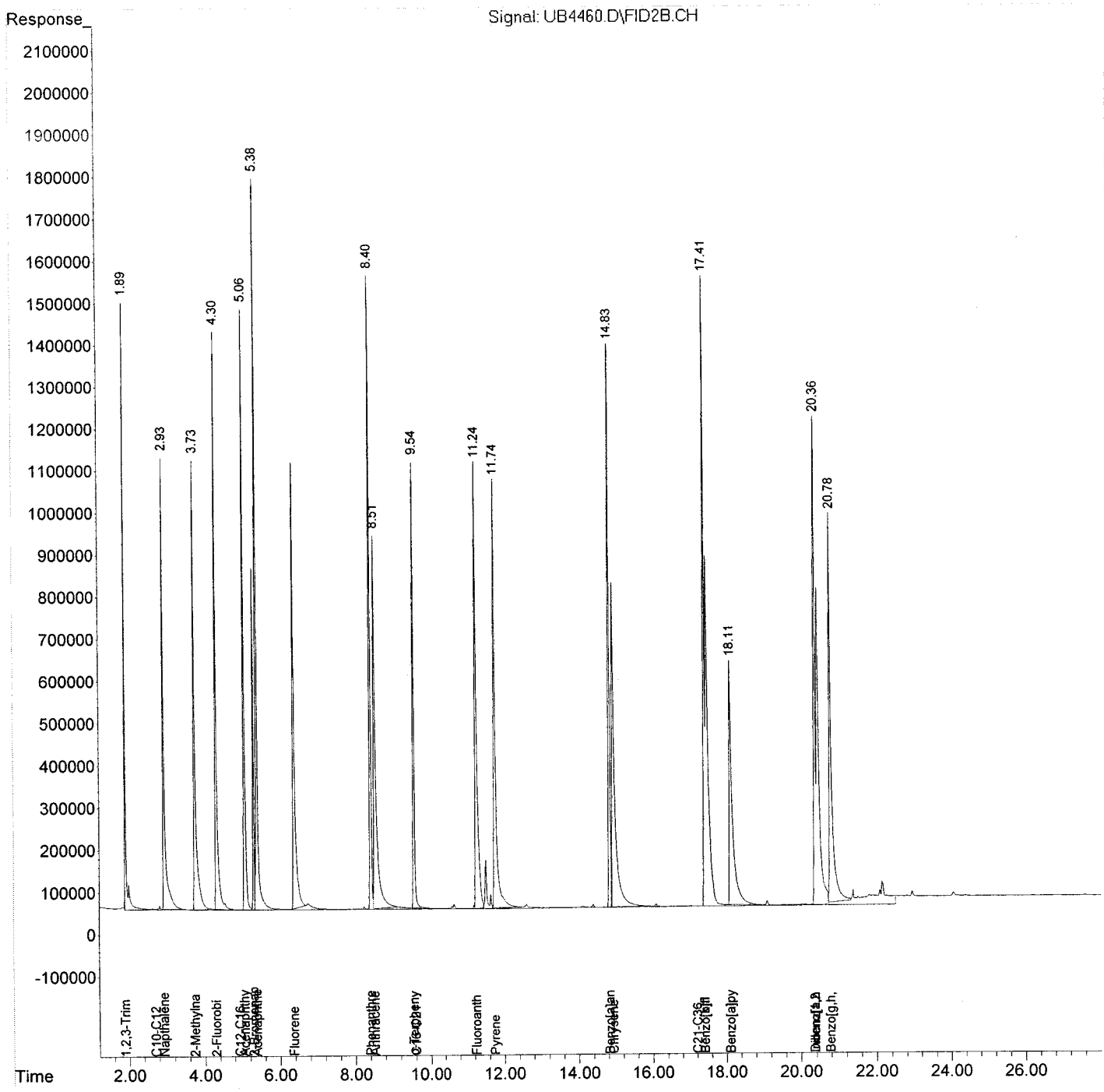
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4460.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 17:38
Operator : PSL
Sample : ARO,LCSDS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:13:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6397.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ALI,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:54:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	11.69	13667979	32.658	ng	m
Spiked Amount 50.000		Recovery = 65.32%			
Target Compounds					
20) H C9-C12	2.25	86903936	150.014	ng	
21) H C12-C16	5.20	5424904584	8933.073	ng	
22) H C16-C21	9.65	17084839265	30613.444	ng	
23) H C21-C40	18.70	6966882114	11847.740	ng	

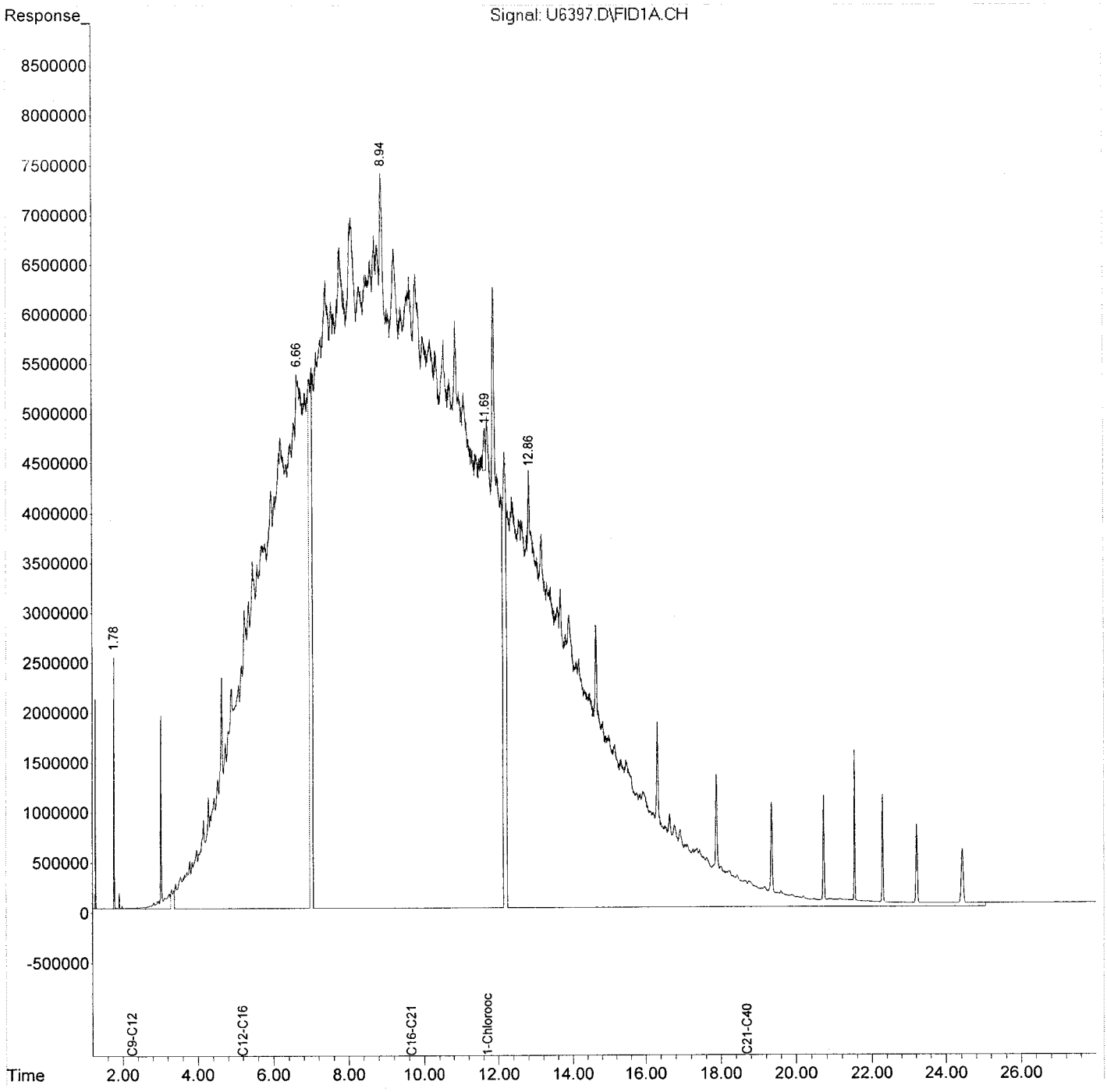
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6397.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ALI,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:54:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4472.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ARO,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:50:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.29	32984773	37.775	ng	
Spiked Amount 50.000		Recovery = 75.55%			
2) S 2-Bromonaphthalene	5.29	22467273	41.544	ng	m
Spiked Amount 50.000		Recovery = 83.09%			
3) S o-Terphenyl	9.56	26256898	36.227	ng	m
Spiked Amount 50.000		Recovery = 72.45%			
Target Compounds					
22) H C10-C12	2.70	49612767	69.483	ng	
23) H C12-C16	4.95	352519639	430.841	ng	
24) H C16-C21	9.60	4566519873	5332.732	ng	
25) H C21-C36	17.20	1215477719	1370.152	ng	

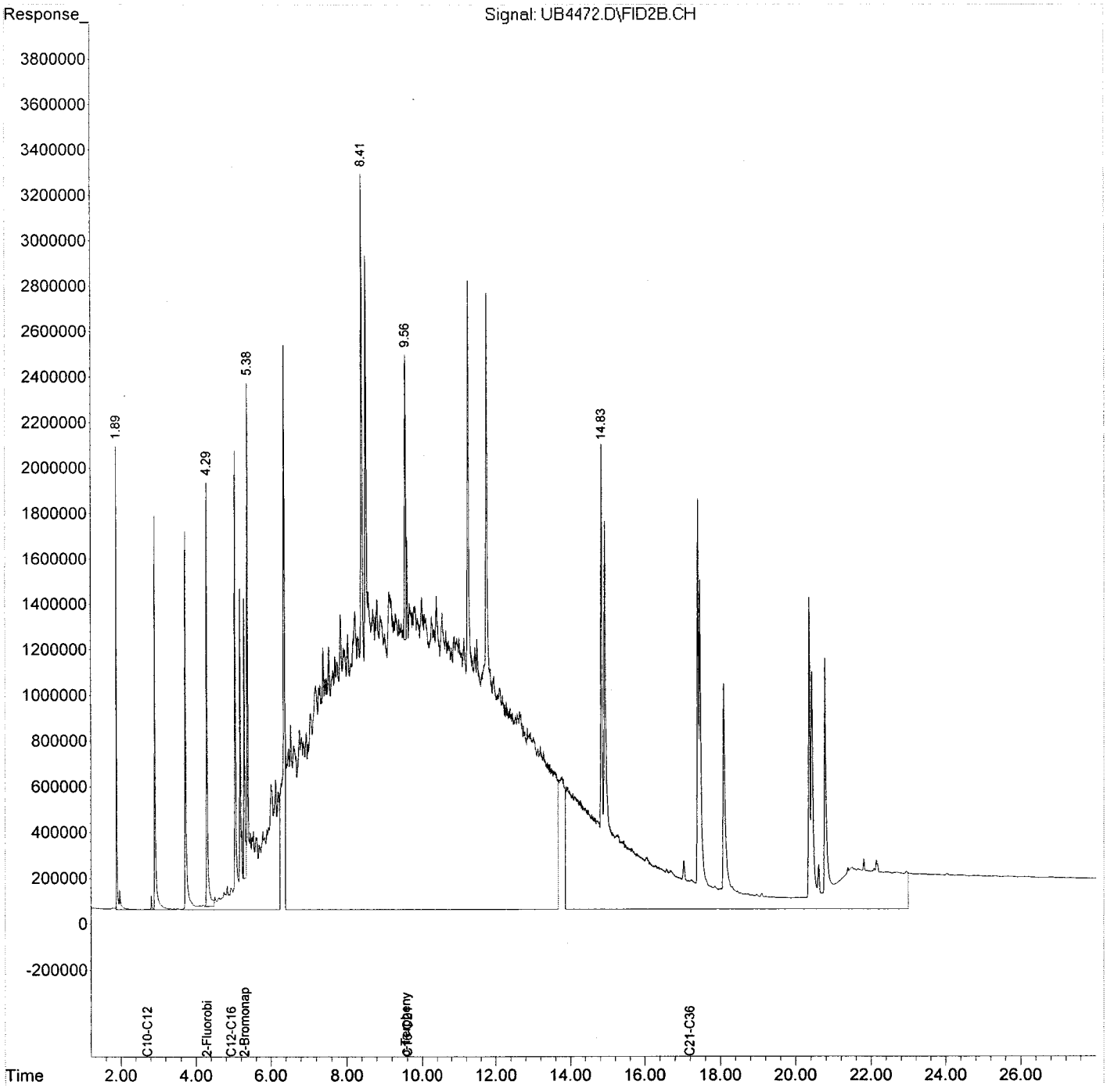
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4472.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:37
Operator : PSL
Sample : ARO,09273-008MS,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:50:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6386.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:58:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.69	4854811	11.600 ng
Spiked Amount	50.000		Recovery =	23.20%
	Target Compounds			
21) H	C12-C16	5.20	1081943857	1781.614 ng
22) H	C16-C21	9.65	3098241992	5551.580 ng
23) H	C21-C40	18.70	1130089022	1921.807 ng

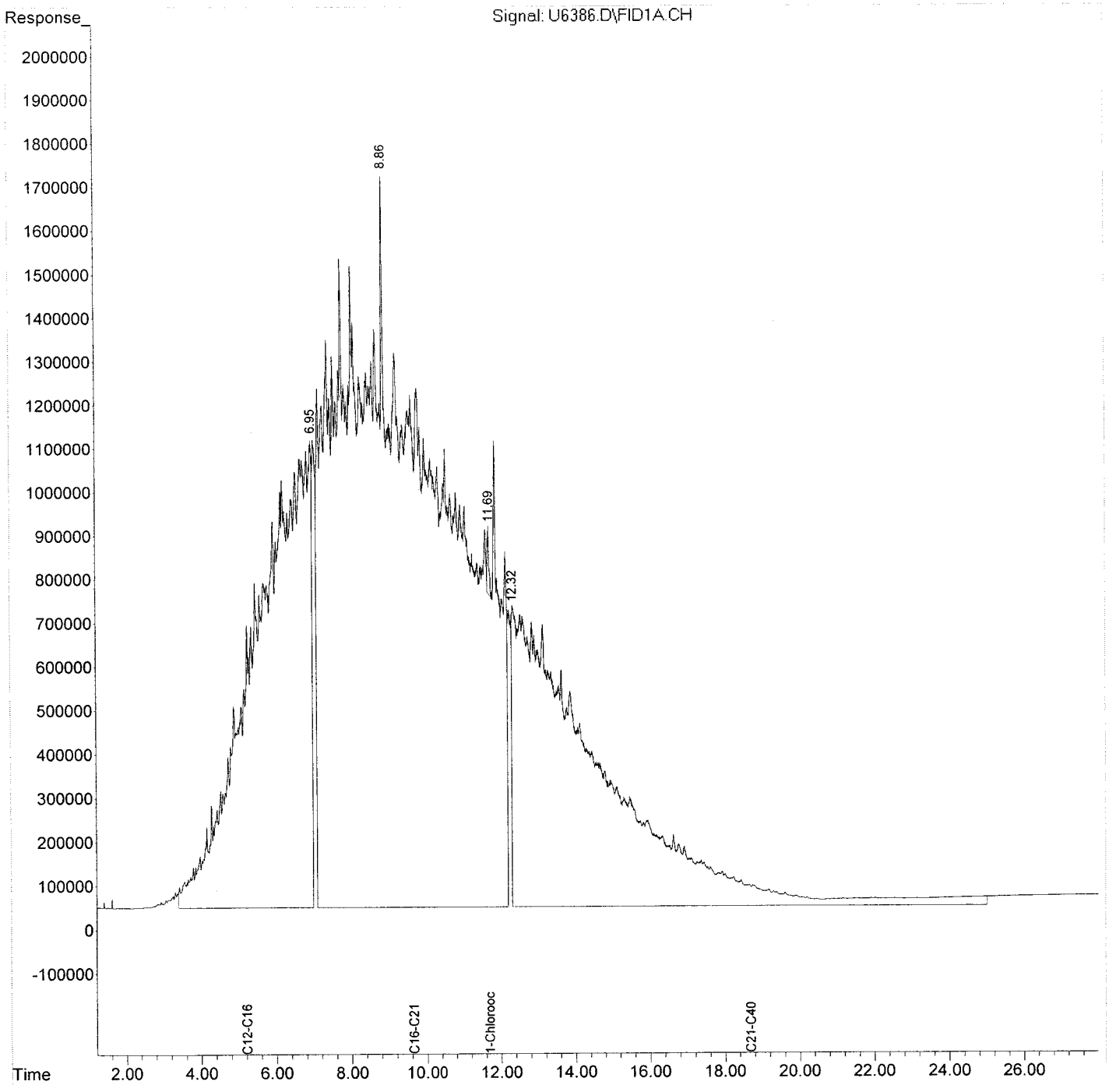
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6386.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:58:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4461.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:34:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.30	30757175	35.224	ng	m
Spiked Amount 50.000		Recovery = 70.45%			
2) S 2-Bromonaphthalene	5.31	23879668	44.156	ng	m
Spiked Amount 50.000		Recovery = 88.31%			
3) S o-Terphenyl	9.56	34064633	47.000	ng	m
Spiked Amount 50.000		Recovery = 94.00%			
Target Compounds					
23) H C12-C16	4.95	302024174	369.127	ng	
24) H C16-C21	9.60	4501917422	5257.290	ng	
25) H C21-C36	17.20	1202411541	1355.423	ng	

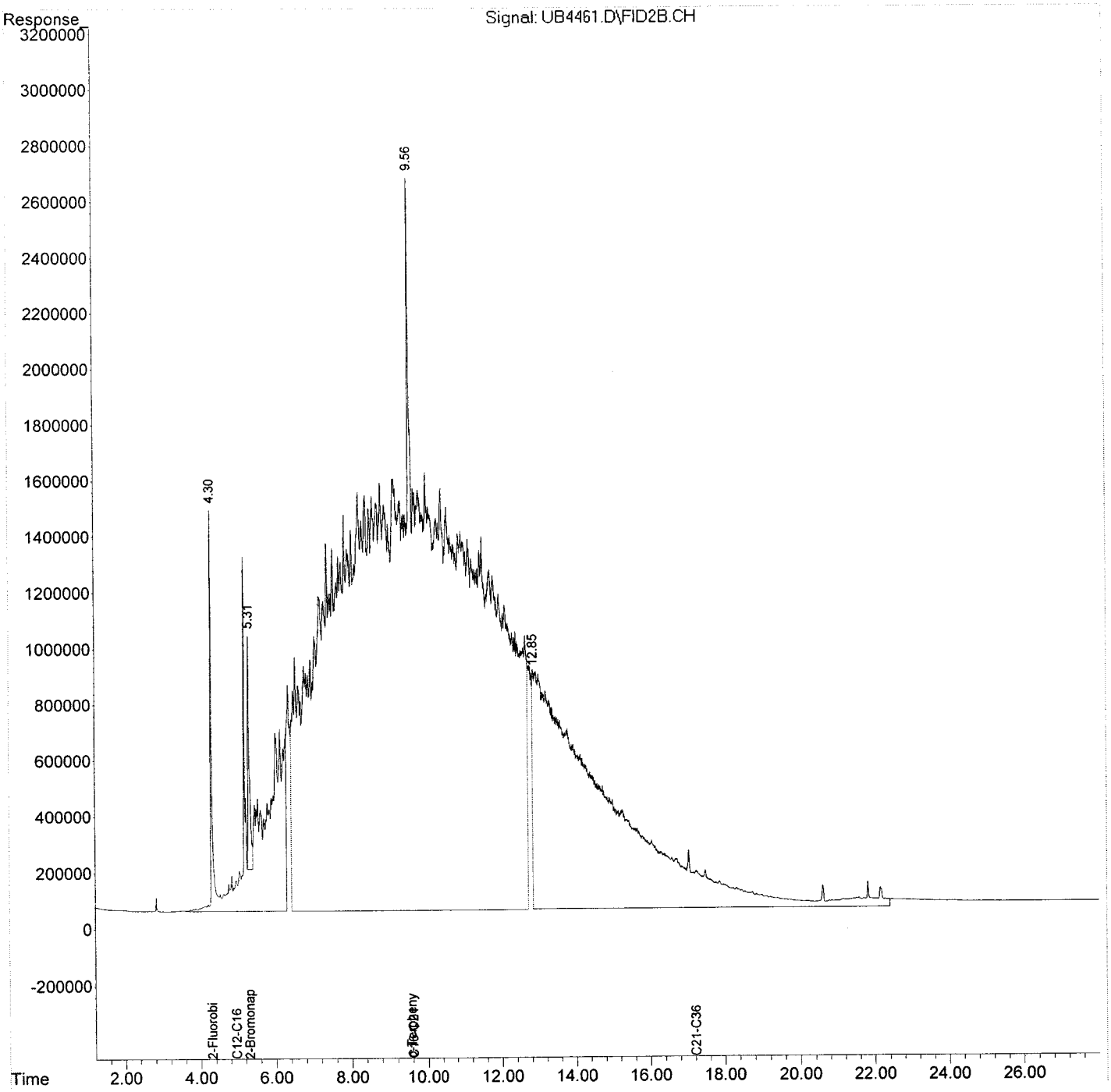
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4461.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 18:11
Operator : PSL
Sample : SW-207,09273-008,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:34:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6396.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 16 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:07:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.69	4705226	11.243 ng
Spiked Amount	50.000		Recovery =	22.49%
	Target Compounds			
21) H	C12-C16	5.20	1018321425	1676.848 ng
22) H	C16-C21	9.65	2827162435	5065.847 ng
23) H	C21-C40	18.70	1087443074	1849.284 ng

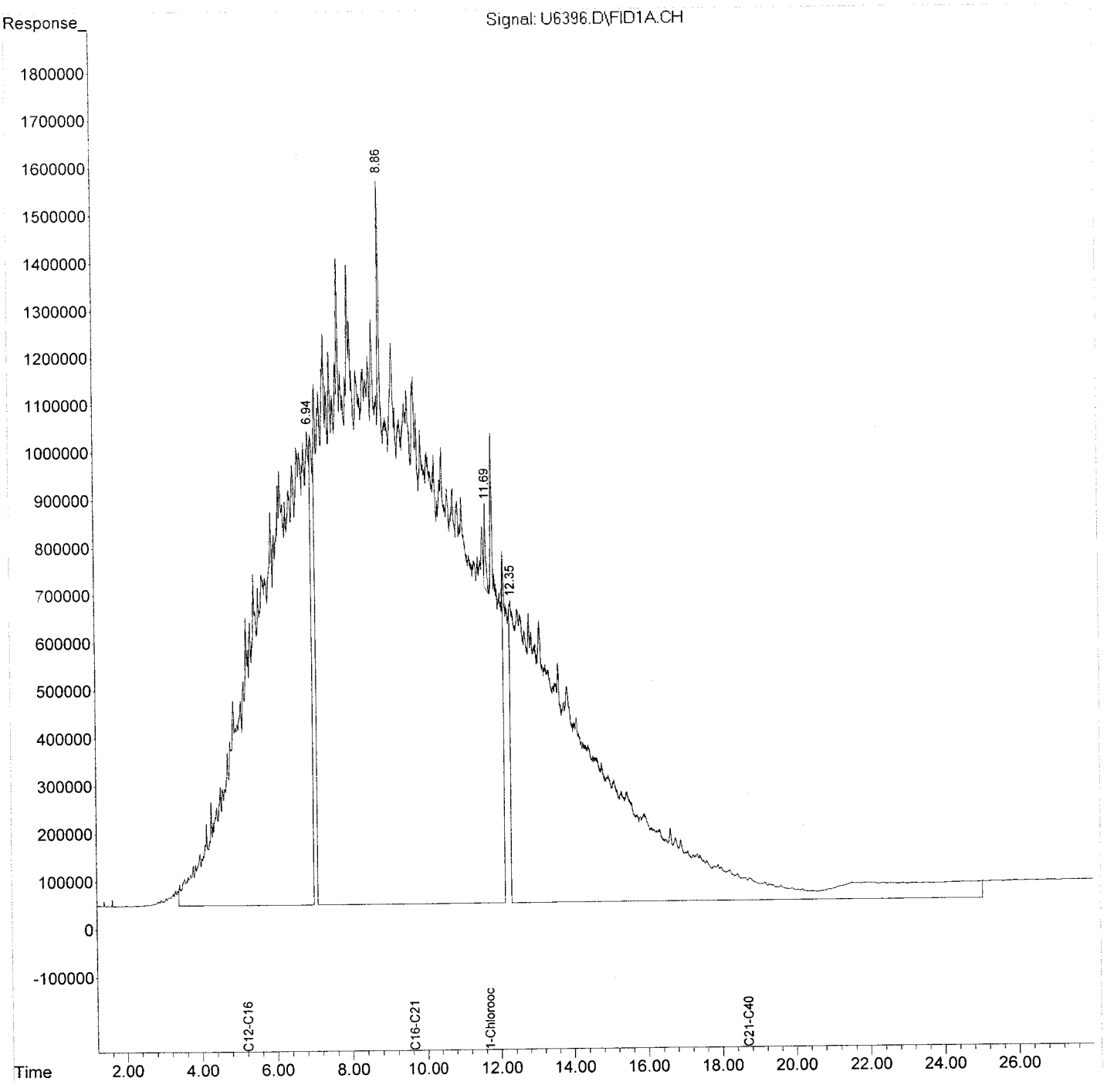
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6396.D
Signal(s) : FID1A.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,5
ALS Vial : 16 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 10:07:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4471.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 66 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:41:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 2-Fluorobiphenyl	4.29	35157986	40.264	ng	
Spiked Amount 50.000		Recovery = 80.53%			
2) S 2-Bromonaphthalene	5.30	23972439	44.327	ng	m
Spiked Amount 50.000		Recovery = 88.65%			
3) S o-Terphenyl	9.55	27548481	38.009	ng	m
Spiked Amount 50.000		Recovery = 76.02%			
Target Compounds					
23) H C12-C16	4.95	259158411	316.737	ng	
24) H C16-C21	9.60	4151284126	4847.824	ng	
25) H C21-C36	17.20	1035911589	1167.735	ng	

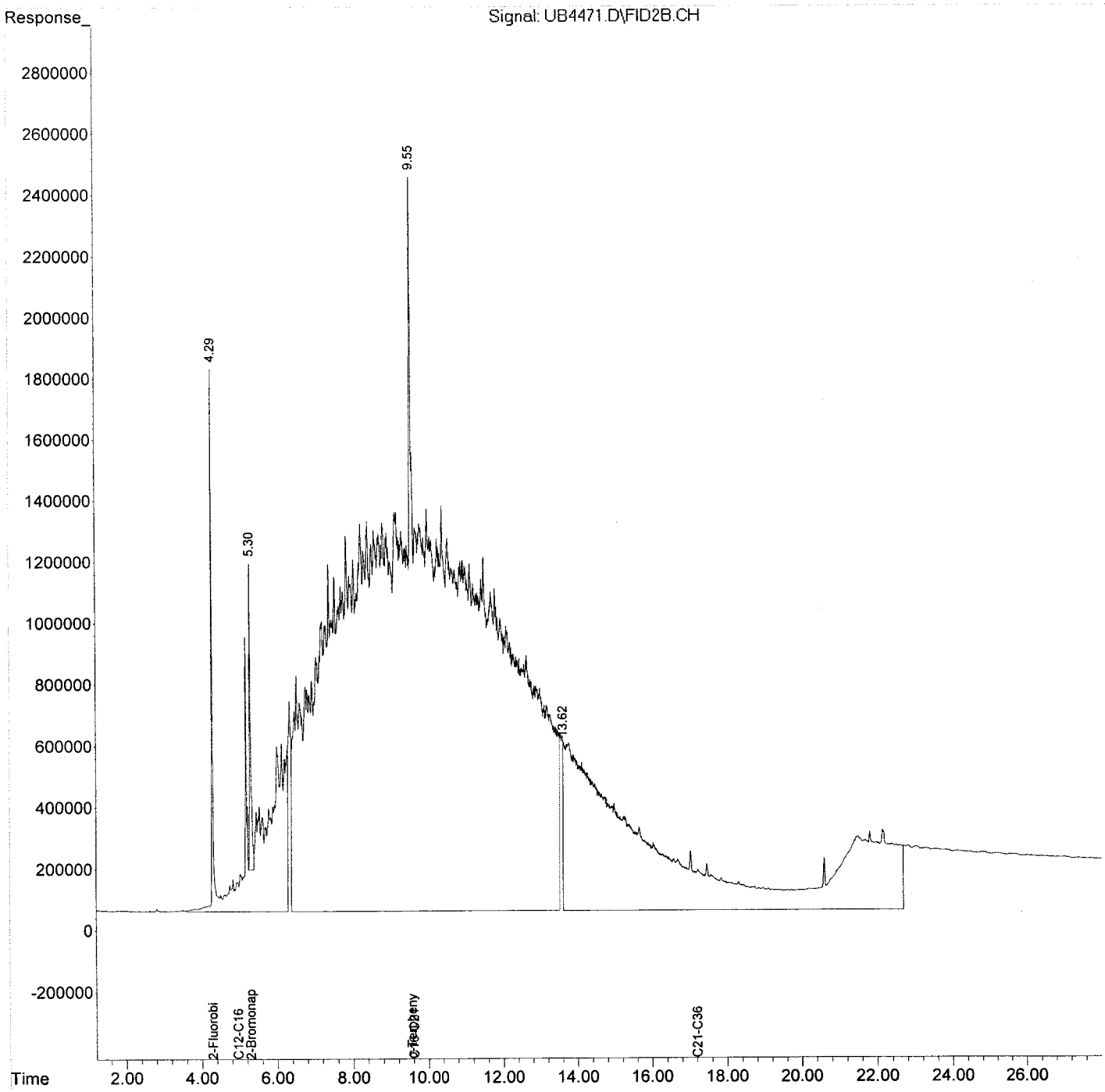
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4471.D
Signal(s) : FID2B.CH
Acq On : 25 Sep 2013 3:04
Operator : PSL
Sample : SW-207,09273-8D,S,5.00g,11.9,09/23/13,1
Misc : 130923-15,09/18/13,09/19/13,1
ALS Vial : 66 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 25 09:41:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS130923-15
Client ID: ARO
Date Received: NA
Date Extracted: 09/23/2013
Ali Date Analyzed: 09/24/2013
Data file: U6383.D
Dilution Factor: 1

GC Column: HP-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA
Aro Date Analyzed: 09/24/2013
Data file: UB4458.D
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	6.00
C12-C16 Aliphatics	ND		8.00	6.00
C16-C21 Aliphatics	ND		12.0	4.00
C21-C40 Aliphatics	ND		40.0	4.00
Total Aliphatics	ND		40.0	6.00
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	4.00
Total Aromatics	ND		32.0	4.00
Total NJ-EPH	ND		40.0	6.00

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6383.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ALI,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.67	14250129	34.049 ng
Spiked Amount 50.000		Recovery =	68.10%
Target Compounds			

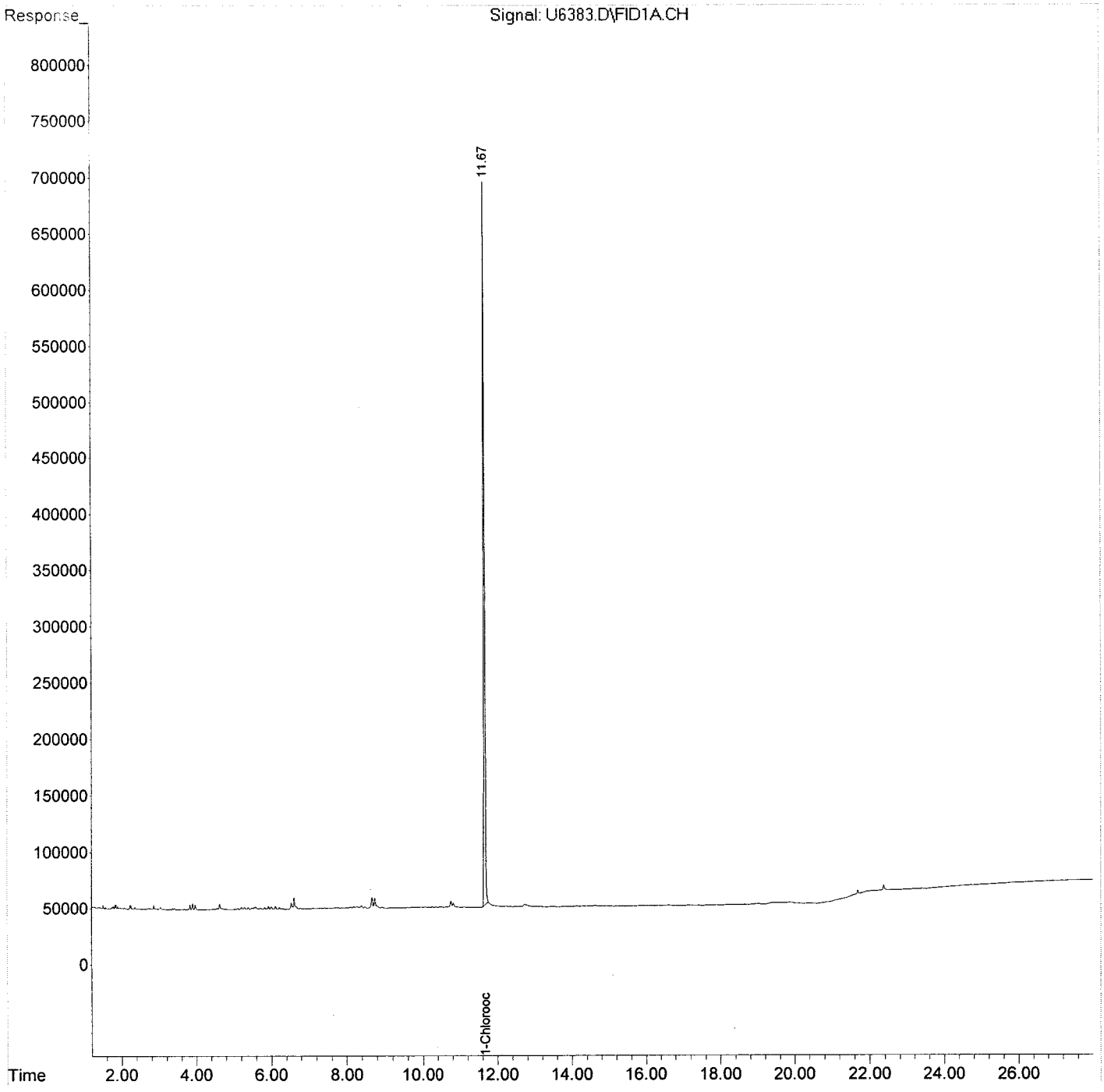
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : U6383.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ALI,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\UALI0903.M
Quant Title :
QLast Update : Tue Sep 03 13:52:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4458.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ARO,BLKS130923-15,S,5.00g,0.09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.30	34871990	39.936 ng
Spiked Amount 50.000		Recovery =	79.87%
2) S 2-Bromonaphthalene	5.32	21864541	40.429 ng
Spiked Amount 50.000		Recovery =	80.86%
3) S o-Terphenyl	9.54	26406793	36.434 ng
Spiked Amount 50.000		Recovery =	72.87%
Target Compounds			

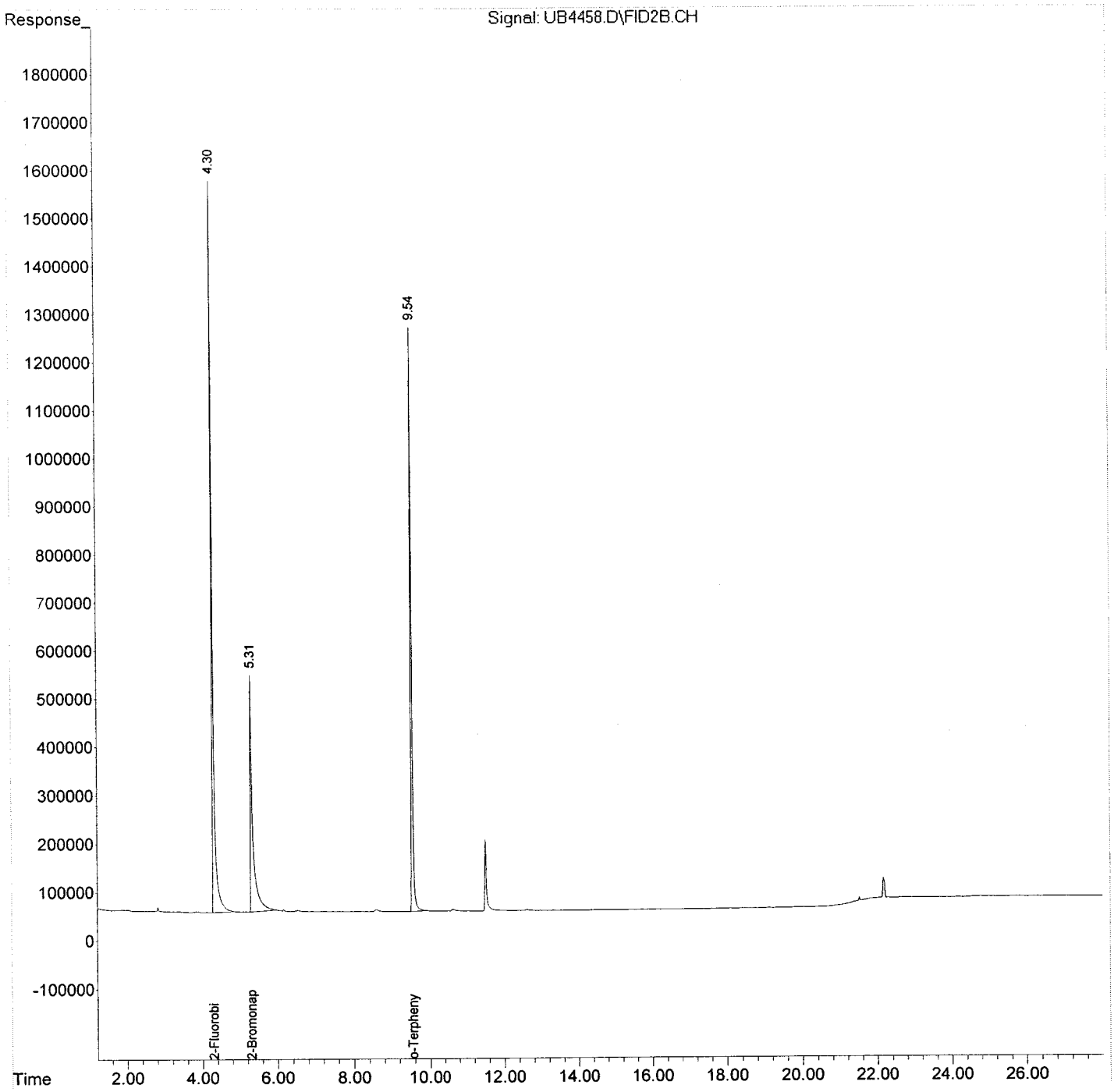
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\09-24-13\
Data File : UB4458.D
Signal(s) : FID2B.CH
Acq On : 24 Sep 2013 16:31
Operator : PSL
Sample : ARO,BLKS130923-15,S,5.00g,0,09/23/13,1
Misc : 130923-15,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 24 17:18:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\U2AR0903.M
Quant Title :
QLast Update : Tue Sep 03 13:37:09 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 442
SDG #: E13-09204, E13-09262, E13-09266, E13-09197, E13-09238, E13-09239, E13-08354

Matrix: Soil Method: 6020 Units: ppb (ug/L)

			9/23/13 12:50		9/23/13 13:09		9/23/13 13:56		9/23/13 14:42	
	INST.	ICV & CCV	ICV		CCV		CCV		CCV	
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	49.1	98.2	51.8	104	50.1	100	54.5	109
Antimony	0.250	50.0	54.5	109	54.1	108	53.2	106	53.5	107
Arsenic	0.250	50.0	51.4	103	52.9	106	50.6	101	54.8	110
Barium	2.50	50.0	52.8	106	53.2	106	52.6	105	53.4	107
Beryllium	0.200	50.0	53.0	106	51.8	104	50.8	102	51.8	104
Cadmium	0.125	50.0	53.9	108	53.1	106	52.9	106	54.0	108
Calcium	25.0	500	506	101	523	105	509	102	544	109
Chromium	0.500	50.0	50.2	100	51.7	103	50.0	100	54.5	109
Cobalt	0.500	50.0	49.9	99.8	52.4	105	50.2	100	54.2	108
Copper	0.500	50.0	50.3	101	52.6	105	50.1	100	54.5	109
Iron	12.5	500	491	98.2	512	102	491	98.2	546	109
Lead	0.125	50.0	53.7	107	53.2	106	52.8	106	54.1	108
Magnesium	12.5	500	487	97.4	509	102	496	99.2	543	109
Manganese	0.250	50.0	50.1	100	52.5	105	50.6	101	54.7	109
Mercury	0.120	5.00	4.54	90.8	4.63	92.6	4.66	93.2		
Nickel	0.500	50.0	50.1	100	53.0	106	50.1	100	54.6	109
Potassium	12.5	500	519	104	544	109	524	105	547	109
Selenium	1.00	50.0	51.6	103	52.5	105	51.0	102	54.9	110
Silver	0.125	10.0	9.33	93.3	9.25	92.5	9.02	90.2	9.39	93.9
Sodium	25.0	500	503	101	545	109	520	104	540	108
Thallium	0.125	50.0	52.1	104	52.7	105	52.5	105	53.4	107
Vanadium	0.500	50.0	49.8	99.6	51.4	103	49.7	99.4	54.0	108
Zinc	2.00	50.0	50.0	100	52.0	104	49.9	99.8	54.4	109

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 442
SDG #: E13-09204, E13-09262, E13-09266, E13-09197, E13-09238, E13-09239, E13-08354

Matrix: Soil Method: 6020 Units: ppb (ug/L)

			9/23/13 15:28		9/23/13 16:11					
	INST.	ICV & CCV	CCV		CCV					
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	51.3	103	53.1	106				
Antimony	0.250	50.0	54.8	110	54.5	109				
Arsenic	0.250	50.0	52.2	104	53.9	108				
Barium	2.50	50.0	54.5	109	53.4	107				
Beryllium	0.200	50.0	53.9	108	52.3	105				
Cadmium	0.125	50.0	53.5	107	54.2	108				
Calcium	25.0	500	521	104	543	109				
Chromium	0.500	50.0	51.1	102	53.5	107				
Cobalt	0.500	50.0	51.4	103	53.7	107				
Copper	0.500	50.0	52.0	104	53.4	107				
Iron	12.5	500	517	103	534	107				
Lead	0.125	50.0	54.0	108	53.5	107				
Magnesium	12.5	500	506	101	527	105				
Manganese	0.250	50.0	52.1	104	53.7	107				
Nickel	0.500	50.0	52.0	104	53.7	107				
Potassium	12.5	500	535	107	537	107				
Selenium	1.00	50.0	52.3	105	54.3	109				
Silver	0.125	10.0	9.51	95.1	9.42	94.2				
Sodium	25.0	500	522	104	532	106				
Thallium	0.125	50.0	54.0	108	54.0	108				
Vanadium	0.500	50.0	50.5	101	52.9	106				
Zinc	2.00	50.0	51.1	102	53.1	106				

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 442
SDG #: E13-09204, E13-09262, E13-09266, E13-09197, E13-09238, E13-09239, E13-08354

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

		9/23/13 12:54	9/23/13 13:13	9/23/13 13:59	9/23/13 14:46	9/23/13 15:32	9/23/13 16:14
ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	0.005	ND	ND	ND	ND	ND	ND
Antimony	0.00025	ND	ND	ND	ND	ND	ND
Arsenic	0.00025	ND	ND	ND	ND	ND	ND
Barium	0.0025	ND	ND	ND	ND	ND	ND
Beryllium	0.0002	ND	ND	ND	ND	ND	ND
Cadmium	0.000125	ND	ND	ND	ND	ND	ND
Calcium	0.025	ND	ND	ND	ND	ND	ND
Chromium	0.0005	ND	ND	ND	ND	ND	ND
Cobalt	0.0005	ND	ND	ND	ND	ND	ND
Copper	0.0005	ND	ND	ND	ND	ND	ND
Iron	0.013	ND	ND	ND	ND	ND	ND
Lead	0.000125	ND	ND	ND	ND	ND	ND
Magnesium	0.013	ND	ND	ND	ND	ND	ND
Manganese	0.00025	ND	ND	ND	ND	ND	ND
Mercury	0.00012	ND	ND	ND			
Nickel	0.0005	ND	ND	ND	ND	ND	ND
Potassium	0.013	ND	ND	ND	ND	ND	ND
Selenium	0.001	ND	ND	ND	ND	ND	ND
Silver	0.000125	ND	ND	ND	ND	ND	ND
Sodium	0.025	ND	ND	ND	ND	ND	ND
Thallium	0.000125	ND	ND	ND	ND	ND	ND
Vanadium	0.0005	ND	ND	ND	ND	ND	ND
Zinc	0.002	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

09/23/2013 01:44 PM

Batch (Page) #: 442
Associated Lab Case for Blank 1: E13-08354, E13-09197, E13-09204, E13-09238, E13-09239, E13-09262, E13-09266

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK BLKS130922-01
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 1:
08354-009,011,013; 09197-001~002,004~005,007,009
09197-010; 09204-006; 09238-005; 09239-001~003
09262-001~002; 09266-001~002

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Instrument: Agilent7500
Batch (Page) #: 442
SDG #: E13-09204, E13-09262, E13-09266, E13-09197, E13-09238, E13-09239, E13-08354

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	62600	59700	59.7	NA
Calcium	100000	-	65000	62400	62.4	NA
Iron	100000	-	64800	61700	61.7	NA
Potassium	100000	-	63800	60900	60.9	NA
Magnesium	100000	-	61400	59100	59.1	NA
Sodium	100000	-	62700	59700	59.7	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	1760	1730	86.5	NA
Titanium	2000	-	1350	1300	65.0	NA
Silver	-	20.0	-	16.1	80.5	80-120
Arsenic	-	20.0	-	16.1	80.5	80-120
Cadmium	-	20.0	-	16.6	83.0	80-120
Cobalt	-	20.0	-	16.4	82.0	80-120
Chromium	-	20.0	-	16.2	81.0	80-120
Copper	-	20.0	-	16.3	81.5	80-120
Manganese	-	20.0	-	16.2	81.0	80-120
Nickel	-	20.0	-	16.5	82.5	80-120
Zinc	-	20.0	-	16.8	84.0	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 442
SDG #: E13-08354, E13-09197, E13-09204, E13-09238, E13-09239, E13-09262, E13-09266

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	LCSS130922-01 TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	192	96.0			
Antimony	40.0	37.9	94.8			
Arsenic	40.0	38.2	95.5			
Barium	40.0	37.2	93.0			
Beryllium	40.0	35.8	89.5			
Cadmium	40.0	37.3	93.3			
Calcium	200	200	100			
Chromium	40.0	36.8	92.0			
Cobalt	40.0	38.4	96.0			
Copper	40.0	38.2	95.5			
Iron	200	214	107			
Lead	40.0	38.4	96.0			
Magnesium	200	190	95.0			
Manganese	40.0	37.8	94.5			
Mercury	0.250	0.223	89.2			
Nickel	40.0	38.0	95.0			
Potassium	200	191	95.5			
Selenium	40.0	37.1	92.8			
Silver	40.0	35.2	88.0			
Sodium	200	186	93.0			
Thallium	40.0	39.7	99.3			
Vanadium	40.0	37.6	94.0			
Zinc	40.0	38.5	96.3			

(1) Control Limits % Recovery = 85-115%

LCSS130922-01 9/23/13 13:48

08354-009,011,013; 09197-001~002,004~005,007,009
09197-010; 09204-006; 09238-005; 09239-001~003
09262-001~002; 09266-001~002

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 442
SDG #: E13-08354, E13-09197, E13-09204, E13-09238, E13-09239, E13-09262, E13-09266

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	9/23/13 14:11 SSR1	9/23/13 13:52 SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	3440	3310	NC	216					75-125
Antimony	39.0	ND	90.3	43.2					75-125
Arsenic	41.1	0.403	94.2	43.2					75-125
Barium	47.4	9.60	87.5	43.2					75-125
Beryllium	36.5	ND	84.5	43.2					75-125
Cadmium	37.0	ND	85.6	43.2					75-125
Calcium	327	134	89.4	216					75-125
Chromium	45.0	6.15	89.9	43.2					75-125
Cobalt	41.4	0.726	94.2	43.2					75-125
Copper	42.6	1.78	94.5	43.2					75-125
Iron	4140	4080	NC	216					75-125
Lead	41.8	2.43	91.1	43.2					75-125
Magnesium	330	133	91.2	216					75-125
Manganese	49.6	9.91	91.9	43.2					75-125
Mercury	0.263	0.019	90.4	0.270					75-125
Nickel	41.6	1.27	93.4	43.2					75-125
Potassium	380	184	90.7	216					75-125
Selenium	41.1	ND	95.1	43.2					75-125
Silver	35.3	0.235	81.2	43.2					75-125
Sodium	367	170	91.2	216					75-125
Thallium	41.6	ND	96.3	43.2					75-125
Vanadium	45.9	6.10	92.1	43.2					75-125
Zinc	43.2	3.38	92.2	43.2					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Spike sample concentration > 4 x Spike Concentration.

QC Sample 1: E13-09204-006
% Solids: 92.3
QC Sample 1 for following samples:
08354-009,011,013; 09197-001~002,004~005,007,009
09197-010; 09204-006; 09238-005; 09239-001~003
09262-001~002; 09266-001~002

QC Sample 2: _____
% Solids: _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 442
SDG #: E13-08354, E13-09197, E13-09204, E13-09238, E13-09239, E13-09262, E13-09266

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	9/23/13 13:52 S1	9/23/13 14:03 D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	3310	3410	2.98				
Antimony	NA	ND	ND	NC				
Arsenic	20	0.403	0.446	10.1				
Barium	20	9.60	9.69	0.933				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	134	132	1.50				
Chromium	20	6.15	6.41	4.14				
Cobalt	20	0.726	0.756	4.05				
Copper	20	1.78	1.82	2.22				
Iron	20	4080	4230	3.61				
Lead	20	2.43	2.41	0.826				
Magnesium	20	133	139	4.41				
Manganese	20	9.91	10.4	4.83				
Mercury	20	0.019	0.019	0				
Nickel	20	1.27	1.43	11.9				
Potassium	20	184	197	6.82				
Selenium	NA	ND	ND	NC				
Silver	20	0.235	0.231	1.72				
Sodium	20	170	180	5.71				
Thallium	NA	ND	ND	NC				
Vanadium	20	6.10	6.29	3.07				
Zinc	20	3.38	3.45	2.05				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1: E13-09204-006
% Solids: 92.3
QC Sample 1 for following samples:
08354-009,011,013; 09197-001~002,004~005,007,009
09197-010; 09204-006; 09238-005; 09239-001~003
09262-001~002; 09266-001~002

QC Sample 2: _____
% Solids: _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 442
SDG #: E13-08354, E13-09197, E13-09204, E13-09238, E13-09239, E13-09262, E13-09266

Matrix: Soil Concentration/Units: ppm (mg/kg)

	SERIAL DILUTION			POST SPIKE		
ANALYTE	9/23/13 13:52 SR	9/23/13 14:07 SDR	% Difference	9/23/13 14:15 SPR	SA	% Recovery
Aluminum	3310	3290	0.606			
Antimony	ND	ND	NC	47.5	43.2	110
Arsenic	0.403	ND	NC	45.1	43.2	103.0
Barium	9.60	ND	NC	56.8	43.2	109.0
Beryllium	ND	ND	NC	43.7	43.2	101
Cadmium	ND	ND	NC	42.9	43.2	99.3
Calcium	134	141	5.09	1120	864	114.0
Chromium	6.15	6.07	1.31	50.4	43.2	102.0
Cobalt	0.726	ND	NC	45.4	43.2	103.0
Copper	1.78	ND	NC	45.9	43.2	102.0
Iron	4080	4100	0.489			
Lead	2.43	2.67	9.41			
Magnesium	133	138	3.69	1120	864	114.0
Manganese	9.91	10.2	2.88			
Nickel	1.27	ND	NC	45.7	43.2	103.0
Potassium	184	177	3.88	1180	864	115.0
Selenium	ND	ND	NC	43.8	43.2	101
Silver	0.235	ND	NC	38.6	43.2	88.8
Sodium	170	162	4.82	1130	864	111.0
Thallium	ND	ND	NC	47.4	43.2	110
Vanadium	6.10	6.17	1.14	50.6	43.2	103.0
Zinc	3.38	ND	NC	47.4	43.2	102.0

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1: E13-09204-006
QC Sample 1 for following samples:
08354-009,011,013; 09197-001~002,004~005,007,009
09197-010; 09204-006; 09238-005; 09239-001~003
09262-001~002; 09266-001~002

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG442
September 23, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.D	STD BLANK	1273170		66379		486349		2706052		2840076		1370704		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
Sample Lower Limit		891219	70	46465	70	340444	70	1894236	70	1988053	70	959493	70	
QC Lower Limit		1018536	80	53103	80	389079	80	2164842	80	2272061	80	1096563	80	
Sample & QC Upper Limit		1527804	120	79655	120	583619	120	3247262	120	3408091	120	1644845	120	
005CALS.D	STD1	1285121	101	67005	101	476411	98	2661296	98	2848962	100	1366265	100	
006CALS.D	STD2	1287296	101	69100	104	477476	98	2682286	99	2893930	102	1372134	100	
007CALS.D	STD3	1303866	102	68740	104	481294	99	2688988	99	2910441	102	1373584	100	
008CALS.D	STD4	1263482	99	68074	103	488994	101	2670093	99	2933869	103	1369150	100	
011ICSA.D	ICSA	1115446	88	78974	119	580317	119	2252336	83	2634314	93	1140341	83	
012ICSB.D	ICSAB	1117915	88	80495	120	575274	118	2263869	84	2636761	93	1137926	83	
014_ICV.D	ICV	1282287	101	71627	108	496372	102	2774709	103	3051662	107	1447938	106	
015_ICB.D	ICB	1275098	100	72047	109	492182	101	2711231	100	2941680	104	1414806	103	
016SMPL.D	E13-09099-001	1256864	99	73453	111	516483	106	2796414	103	3068976	108	1403656	102	
017SMPL.D	E13-09099-002	1255341	99	77458	117	514185	106	2709220	100	2995413	105	1369774	100	
018SMPL.D	E13-09099-003	1260238	99	73467	111	517211	106	2728142	101	3068334	108	1377477	100	
0196CCV.D	CCV	1258594	99	68907	104	498412	102	2740872	101	3002058	106	1415524	103	
0206CCB.D	CCB	1272583	100	72002	108	510906	105	2803092	104	2988695	105	1425880	104	
022SMPL.D	E13-09196-005	1217099	96	75676	114	526331	108	2618467	97	2902361	102	1337061	98	
023SMPL.D	E13-09267-001	1281719	101	73449	111	508174	104	2707675	100	2940844	104	1409676	103	
024SMPL.D	E13-09267-002	1271415	100	72830	110	512594	105	2688910	99	2930128	103	1396365	102	
025SMPL.D	E13-09267-003	1309162	103	73466	111	531770	109	2715537	100	2914798	103	1389507	101	
026SMPL.D	E13-09267-004	1261817	99	73201	110	511164	105	2688934	99	2980721	105	1407854	103	
027SMPL.D	E13-09267-005	1279402	100	72775	110	522840	108	2710792	100	3111801	110	1460365	107	
028SMPL.D	BLKS130922-01	1292556	102	71613	108	500526	103	2785296	103	3085854	109	1496180	109	
029SMPL.D	LCSS130922-01	1258813	99	70969	107	493829	102	2718317	100	3059092	108	1457127	106	
030SMPL.D	E13-09204-006	1291470	101	72032	109	507507	104	2771596	102	3046226	107	1465913	107	
0316CCV.D	CCV	1282086	101	70823	107	494393	102	2770916	102	3034831	107	1456812	106	
0326CCB.D	CCB	1235805	97	71849	108	480357	99	2630113	97	2947109	104	1395913	102	
033SMPL.D	E13-09204-006DUP	1275607	100	69229	104	505420	104	2737569	101	3030331	107	1462221	107	
034SMPL.D	E13-09204-006SD	1272576	100	72263	109	495219	102	2722355	101	2986527	105	1394399	102	
035SMPL.D	E13-09204-006MS	1346538	106	73582	111	531068	109	2903723	107	3196811	113	1486332	108	
036SMPL.D	E13-09204-006PS	1250887	98	74707	113	511777	105	2714602	100	3010116	106	1405776	103	
037SMPL.D	E13-09262-001	1220955	96	74029	112	509503	105	2589778	96	3005414	106	1363495	99	
038SMPL.D	E13-09262-002	1269054	100	71651	108	516765	106	2619274	97	3058762	108	1354217	99	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

E13-09197 0509

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG442
September 23, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.D	STD BLANK	1273170		66379		486349		2706052		2840076		1370704		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Sample Lower Limit	891219	70	46465	70	340444	70	1894236	70	1988053	70	959493	70	
	QC Lower Limit	1018536	80	53103	80	389079	80	2164842	80	2272061	80	1096563	80	
	Sample & QC Upper Limit	1527804	120	79655	120	583619	120	3247262	120	3408091	120	1644845	120	
039SMPL.D	E13-09266-001	1231159	97	**84736**	**128**	583056	120	2680051	99	2936433	103	1308192	95	**A**
040SMPL.D	E13-09266-002	1182491	93	**94303**	**142**	**670941**	**138**	2602199	96	2875915	101	1294115	94	**A**
041SMPL.D	E13-09197-004	1276154	100	75147	113	544615	112	2757331	102	3165883	111	1420883	104	
042SMPL.D	E13-09197-005	1308351	103	78163	118	541705	111	2656680	98	3086122	109	1372479	100	
0436CCV.D	CCV	1323521	104	71948	108	497544	102	2778631	103	3085102	109	1448464	106	
0446CCB.D	CCB	1298669	102	72649	109	504885	104	2769871	102	3079040	108	1429428	104	
045SMPL.D	E13-09197-007	1321216	104	**80128**	**121**	562590	116	2765877	102	3118978	110	1413344	103	**A**
046SMPL.D	E13-09197-009	1292206	101	78370	118	557540	115	2758437	102	3125708	110	1400995	102	
047SMPL.D	E13-09197-010	1163279	91	**80200**	**121**	513396	106	2450081	91	2798332	99	1237306	90	**A**
048SMPL.D	E13-09197-001	1251626	98	79511	120	558582	115	2649504	98	3019402	106	1332365	97	
049SMPL.D	E13-09197-002	1291882	101	70663	106	571565	118	2752446	102	3096900	109	1361635	99	
050SMPL.D	E13-09238-005	1315133	103	74620	112	518013	107	2803802	104	3063457	108	1414939	103	
051SMPL.D	E13-09239-001	1248971	98	73610	111	487614	100	2686525	99	2897817	102	1343436	98	
052SMPL.D	E13-09239-002	1281846	101	73514	111	511360	105	2768054	102	3016952	106	1398139	102	
053SMPL.D	E13-09239-003	1324960	104	73669	111	514651	106	2860225	106	3087838	109	1425837	104	
054SMPL.D	E13-08354-009	1295698	102	77898	117	558968	115	2760179	102	3009522	106	1361306	99	
0556CCV.D	CCV	1269210	100	73757	111	507527	104	2775212	103	3048236	107	1408399	103	
0566CCB.D	CCB	1331918	105	73122	110	528115	109	2910442	108	3113210	110	1447100	106	
057SMPL.D	E13-08354-011	1251058	98	**85286**	**128**	**595935**	**123**	2583519	95	2877451	101	1236902	90	**A**
058SMPL.D	E13-08354-013	1276329	100	**82225**	**124**	**590832**	**121**	2675656	99	2974948	105	1274538	93	**A**
059SMPL.D	E13-09266-001	1260443	99	**80564**	**121**	555200	114	2757984	102	3030713	107	1405916	103	**A**
060SMPL.D	E13-09266-002	1320834	104	77295	116	541142	111	2798366	103	3179453	112	1479948	108	
061SMPL.D	E13-09197-007	1288017	101	77317	116	535849	110	2786398	103	3105941	109	1447751	106	
062SMPL.D	E13-09197-010	1282945	101	76378	115	532296	109	2765969	102	3138112	110	1446894	106	
063SMPL.D	E13-08354-011	1332729	105	75638	114	533174	110	2822473	104	3159131	111	1450759	106	
064SMPL.D	E13-08354-013	1340117	105	76015	115	531418	109	2833407	105	3188097	112	1455174	106	
065SMPL.D	E13-09266-001	1309296	103	76851	116	537737	111	2870125	106	3184037	112	1479411	108	
0666CCV.D	FINAL CCV	1292635	102	72938	110	498142	102	2782680	103	3118003	110	1460456	107	
0676CCB.D	FINAL CCB	1266118	99	74037	112	501120	103	2847216	105	3150366	111	1461778	107	

Note: Internal Standards failed, no affected data was reported from this analysis.

A* in last column indicates the analysis has failed QC criteria

Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)

[1] = [He]; [2] = [No Gas]

E13-09197 0510

SAMPLE TRACKING

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER	REPORTING INFO
Company: EWMA	REPORT TO:
Address:	Address:
Telephone #:	Attn:
Fax #:	FAX #
Project Manager: Anthony Kaufman	INVOICE TO:
Sampler: GB	Address:
Project Name: 50 Division Ave	
Project Location (State): NJ	
Bottle Order #:	Attn:
Quote #: 208322	PO #

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

SEE BELOW (under comments section for explanation)

Verbal/Fax 24 hr* 48 hr* 72 hr* 1 wk* **2 wk/Std**

Hard Copy Other *call for price **3 wk/Std**

Results needed by:

Rush TAT Charge **

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format

Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

DISKETTE

SRP. dbf format
SRP.wk1 format
lab approved custom EDD
NO DISK/CD REQ'D

Cooler Temp 4 °C

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS

 # BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOC	BN	Lead	RCRA metals	PCBs	Pesticide	Herbicide	EPH	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
AOC-5-1	9-9.5	9-17-13	1450	S	4	1	X		X												1	3
AOC-5-2	7.5-8		1500		4	2	X		X												1	3
AOC-7-1	8-8.5		1400		1	3								X							1	
AOC-7-2	11-11.5		1432		4	4	X	X		X	X	X	X	X							1	3
AOC-7-3	9.5-10		1547		4	5	X	X		X	X	X	X	X							1	3
AOC-7-4	9.5-10		1603		1	6								X							1	
AOC-8	12.5-13		1330		4	7	X	X		X		X	X	X							1	3
AOC-12-1	1.5-2		1125		1	8								X							1	
AOC-12-2	3.5-4		1105		4	9	X	X		X	X	X	X	X							1	3
AOC-6	18.5-19		1700		4	10	X	X		X		X	X	X							1	3

Known Hazard: Yes or No Describe: Conc. Expected: Low Med High

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

MDL Req: Old GWQS - 11/05 GWQS - SCC - OTHER (SEE COMMENTS)

Signature/Company	Date	Time	Signature/Company
Relinquished by:	9-17-13	1900	Received by:
Relinquished by:	9/18/13	1625	Received by: 9/18/13 1625
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2
QAM-025 (OQA-QAM025) - used for: all other fuel oils and unknown contamination

Lab Case # 09197

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

01/2007 rev

Ref No: G 393600196

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

E13-09197: 50 DIVISION AVE. - 208322

To: Anthony Kaufman
EWMA - HQ
Fax: 1(973) 560-0400
EMail: anthony.kaufman@ewma.com

Report To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Anthony Kaufman

Bill To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Anthony Kaufman

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced		Sep 18, 2013 @ 16:25	Sep 25, 2013	Oct 02, 2013	Oct 09, 2013 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

**** QC Requirement (must meet):** NJ IGW

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
09197-001	AOC-5-1	9/9.5	09/17/13@14:50	Soil	mg/Kg (ppm)	
09197-002	AOC-5-2	7.5/8	09/17/13@15:00	Soil	mg/Kg (ppm)	
09197-003	AOC-7-1	8/8.5	09/17/13@14:00	Soil	mg/Kg (ppm)	
09197-004	AOC-7-2	11/11.5	09/17/13@14:32	Soil	mg/Kg (ppm)	
09197-005	AOC-7-3	9.5/10	09/17/13@15:47	Soil	mg/Kg (ppm)	
09197-006	AOC-7-4	9.5/10	09/17/13@16:03	Soil	mg/Kg (ppm)	
09197-007	AOC-8	12.5/13	09/17/13@13:30	Soil	mg/Kg (ppm)	
09197-008	AOC-12-1	1.5/2	09/17/13@11:25	Soil	mg/Kg (ppm)	
09197-009	AOC-12-2	3.5/4	09/17/13@11:05	Soil	mg/Kg (ppm)	
09197-010	AOC-6	18.5/19	09/17/13@17:00	Soil	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/1/2013
	Lead - Pb	Analyze	6020	STD/2 WKS	3/16/2014
002	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/1/2013
	Lead - Pb	Analyze	6020	STD/2 WKS	3/16/2014
003	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
004	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/1/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Cancel	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013

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Fax: 973 989 5288

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Integrated Analytical Laboratories LLC

PROJECT INFORMATION

E13-09197: 50 DIVISION AVE. - 208322

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-Fractionated	Analyze	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013
005	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/1/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Cancel	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	NJ-EPH-Fractionated	Analyze	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013
006	NJ-EPH-C40	Cancel	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	NJ-EPH-Fractionated	Analyze	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
007	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/1/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013
008	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
009	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/1/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013
010	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/1/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/1/2013
	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	RUSH 1 WK	10/1/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/1/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/1/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/1/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/15/2013

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Integrated Analytical Laboratories LLC

PROJECT INFORMATION

E13-09197: 50 DIVISION AVE. - 208322

Project Notes:

NOTE 1 taken by Ellen on 09/19/2013 10:00
3 ENCORS RECEIVED - 1 INTO MEOH/2 INTO H2O

NOTE 2 taken by Ellen on 09/19/2013 10:01
AS PER ANTHONY K., REPORT TCL LISTS & FOR EPH RUN AS EPH-C40.

REV 1 taken by Ellen on 09/19/2013 01:47
AS PER ANTHONY K., HOLD VO, BN, PEST, HERB, PCB & METALS ON SAMPLES #4, #5 & #9. NOTIFIED BN EXTRACTIONS ALREADY DONE.

REV 2 taken by Ellen on 09/19/2013 04:35
AS PER ANTHONY K., PLEASE RUN VO, BN, PEST, HERB, PCB & METALS ON SAMPLES #4, #5 & #9.

EPH-C40 ON 1 WK TAT, FAX DUE 9/15.

REV 3 taken by melissa on 09/23/2013 03:35
DUE TO HIGH EPH-C40 CONCENTRATIONS, SAMPLES 004, 005 & 006 NEED TO BE ANALYZED FOR EPH-FRACTIONATED.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 13** **09197** CLIENT: EWMA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

KEY

✓ = YES/NA

✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact
✓	no-Missing Bottles
✓	no-Extra Bottles
✓	Sufficient Sample Volume
✓	no-headspace/bubbles in VOs
✓	Labels intact/correct
✓	pH Check (exclude VOs)[1]
✓	Correct bottles/preservative
✓	Sufficient Holding/Prep Time[1]
☐	Multiphasic Sample
☐	Sample to be Subcontracted
✓	**Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 9/18/13

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☐

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 9.19.13

Laboratory Custody Chronicle

IAL Case No.
E13-09197

Client EWMA - HQ

Project 50 DIVISION AVE. - 208322

Received On 9/18/2013@16:25

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	09197-001	Soil	n/a	n/a	9/21/13	Xing
"	-002	"	n/a	n/a	9/21/13	Xing
"	-004	"	n/a	n/a	9/20/13	Mei
"	-005	"	n/a	n/a	9/21/13	Xing
"	-007	"	n/a	n/a	9/21/13	Xing
"	-009	"	n/a	n/a	9/21/13	Xing
"	-010	"	n/a	n/a	9/21/13	Xing

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BN + 15	-004	Soil	9/19/13	Kou-Liang	9/20/13	Eleanor
"	-005	"	9/19/13	Kou-Liang	9/20/13	Eleanor
"	-007	"	9/19/13	Kou-Liang	9/24/13	Eleanor
"	-009	"	9/19/13	Kou-Liang	9/20/13	Eleanor
"	-010	"	9/19/13	Kou-Liang	9/20/13	Eleanor

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Herbicides	-004	Soil	9/26/13	Archimede	9/30/13	Justyna
"	-005	"	9/26/13	Archimede	9/30/13	Justyna
"	-007	"	9/26/13	Archimede	9/30/13	Justyna
"	-009	"	9/26/13	Archimede	9/30/13	Justyna
"	-010	"	9/26/13	Archimede	9/30/13	Justyna
NJ-EPH-C40	-003	Soil	9/19/13	Archimede	9/24/13	William
"	-007	"	9/19/13	Archimede	9/24/13	William
"	-008	"	9/19/13	Archimede	9/24/13	William
"	-009	"	9/19/13	Archimede	9/24/13	William
"	-010	"	9/19/13	Archimede	9/24/13	William
NJ-EPH-Fractionated	-004	Soil	9/23/13	Archimede	9/24/13	Latha
"	-005	"	9/23/13	Archimede	9/24/13	Latha
"	-006	"	9/23/13	Archimede	9/24/13	Latha
TCL PCB	-004	Soil	9/23/13	Archimede	9/24/13	Justyna
"	-005	"	9/23/13	Archimede	9/24/13	Justyna
"	-009	"	9/23/13	Archimede	9/24/13	Justyna
TCL Pesticides	-004	Soil	9/23/13	Archimede	9/25/13	Iwona
"	-005	"	9/23/13	Archimede	9/25/13	Iwona
"	-007	"	9/23/13	Archimede	9/25/13	Iwona
"	-009	"	9/23/13	Archimede	9/25/13	Iwona
"	-010	"	9/23/13	Archimede	9/25/13	Iwona

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Lead - Pb	-001	Soil	9/22/13	Lisa	9/23/13	Danielle
"	-002	"	9/22/13	Lisa	9/23/13	Danielle
TAL Metals	-004	Soil	9/22/13	Lisa	9/23/13	Danielle
"	-005	"	9/22/13	Lisa	9/23/13	Danielle
"	-007	"	9/22/13	Lisa	9/23/13	Danielle
"	-009	"	9/22/13	Lisa	9/23/13	Danielle

Laboratory Custody Chronicle

IAL Case No.

E13-09197

Client EWMA - HQ

Project 50 DIVISION AVE. - 208322

Received On 9/18/2013@16:25

"	-010	"	9/22/13	Lisa	9/23/13	Danielle

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: **50 DIVISION AVE. - 208322**
IAL Case Number: **E13-09198**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E13-09198

Client EWMA - HQ

Project 50 DIVISION AVE. - 208322

Received On 9/18/2013@16:25

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09198-001	AOC-9-1	0/0.5	9/18/2013@13:15	Soil	1
09198-002	AOC-9-2	0/0.5	9/18/2013@13:18	Soil	1
09198-003	AOC-12-3	1.5/2	9/18/2013@12:15	Soil	4
09198-004	AOC-12-4	2/2.5	9/18/2013@12:00	Soil	1
09198-005	AOC-7-2	n/a	9/18/2013@11:48	Aqueous	6
09198-006	AOC-7-4	n/a	9/18/2013@11:27	Aqueous	6
09198-007	EX. WELL	n/a	9/18/2013@13:56	Aqueous	12
09198-008	FB	n/a	9/18/2013@12:00	Aqueous	6
09198-009	TB	n/a	9/18/2013	Aqueous	2

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

This report was finalized on October 03, 2013

* Methodology is included in the IAL Project Information Page

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received five (5) aqueous and four (4) soil sample(s) from Environmental Waste Management Associates, LLC. (IAL SDG # E13-09198, Project: 50 DIVISION AVE. - 208322) on September 18, 2013 for the analysis of:

(2) TCL VO + 15
(3) TCL VO minus 1,4 Dioxane + 15
(1) TCL BN + 15
(2) TCL BN + SIMS + 15 + 1,4-Dioxane
(1) TCL BNA + SIMS + 15 + 1,4-Dioxane
(4) TCL PCB
(4) TCL Pesticides
(3) Herbicides
(1) GC Fingerprint
(2) NJ-EPH-C40
(4) TAL Metals
(1) Cyanide, Total

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

10/3/13
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Volatiles By 8260B/8011

Batch ID: 130919	**Matrix: Aqueous**

QC

- Calibration Curve met QC criteria.
- Internal Standards Recovery met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.

E13-09198

- All samples were analyzed within holding time.
- No dilutions were required on these samples.

9/26/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Volatiles By 8260B

Batch ID: F130923-01	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Internal Standards Recovery met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.

E13-09198

- All samples were analyzed within holding time.
- 09198-003 was run straight.

9/24/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Microextractable By 8011

Batch ID: 130923-08	**Matrix: Aqueous**

QC

- Calibration Curve met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.

E13-09198

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- #005, #006, #007 needed no dilution

Signature 9/24/2013 Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Semivolatiles By **8270C/625**

Batch ID: 130920-01	**Matrix:** Aqueous

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E13-09198
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- All samples were analyzed as a straight run and no further dilutions were required.

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-diphenylhydrazine will be directly compared to the applicable criteria for azobenzene and/or 1,2-diphenylhydrazine.

Signature 9/24/2013 Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Semivolatiles By **8270C/625**

Batch ID: 130919-02	**Matrix:** Soil

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E13-09198
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- All samples were analyzed as a straight run and no further dilutions were required.

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-diphenylhydrazine will be directly compared to the applicable criteria for azobenzene and/or 1,2-diphenylhydrazine.

9/20/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

PCB By 8082

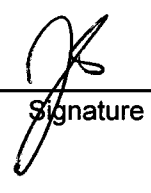
Batch ID: 130923-16	**Matrix: Aqueous**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 007
- The following samples were cleaned up using method 3665A: 007

E13-09198

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- No dilution performed for sample 007.



9/25/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

PCB By 8082

Batch ID: 130923-09	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003

E13-09198

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- No dilution performed for samples 001,002,003.

Signature

9/24/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Pesticide By 8081A

Batch ID: 130923-11	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 003

E13-09198

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- #003 needed no dilution

Signature

9/26/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Pesticide By 8081A

Batch ID: 130923-16	**Matrix: Aqueous**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 005, 006, 007

E13-09198

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- #005, #006 needed 10x dilution due to potential matrix interference due to sample color
  #007 needed no dilution

Signature

9/26/2013
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Herbicide By 8151A

Batch ID: 130925-14	**Matrix: Aqueous**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.

E13-09198

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- No dilution was performed for samples 005,006.

Signature 9/30/2013 Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

Herbicide By 8151A

Batch ID: 130926-05	**Matrix: Soil**

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.

E13-09198

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- No dilution was performed for sample 003.

Signature 9/30/2013 Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

NJ-EPH-C40 By Method 10.08 Rev 3

Batch ID: 130919-06	Matrix: Soil

QC

- Calibration Curve met QC criteria.
- Surrogate Percent Recovery met QC criteria.
- Method Blank met QC criteria.
- LCS/LCSD Percent Recovery met QC criteria. n-Nonane was recovered between the 25-140% recovery range.
- RPD between LCS/LCSD met QC criteria.
- MS Percent Recovery met QC criteria. n-Nonane was recovered between the 25-140% recovery range.
- RPD between the Sample/Duplicate met QC criteria.

E13-09198

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.
- Samples were run without dilution.

9/24/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

METALS By 6020/7471A

Batch ID: S130919-01 (PG438)	**Matrix:** Soil

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E13-09198
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.
- 09198-003 was analyzed at a 10x dilution for Al. Sample concentration exceeded linear range.

DR 9/20/2013

Signature Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E13-09198

METALS By 6020/7470A

Batch ID: A130919-01 (PG439)	**Matrix:** Aqueous

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E13-09198
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.
- Sample(s) used for aqueous metals analyses contained varying levels of sediment. Precautions were taken to use an aqueous representative of the sample. However, our experience has demonstrated that samples of this nature are very difficult to duplicate because the metals numbers are basically tied into the level of sediment present in the original sample. Additionally, as the remainder of the sample is stored under acidic conditions, some of the metals may continue to leach out into the water making any reproduction of the original number impossible. The rough amount of sediment present in the samples is as follows: 09198-005: 2%; 09198-006: 3%;
- All samples were analyzed as a straight run and no further dilutions were required.

9/23/2013

Signature Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09198

Lab ID:	09198-005			09198-006			09198-007			09198-008		
Client ID:	AOC-7-2			AOC-7-4			EX. WELL			FB		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	9/18/13			9/18/13			9/18/13			9/18/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Chloroform	ND		0.280	ND		0.280	1.22		0.280	~		~
TOTAL VO's:	ND			ND			1.22			~		~
TOTAL TIC's:	ND			ND			ND			~		~
TOTAL VO's & TIC's:	ND			ND			1.22			~		~
Semivolatiles - BN (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Acenaphthene	ND		0.350	0.984	J	0.350	~		~	~		~
Fluorene	ND		0.310	0.415	J	0.310	~		~	~		~
Anthracene	0.565	J	0.350	0.476	J	0.350	~		~	~		~
Fluoranthene	0.744	J	0.290	0.507	J	0.290	~		~	~		~
Pyrene	6.46		0.380	3.29		0.380	~		~	~		~
Benzo[a]anthracene	0.540		0.100	0.258		0.100	~		~	~		~
Chrysene	1.72		0.380	0.711	J	0.380	~		~	~		~
Benzo[b]fluoranthene	0.617		0.100	0.239		0.100	~		~	~		~
Benzo[k]fluoranthene	0.111		0.100	ND		0.100	~		~	~		~
Benzo[a]pyrene	0.752		0.100	0.265		0.100	~		~	~		~
Indeno[1,2,3-cd]pyrene	0.468		0.100	0.184		0.100	~		~	~		~
Dibenz[a,h]anthracene	0.428		0.100	0.189		0.100	~		~	~		~
Benzo[g,h,i]perylene	1.56		0.460	0.586	J	0.460	~		~	~		~
TOTAL BN'S:	14.0	J		8.10	J		~		~	~		~
TOTAL TIC's:	5.40			ND			~		~	~		~
TOTAL BN'S & TIC's:	19.4	J		8.10	J		~		~	~		~
Semivolatiles - BNA (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
TOTAL BNA'S:	~		~	~		~	ND			~		~
TOTAL TIC's:	~		~	~		~	ND			~		~
TOTAL BNA'S & TIC's:	~		~	~		~	ND			~		~
PCB's (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Aroclor-1016	~		~	~		~	ND		0.020	~		~
Aroclor-1221	~		~	~		~	ND		0.020	~		~
Aroclor-1232	~		~	~		~	ND		0.020	~		~
Aroclor-1242	~		~	~		~	ND		0.020	~		~
Aroclor-1248	~		~	~		~	ND		0.020	~		~
Aroclor-1254	~		~	~		~	ND		0.020	~		~
Aroclor-1260	~		~	~		~	ND		0.020	~		~
Aroclor-1262	~		~	~		~	ND		0.020	~		~
Aroclor-1268	~		~	~		~	ND		0.020	~		~
PCBs	~		~	~		~	ND			~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09198

Lab ID:	09198-005			09198-006			09198-007			09198-008		
Client ID:	AOC-7-2			AOC-7-4			EX. WELL			FB		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	9/18/13			9/18/13			9/18/13			9/18/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
alpha-BHC	ND		0.050	ND		0.050	ND		0.005	~		~
beta-BHC	ND		0.050	ND		0.050	ND		0.005	~		~
gamma-BHC (Lindane)	ND		0.050	ND		0.050	ND		0.005	~		~
delta-BHC	ND		0.050	ND		0.050	ND		0.005	~		~
Heptachlor	ND		0.050	ND		0.050	ND		0.005	~		~
Aldrin	ND		0.050	ND		0.050	ND		0.005	~		~
Heptachlor epoxide	ND		0.050	ND		0.050	ND		0.005	~		~
Endosulfan I	ND		0.050	ND		0.050	ND		0.005	~		~
4,4'-DDE	ND		0.050	ND		0.050	ND		0.005	~		~
Dieldrin	ND		0.050	ND		0.050	ND		0.005	~		~
Endrin	ND		0.050	ND		0.050	ND		0.005	~		~
Endosulfan II	ND		0.050	ND		0.050	ND		0.005	~		~
4,4'-DDD	ND		0.050	ND		0.050	ND		0.005	~		~
Endrin aldehyde	ND		0.050	ND		0.050	ND		0.005	~		~
Endosulfan sulfate	ND		0.050	ND		0.050	ND		0.005	~		~
4,4'-DDT	ND		0.050	ND		0.050	ND		0.005	~		~
Endrin ketone	ND		0.050	ND		0.050	ND		0.005	~		~
Methoxychlor	ND		0.050	ND		0.050	ND		0.005	~		~
alpha-Chlordane	ND		0.050	ND		0.050	ND		0.005	~		~
gamma-Chlordane	ND		0.050	ND		0.050	ND		0.005	~		~
Toxaphene	ND		0.600	ND		0.600	ND		0.060	~		~
Endosulfan (I and II)	ND		0.050	ND		0.050	ND		0.005	~		~
Chlordane (alpha and gamma)	ND		0.050	ND		0.050	ND		0.005	~		~
Herbicides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Dalapon	ND		0.120	ND		0.260	~		~	~		~
Dicamba	ND		0.120	ND		0.260	~		~	~		~
2,4-D	ND		0.120	ND		0.260	~		~	~		~
2,4,5-TP (Silvex)	ND		0.120	ND		0.260	~		~	~		~
2,4,5-T	ND		0.120	ND		0.260	~		~	~		~
2,4-DB	ND		0.120	ND		0.260	~		~	~		~
Dinoseb	ND		0.120	ND		0.260	~		~	~		~
GC-Fingerprint (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
GC-Fingerprint	~		~	☼			~		~	~		~
Metals (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Aluminum	9170		20.0	6510		20.0	203		20.0	~		~
Antimony	ND		1.00	ND		1.00	ND		1.00	~		~
Arsenic	4.40		1.00	4.42		1.00	ND		1.00	~		~
Barium	1300		10.0	1310		10.0	267		10.0	~		~
Beryllium	2.37		1.00	2.14		1.00	ND		1.00	~		~
Cadmium	1.01	J	0.500	1.66	J	0.500	ND		0.500	~		~
Calcium	103000		100	107000		100	63100		100	~		~

☼=See Attached Pages
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
~ = Sample not analyzed for

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09198

Lab ID:	09198-005			09198-006			09198-007			09198-008		
Client ID:	AOC-7-2			AOC-7-4			EX. WELL			FB		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	9/18/13			9/18/13			9/18/13			9/18/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Chromium	27.3		2.00	16.2		2.00	ND		2.00	~		~
Cobalt	24.8		2.00	24.9		2.00	ND		2.00	~		~
Copper	21.2		4.00	33.1		4.00	ND		4.00	~		~
Iron	14400		50.0	11900		50.0	187		50.0	~		~
Lead	102		0.500	111		0.500	ND		0.500	~		~
Magnesium	25100		50.0	24200		50.0	32400		50.0	~		~
Manganese	1770		2.00	1750		2.00	51.2		2.00	~		~
Mercury	ND		0.300	ND		0.300	ND		0.300	~		~
Nickel	136		1.00	105		1.00	ND		1.00	~		~
Potassium	5970		50.0	8470		50.0	1920		50.0	~		~
Selenium	ND		4.00	ND		4.00	ND		4.00	~		~
Silver	ND		0.500	ND		0.500	ND		0.500	~		~
Sodium	234000		100	264000		100	87300		100	~		~
Thallium	ND		0.500	ND		0.500	ND		0.500	~		~
Vanadium	50.4		2.00	44.7		2.00	3.77		2.00	~		~
Zinc	579		4.00	782		4.00	ND		4.00	~		~
General Analytical (Units)												
Cyanide, Total(ug/L)	~		~	~		~	ND		5.00	~		~

Lab ID:	09198-009		
Client ID:	TB		
Matrix:	Aqueous		
Sampled Date	9/18/13		
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)	*(ug/L-ppb)*		
TOTAL VO's:	ND		
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	ND		

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09198

Lab ID:	09198-001			09198-002			09198-003			09198-004		
Client ID:	AOC-9-1			AOC-9-2			AOC-12-3			AOC-12-4		
Depth:	0/0.5			0/0.5			1.5/2			2/2.5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	9/18/13			9/18/13			9/18/13			9/18/13		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Carbon disulfide	~		~	~		~	0.00152		0.00036	~		~
TOTAL VO's:	~		~	~		~	ND			~		~
TOTAL TIC's:	~		~	~		~	ND			~		~
TOTAL VO's & TIC's:	~		~	~		~	ND			~		~
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TOTAL BN'S:	~		~	~		~	ND			~		~
TOTAL TIC's:	~		~	~		~	ND			~		~
TOTAL BN'S & TIC's:	~		~	~		~	ND			~		~
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	ND		0.019	ND		0.017	ND		0.018	~		~
Aroclor-1221	ND		0.019	ND		0.017	ND		0.018	~		~
Aroclor-1232	ND		0.019	ND		0.017	ND		0.018	~		~
Aroclor-1242	ND		0.019	ND		0.017	ND		0.018	~		~
Aroclor-1248	ND		0.019	ND		0.017	ND		0.018	~		~
Aroclor-1254	ND		0.019	ND		0.017	ND		0.018	~		~
Aroclor-1260	ND		0.019	ND		0.017	ND		0.018	~		~
Aroclor-1262	ND		0.019	ND		0.017	ND		0.018	~		~
Aroclor-1268	ND		0.019	ND		0.017	ND		0.018	~		~
PCBs	ND			ND			ND			~		~
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	~		~	~		~	ND		0.000207	~		~
beta-BHC	~		~	~		~	ND		0.000207	~		~
gamma-BHC (Lindane)	~		~	~		~	ND		0.000207	~		~
delta-BHC	~		~	~		~	ND		0.000207	~		~
Heptachlor	~		~	~		~	ND		0.000207	~		~
Aldrin	~		~	~		~	ND		0.000207	~		~
Heptachlor epoxide	~		~	~		~	ND		0.000207	~		~
Endosulfan I	~		~	~		~	ND		0.000207	~		~
4,4'-DDE	~		~	~		~	ND		0.000207	~		~
Dieldrin	~		~	~		~	ND		0.000207	~		~
Endrin	~		~	~		~	ND		0.000207	~		~
Endosulfan II	~		~	~		~	ND		0.000207	~		~
4,4'-DDD	~		~	~		~	ND		0.000207	~		~
Endrin aldehyde	~		~	~		~	ND		0.000207	~		~
Endosulfan sulfate	~		~	~		~	ND		0.000207	~		~
4,4'-DDT	~		~	~		~	ND		0.000207	~		~
Endrin ketone	~		~	~		~	ND		0.000207	~		~
Methoxychlor	~		~	~		~	ND		0.000207	~		~
alpha-Chlordane	~		~	~		~	ND		0.000207	~		~
gamma-Chlordane	~		~	~		~	ND		0.000207	~		~
Toxaphene	~		~	~		~	ND		0.00248	~		~
Endosulfan (I and II)	~		~	~		~	ND		0.000207	~		~
Chlordane (alpha and gamma)	~		~	~		~	ND		0.000207	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE. - 208322
Lab Case No.: E13-09198

	Lab ID:	09198-001			09198-002			09198-003			09198-004		
	Client ID:	AOC-9-1			AOC-9-2			AOC-12-3			AOC-12-4		
	Depth:	0/0.5			0/0.5			1.5/2			2/2.5		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	9/18/13			9/18/13			9/18/13			9/18/13		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Herbicides (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dalapon		~		~	~		~	ND		0.00822	~		~
Dicamba		~		~	~		~	ND		0.00822	~		~
2,4-D		~		~	~		~	ND		0.00822	~		~
2,4,5-TP (Silvex)		~		~	~		~	ND		0.00822	~		~
2,4,5-T		~		~	~		~	ND		0.00822	~		~
2,4-DB		~		~	~		~	ND		0.00822	~		~
Dinoseb		~		~	~		~	ND		0.00822	~		~
NJ-EPH-C40 (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C40		~		~	~		~	30.6	J	11.2	32.9	J	11.2
Metals (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum		~		~	~		~	32500		67.9	~		~
Antimony		~		~	~		~	ND		0.340	~		~
Arsenic		~		~	~		~	3.39		0.340	~		~
Barium		~		~	~		~	167		3.40	~		~
Beryllium		~		~	~		~	1.74		0.272	~		~
Cadmium		~		~	~		~	ND		0.170	~		~
Calcium		~		~	~		~	2020		34.0	~		~
Chromium		~		~	~		~	29.6		0.679	~		~
Cobalt		~		~	~		~	19.9		0.679	~		~
Copper		~		~	~		~	15.5		0.679	~		~
Iron		~		~	~		~	26700		17.0	~		~
Lead		~		~	~		~	21.8		0.170	~		~
Magnesium		~		~	~		~	4290		17.0	~		~
Manganese		~		~	~		~	465		0.340	~		~
Mercury		~		~	~		~	0.062		0.00721	~		~
Nickel		~		~	~		~	31.2		0.679	~		~
Potassium		~		~	~		~	2240		17.0	~		~
Selenium		~		~	~		~	ND		1.36	~		~
Silver		~		~	~		~	ND		0.170	~		~
Sodium		~		~	~		~	456		34.0	~		~
Thallium		~		~	~		~	0.201	J	0.170	~		~
Vanadium		~		~	~		~	42.5		0.679	~		~
Zinc		~		~	~		~	61.0		2.72	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-003
Client ID: AOC-12-3/1.5-2
Date Received: 09/18/2013
Date Analyzed: 09/24/2013
Data file: F7808.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00116	0.00065
Chloromethane	ND		0.00116	0.000336
Vinyl chloride	ND		0.00116	0.000452
Bromomethane	ND		0.00116	0.000557
Chloroethane	ND		0.00116	0.000429
Trichlorofluoromethane	ND		0.00116	0.000348
1,1-Dichloroethene	ND		0.00116	0.000476
Acetone	ND		0.0058	0.000638
Carbon disulfide	0.00152		0.00116	0.00036
Methylene chloride	ND		0.00232	0.0023
trans-1,2-Dichloroethene	ND		0.00116	0.000394
Methyl tert-butyl ether (MTBE)	ND		0.00116	0.00029
1,1-Dichloroethane	ND		0.00116	0.000348
cis-1,2-Dichloroethene	ND		0.00116	0.000325
2-Butanone (MEK)	ND		0.00116	0.000336
Bromochloromethane	ND		0.00116	0.00029
Chloroform	ND		0.00116	0.000313
1,1,1-Trichloroethane	ND		0.00116	0.000302
Carbon tetrachloride	ND		0.00116	0.00029
1,2-Dichloroethane (EDC)	ND		0.00116	0.000255
Benzene	ND		0.00116	0.000313
Trichloroethene	ND		0.00116	0.000394
1,2-Dichloropropane	ND		0.00116	0.000302
1,4-Dioxane	ND		0.232	0.013
Bromodichloromethane	ND		0.00116	0.000244
cis-1,3-Dichloropropene	ND		0.00116	0.000244
4-Methyl-2-pentanone (MIBK)	ND		0.00116	0.000244

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-003
Client ID: AOC-12-3/1.5-2
Date Received: 09/18/2013
Date Analyzed: 09/24/2013
Data file: F7808.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00116	0.00029
trans-1,3-Dichloropropene	ND		0.00116	0.000255
1,1,2-Trichloroethane	ND		0.00116	0.000244
Tetrachloroethene	ND		0.00116	0.00029
2-Hexanone	ND		0.00116	0.000313
Dibromochloromethane	ND		0.00116	0.000244
1,2-Dibromoethane (EDB)	ND		0.00116	0.000232
Chlorobenzene	ND		0.00116	0.000325
Ethylbenzene	ND		0.00116	0.000325
Total Xylenes	ND		0.00232	0.00093
Styrene	ND		0.00116	0.000255
Bromoform	ND		0.00116	0.000278
Isopropylbenzene	ND		0.00232	0.000336
1,1,2,2-Tetrachloroethane	ND		0.00116	0.000267
1,3-Dichlorobenzene	ND		0.00116	0.000278
1,4-Dichlorobenzene	ND		0.00116	0.000232
1,2-Dichlorobenzene	ND		0.00116	0.000325
1,2-Dibromo-3-chloropropane	ND		0.00116	0.000232
1,2,4-Trichlorobenzene	ND		0.00116	0.000302
1,2,3-Trichlorobenzene	ND		0.00116	0.000371
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00116	0.000429
Methyl acetate	ND		0.00116	0.000255
Cyclohexane	ND		0.0058	0.000452
Methylcyclohexane	ND		0.00116	0.000418
1,3-Dichloropropene (cis- and trans-)	ND		0.00116	0.000255

Total Target Compounds (52): 0.00152

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09198-003
Client ID: AOC-12-3/1.5-2
Date Received: 09/18/2013
Date Analyzed: 09/24/2013
Date File: F7808.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-005
Client ID: AOC-7-2
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8925.D
Data file: P5235.D*

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.390
Chloromethane	ND		1.00	0.270
Vinyl chloride	ND		1.00	0.230
Bromomethane	ND		1.00	0.440
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.900
1,1-Dichloroethene	ND		1.00	0.460
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.320
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.300
Methyl tert-butyl ether (MTBE)	ND		1.00	0.190
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.310
2-Butanone (MEK)	ND		1.00	0.370
Bromochloromethane	ND		1.00	0.410
Chloroform	ND		1.00	0.280
1,1,1-Trichloroethane	ND		1.00	0.340
Carbon tetrachloride	ND		1.00	0.330
1,2-Dichloroethane (EDC)	ND		1.00	0.240
Benzene	ND		1.00	0.220
Trichloroethene	ND		1.00	0.300
1,2-Dichloropropane	ND		1.00	0.230
Bromodichloromethane	ND		1.00	0.240
cis-1,3-Dichloropropene	ND		1.00	0.200
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.370

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-005
Client ID: AOC-7-2
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8925.D
Data file: P5235.D*

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.210
trans-1,3-Dichloropropene	ND		1.00	0.240
1,1,2-Trichloroethane	ND		1.00	0.250
Tetrachloroethene	ND		1.00	0.380
2-Hexanone	ND		1.00	0.360
Dibromochloromethane	ND		1.00	0.270
1,2-Dibromoethane (EDB)*	ND		0.014	0.00855
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.300
Total Xylenes	ND		2.00	0.720
Styrene	ND		1.00	0.320
Bromoform	ND		1.00	0.270
Isopropylbenzene	ND		1.00	0.350
1,1,2,2-Tetrachloroethane	ND		1.00	0.300
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.330
1,2-Dichlorobenzene	ND		1.00	0.260
1,2-Dibromo-3-chloropropane*	ND		0.014	0.00855
1,2,4-Trichlorobenzene	ND		1.00	0.370
1,2,3-Trichlorobenzene	ND		1.00	0.220
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.370
Methyl acetate	ND		1.00	0.250
Cyclohexane	ND		5.00	0.300
Methylcyclohexane	ND		1.00	0.320
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.240

Total Target Compounds (51): 0

* --- Results reported from SW-846 Method 8011 to meet Ground Water Quality Standards
D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09198-005
Client ID: AOC-7-2
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8925.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-006
Client ID: AOC-7-4
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8926.D
Data file: P5236.D*

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.390
Chloromethane	ND		1.00	0.270
Vinyl chloride	ND		1.00	0.230
Bromomethane	ND		1.00	0.440
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.900
1,1-Dichloroethene	ND		1.00	0.460
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.320
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.300
Methyl tert-butyl ether (MTBE)	ND		1.00	0.190
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.310
2-Butanone (MEK)	ND		1.00	0.370
Bromochloromethane	ND		1.00	0.410
Chloroform	ND		1.00	0.280
1,1,1-Trichloroethane	ND		1.00	0.340
Carbon tetrachloride	ND		1.00	0.330
1,2-Dichloroethane (EDC)	ND		1.00	0.240
Benzene	ND		1.00	0.220
Trichloroethene	ND		1.00	0.300
1,2-Dichloropropane	ND		1.00	0.230
Bromodichloromethane	ND		1.00	0.240
cis-1,3-Dichloropropene	ND		1.00	0.200
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.370

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-006
Client ID: AOC-7-4
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8926.D
Data file: P5236.D*

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.210
trans-1,3-Dichloropropene	ND		1.00	0.240
1,1,2-Trichloroethane	ND		1.00	0.250
Tetrachloroethene	ND		1.00	0.380
2-Hexanone	ND		1.00	0.360
Dibromochloromethane	ND		1.00	0.270
1,2-Dibromoethane (EDB)*	ND		0.014	0.00855
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.300
Total Xylenes	ND		2.00	0.720
Styrene	ND		1.00	0.320
Bromoform	ND		1.00	0.270
Isopropylbenzene	ND		1.00	0.350
1,1,2,2-Tetrachloroethane	ND		1.00	0.300
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.330
1,2-Dichlorobenzene	ND		1.00	0.260
1,2-Dibromo-3-chloropropane*	ND		0.014	0.00855
1,2,4-Trichlorobenzene	ND		1.00	0.370
1,2,3-Trichlorobenzene	ND		1.00	0.220
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.370
Methyl acetate	ND		1.00	0.250
Cyclohexane	ND		5.00	0.300
Methylcyclohexane	ND		1.00	0.320
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.240

Total Target Compounds (51): 0

* --- Results reported from SW-846 Method 8011 to meet Ground Water Quality Standards
D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09198-006
Client ID: AOC-7-4
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8926.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-007
Client ID: EX._WELL
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8927.D
Data file: P5237.D*

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.390
Chloromethane	ND		1.00	0.270
Vinyl chloride	ND		1.00	0.230
Bromomethane	ND		1.00	0.440
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.900
1,1-Dichloroethene	ND		1.00	0.460
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.320
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.300
Methyl tert-butyl ether (MTBE)	ND		1.00	0.190
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.310
2-Butanone (MEK)	ND		1.00	0.370
Bromochloromethane	ND		1.00	0.410
Chloroform	1.22		1.00	0.280
1,1,1-Trichloroethane	ND		1.00	0.340
Carbon tetrachloride	ND		1.00	0.330
1,2-Dichloroethane (EDC)	ND		1.00	0.240
Benzene	ND		1.00	0.220
Trichloroethene	ND		1.00	0.300
1,2-Dichloropropane	ND		1.00	0.230
Bromodichloromethane	ND		1.00	0.240
cis-1,3-Dichloropropene	ND		1.00	0.200
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.370

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-007
Client ID: EX._WELL
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8927.D
Data file: P5237.D*

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.210
trans-1,3-Dichloropropene	ND		1.00	0.240
1,1,2-Trichloroethane	ND		1.00	0.250
Tetrachloroethene	ND		1.00	0.380
2-Hexanone	ND		1.00	0.360
Dibromochloromethane	ND		1.00	0.270
1,2-Dibromoethane (EDB)*	ND		0.014	0.00855
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.300
Total Xylenes	ND		2.00	0.720
Styrene	ND		1.00	0.320
Bromoform	ND		1.00	0.270
Isopropylbenzene	ND		1.00	0.350
1,1,2,2-Tetrachloroethane	ND		1.00	0.300
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.330
1,2-Dichlorobenzene	ND		1.00	0.260
1,2-Dibromo-3-chloropropane*	ND		0.014	0.00855
1,2,4-Trichlorobenzene	ND		1.00	0.370
1,2,3-Trichlorobenzene	ND		1.00	0.220
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.370
Methyl acetate	ND		1.00	0.250
Cyclohexane	ND		5.00	0.300
Methylcyclohexane	ND		1.00	0.320
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.240

Total Target Compounds (51): 1.22

* --- Results reported from SW-846 Method 8011 to meet Ground Water Quality Standards
D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09198-007
Client ID: EX._WELL
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Date File: E8927.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-009
Client ID: TB
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8928.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.390
Chloromethane	ND		1.00	0.270
Vinyl chloride	ND		1.00	0.230
Bromomethane	ND		1.00	0.440
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.900
1,1-Dichloroethene	ND		1.00	0.460
Acetone	ND		2.00	1.33
Carbon disulfide	ND		1.00	0.320
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.300
Methyl tert-butyl ether (MTBE)	ND		1.00	0.190
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.310
2-Butanone (MEK)	ND		1.00	0.370
Bromochloromethane	ND		1.00	0.410
Chloroform	ND		1.00	0.280
1,1,1-Trichloroethane	ND		1.00	0.340
Carbon tetrachloride	ND		1.00	0.330
1,2-Dichloroethane (EDC)	ND		1.00	0.240
Benzene	ND		1.00	0.220
Trichloroethene	ND		1.00	0.300
1,2-Dichloropropane	ND		1.00	0.230
1,4-Dioxane	ND		200	37.0
Bromodichloromethane	ND		1.00	0.240
cis-1,3-Dichloropropene	ND		1.00	0.200
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.370

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 09198-009
Client ID: TB
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8928.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.210
trans-1,3-Dichloropropene	ND		1.00	0.240
1,1,2-Trichloroethane	ND		1.00	0.250
Tetrachloroethene	ND		1.00	0.380
2-Hexanone	ND		1.00	0.360
Dibromochloromethane	ND		1.00	0.270
1,2-Dibromoethane (EDB)	ND		1.00	0.270
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.300
Total Xylenes	ND		2.00	0.720
Styrene	ND		1.00	0.320
Bromoform	ND		1.00	0.270
Isopropylbenzene	ND		1.00	0.350
1,1,2,2-Tetrachloroethane	ND		1.00	0.300
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.330
1,2-Dichlorobenzene	ND		1.00	0.260
1,2-Dibromo-3-chloropropane	ND		1.00	0.300
1,2,4-Trichlorobenzene	ND		1.00	0.370
1,2,3-Trichlorobenzene	ND		1.00	0.220
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.370
Methyl acetate	ND		1.00	0.250
Cyclohexane	ND		5.00	0.300
Methylcyclohexane	ND		1.00	0.320
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.240

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 09198-009
Client ID: TB
Date Received: 09/18/2013
Date Analyzed: 09/20/2013
Data file: E8928.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09198-003
Client ID: AOC-12-3
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
Data file: C0107.D

GC/MS Column: DB-5
Sample wt/vol: 15.86g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.039	0.024
Bis(2-chloroethyl) ether	ND		0.039	0.028
Bis(2-chloroisopropyl) ether	ND		0.039	0.024
N-Nitrosodi-n-propylamine	ND		0.039	0.026
Acetophenone	ND		0.039	0.024
Hexachloroethane	ND		0.039	0.024
Nitrobenzene	ND		0.039	0.039
Isophorone	ND		0.039	0.026
Bis(2-chloroethoxy) methane	ND		0.039	0.033
Naphthalene	ND		0.039	0.024
4-Chloroaniline	ND		0.039	0.037
Hexachlorobutadiene	ND		0.039	0.024
Caprolactam	ND		0.039	0.024
2-Methylnaphthalene	ND		0.039	0.033
Hexachlorocyclopentadiene	ND		0.039	0.026
1,1'-Biphenyl	ND		0.039	0.024
2-Chloronaphthalene	ND		0.039	0.037
2-Nitroaniline	ND		0.039	0.024
Dimethyl phthalate	ND		0.039	0.024

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09198-003
Client ID: AOC-12-3
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
Data file: C0107.D

GC/MS Column: DB-5
Sample wt/vol: 15.86g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.039	0.024
Acenaphthylene	ND		0.039	0.028
3-Nitroaniline	ND		0.039	0.033
Acenaphthene	ND		0.039	0.032
2,4-Dinitrotoluene	ND		0.039	0.026
Dibenzofuran	ND		0.039	0.024
Diethyl phthalate	ND		0.039	0.029
Fluorene	ND		0.039	0.024
4-Chlorophenyl phenyl ether	ND		0.039	0.024
4-Nitroaniline	ND		0.039	0.032
1,2,4,5-Tetrachlorobenzene	ND		0.039	0.024
N-Nitrosodiphenylamine	ND		0.039	0.024
4-Bromophenyl phenyl ether	ND		0.039	0.024
Hexachlorobenzene	ND		0.039	0.032
Atrazine	ND		0.039	0.028
Phenanthrene	ND		0.039	0.026
Anthracene	ND		0.039	0.039
Carbazole	ND		0.039	0.024
Di-n-butyl phthalate	ND		0.039	0.035
Fluoranthene	ND		0.039	0.024
Pyrene	ND		0.039	0.029
Butyl benzyl phthalate	ND		0.039	0.025
3,3'-Dichlorobenzidine	ND		0.039	0.028
Benzo[a]anthracene	ND		0.039	0.038
Chrysene	ND		0.039	0.027
Bis(2-ethylhexyl) phthalate	ND		0.039	0.024
Di-n-octyl phthalate	ND		0.039	0.035
Benzo[b]fluoranthene	ND		0.039	0.024
Benzo[k]fluoranthene	ND		0.039	0.037
Benzo[a]pyrene	ND		0.039	0.024
Indeno[1,2,3-cd]pyrene	ND		0.039	0.026
Dibenz[a,h]anthracene	ND		0.039	0.029
Benzo[g,h,i]perylene	ND		0.039	0.035
Dinitrotoluene (2,4- and 2,6-)	ND		0.039	0.026

Total Target Compounds (53): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09198-003
Client ID: AOC-12-3
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
Date File: C0107.D

GC/MS Column: DB-5
Sample wt/vol: 15.86g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09198-005
Client ID: AOC-7-2
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Data file: B2162.D
SIM Data file: B2146.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.180
Bis(2-chloroethyl) ether	ND		1.00	0.530
Bis(2-chloroisopropyl) ether	ND		1.00	0.620
N-Nitrosodi-n-propylamine	ND		1.00	0.400
Acetophenone	ND		1.00	0.500
Hexachloroethane	ND		1.00	0.390
Nitrobenzene	ND		1.00	0.320
Isophorone	ND		1.00	0.350
Bis(2-chloroethoxy) methane	ND		1.00	0.690
Naphthalene	ND		1.00	0.340
4-Chloroaniline	ND		1.00	0.270
Hexachlorobutadiene	ND		1.00	0.330
Caprolactam	ND		1.00	0.770
2-Methylnaphthalene	ND		1.00	0.340
Hexachlorocyclopentadiene	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.350
2-Chloronaphthalene	ND		1.00	0.320
2-Nitroaniline	ND		1.00	0.230
Dimethyl phthalate	ND		1.00	0.370

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09198-005
Client ID: AOC-7-2
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Data file: B2162.D
SIM Data file: B2146.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.170
Acenaphthylene	ND		1.00	0.290
3-Nitroaniline	ND		1.00	0.170
Acenaphthene	ND		1.00	0.350
2,4-Dinitrotoluene	ND		1.00	0.160
Dibenzofuran	ND		1.00	0.360
Diethyl phthalate	ND		1.00	0.400
Fluorene	ND		1.00	0.310
4-Chlorophenyl phenyl ether	ND		1.00	0.390
4-Nitroaniline	ND		1.00	0.540
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.330
N-Nitrosodiphenylamine	ND		1.00	0.370
4-Bromophenyl phenyl ether	ND		1.00	0.380
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.420
Phenanthrene	ND		1.00	0.380
Anthracene	0.565	J	1.00	0.350
Carbazole	ND		1.00	0.310
Di-n-butyl phthalate	ND		1.00	0.380
Fluoranthene	0.744	J	1.00	0.290
Pyrene	6.46		1.00	0.380
Butyl benzyl phthalate	ND		1.00	0.380
3,3'-Dichlorobenzidine	ND		1.00	0.380
Benzo[a]anthracene *	0.540		0.100	0.100
Chrysene	1.72		1.00	0.380
Bis(2-ethylhexyl) phthalate	ND		1.00	0.370
Di-n-octyl phthalate	ND		1.00	0.460
Benzo[b]fluoranthene *	0.617		0.100	0.100
Benzo[k]fluoranthene *	0.111		0.100	0.100
Benzo[a]pyrene *	0.752		0.100	0.100
Indeno[1,2,3-cd]pyrene *	0.468		0.100	0.100
Dibenz[a,h]anthracene *	0.428		0.100	0.100
Benzo[g,h,i]perylene	1.56		1.00	0.460
1,4-Dioxane	ND		1.00	0.430
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.170

* - RL & MDL from SIM run

Total Target Compounds (54): 14.0 J

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09198-005
Client ID: AOC-7-2
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Date File: B2162.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown PAH	5.40	7.42

Total TICs = 5.40

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09198-006
Client ID: AOC-7-4
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Data file: B2163.D
SIM Data file: B2147.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.180
Bis(2-chloroethyl) ether	ND		1.00	0.530
Bis(2-chloroisopropyl) ether	ND		1.00	0.620
N-Nitrosodi-n-propylamine	ND		1.00	0.400
Acetophenone	ND		1.00	0.500
Hexachloroethane	ND		1.00	0.390
Nitrobenzene	ND		1.00	0.320
Isophorone	ND		1.00	0.350
Bis(2-chloroethoxy) methane	ND		1.00	0.690
Naphthalene	ND		1.00	0.340
4-Chloroaniline	ND		1.00	0.270
Hexachlorobutadiene	ND		1.00	0.330
Caprolactam	ND		1.00	0.770
2-Methylnaphthalene	ND		1.00	0.340
Hexachlorocyclopentadiene	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.350
2-Chloronaphthalene	ND		1.00	0.320
2-Nitroaniline	ND		1.00	0.230
Dimethyl phthalate	ND		1.00	0.370

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09198-006
Client ID: AOC-7-4
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Data file: B2163.D
SIM Data file: B2147.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.170
Acenaphthylene	ND		1.00	0.290
3-Nitroaniline	ND		1.00	0.170
Acenaphthene	0.984	J	1.00	0.350
2,4-Dinitrotoluene	ND		1.00	0.160
Dibenzofuran	ND		1.00	0.360
Diethyl phthalate	ND		1.00	0.400
Fluorene	0.415	J	1.00	0.310
4-Chlorophenyl phenyl ether	ND		1.00	0.390
4-Nitroaniline	ND		1.00	0.540
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.330
N-Nitrosodiphenylamine	ND		1.00	0.370
4-Bromophenyl phenyl ether	ND		1.00	0.380
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.420
Phenanthrene	ND		1.00	0.380
Anthracene	0.476	J	1.00	0.350
Carbazole	ND		1.00	0.310
Di-n-butyl phthalate	ND		1.00	0.380
Fluoranthene	0.507	J	1.00	0.290
Pyrene	3.29		1.00	0.380
Butyl benzyl phthalate	ND		1.00	0.380
3,3'-Dichlorobenzidine	ND		1.00	0.380
Benzo[a]anthracene *	0.258		0.100	0.100
Chrysene	0.711	J	1.00	0.380
Bis(2-ethylhexyl) phthalate	ND		1.00	0.370
Di-n-octyl phthalate	ND		1.00	0.460
Benzo[b]fluoranthene *	0.239		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	0.265		0.100	0.100
Indeno[1,2,3-cd]pyrene *	0.184		0.100	0.100
Dibenz[a,h]anthracene *	0.189		0.100	0.100
Benzo[g,h,i]perylene	0.586	J	1.00	0.460
1,4-Dioxane	ND		1.00	0.430
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.170
Total Target Compounds (54):	8.10	J		

* - RL & MDL from SIM run

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09198-006
Client ID: AOC-7-4
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Date File: B2163.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09198-007
Client ID: EX._WELL
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Data file: B2164.D
SIM Data file: B2148.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.180
Phenol	ND		1.00	0.400
Bis(2-chloroethyl) ether	ND		1.00	0.530
2-Chlorophenol	ND		1.00	0.310
2-Methylphenol	ND		1.00	0.640
Bis(2-chloroisopropyl) ether	ND		1.00	0.620
4-Methylphenol **	ND		1.00	0.380
N-Nitrosodi-n-propylamine	ND		1.00	0.400
Acetophenone	ND		1.00	0.500
Hexachloroethane	ND		1.00	0.390
Nitrobenzene	ND		1.00	0.320
Isophorone	ND		1.00	0.350
2-Nitrophenol	ND		1.00	0.220
2,4-Dimethylphenol	ND		1.00	0.350
Bis(2-chloroethoxy) methane	ND		1.00	0.690
2,4-Dichlorophenol	ND		1.00	0.610
Naphthalene	ND		1.00	0.340
4-Chloroaniline	ND		1.00	0.270
Hexachlorobutadiene	ND		1.00	0.330
Caprolactam	ND		1.00	0.770
4-Chloro-3-methylphenol	ND		1.00	0.290
2-Methylnaphthalene	ND		1.00	0.340
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.320
2,4,5-Trichlorophenol	ND		1.00	0.440
1,1'-Biphenyl	ND		1.00	0.350
2-Chloronaphthalene	ND		1.00	0.320
2-Nitroaniline	ND		1.00	0.230
Dimethyl phthalate	ND		1.00	0.370

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E13-09198-007
Client ID: EX._WELL
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Data file: B2164.D
SIM Data file: B2148.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.170
Acenaphthylene	ND		1.00	0.290
3-Nitroaniline	ND		1.00	0.170
Acenaphthene	ND		1.00	0.350
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.630
2,4-Dinitrotoluene	ND		1.00	0.160
Dibenzofuran	ND		1.00	0.360
Diethyl phthalate	ND		1.00	0.400
Fluorene	ND		1.00	0.310
4-Chlorophenyl phenyl ether	ND		1.00	0.390
4-Nitroaniline	ND		1.00	0.540
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.330
2,3,4,6-Tetrachlorophenol	ND		1.00	0.260
4,6-Dinitro-2-methylphenol	ND		1.00	0.240
N-Nitrosodiphenylamine	ND		1.00	0.370
4-Bromophenyl phenyl ether	ND		1.00	0.380
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.420
Pentachlorophenol *	ND		0.100	0.100
Phenanthrene	ND		1.00	0.380
Anthracene	ND		1.00	0.350
Carbazole	ND		1.00	0.310
Di-n-butyl phthalate	ND		1.00	0.380
Fluoranthene	ND		1.00	0.290
Pyrene	ND		1.00	0.380
Butyl benzyl phthalate	ND		1.00	0.380
3,3'-Dichlorobenzidine	ND		1.00	0.380
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.380
Bis(2-ethylhexyl) phthalate	ND		1.00	0.370
Di-n-octyl phthalate	ND		1.00	0.460
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.460
1,4-Dioxane	ND		1.00	0.430
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.170

Total Target Compounds (69): 0

* - RL & MDL from SIM run

** - represents the total of 3+4-Methylphenol

B --- Compound detected in Blank

C --- Common laboratory contamination

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E13-09198-007
Client ID: EX._WELL
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/24/2013
Date File: B2164.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09198-001
Client ID: AOC-9-1/0-
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/23/2013
Data file: R4339.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.12g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.2

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.048	0.019
Aroclor-1221	ND		0.048	0.019
Aroclor-1232	ND		0.048	0.019
Aroclor-1242	ND		0.048	0.019
Aroclor-1248	ND		0.048	0.019
Aroclor-1254	ND		0.048	0.019
Aroclor-1260	ND		0.048	0.019
Aroclor-1262	ND		0.048	0.019
Aroclor-1268	ND		0.048	0.019
PCBs	ND		0.048	0.019

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09198-002
Client ID: AOC-9-2/0-
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/23/2013
Data file: R4340.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.22g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 8.10

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.042	0.017
Aroclor-1221	ND		0.042	0.017
Aroclor-1232	ND		0.042	0.017
Aroclor-1242	ND		0.042	0.017
Aroclor-1248	ND		0.042	0.017
Aroclor-1254	ND		0.042	0.017
Aroclor-1260	ND		0.042	0.017
Aroclor-1262	ND		0.042	0.017
Aroclor-1268	ND		0.042	0.017
PCBs	ND		0.042	0.017

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09198-003
Client ID: AOC-12-3/1
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/23/2013
Data file: R4341.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.44g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.046	0.018
Aroclor-1221	ND		0.046	0.018
Aroclor-1232	ND		0.046	0.018
Aroclor-1242	ND		0.046	0.018
Aroclor-1248	ND		0.046	0.018
Aroclor-1254	ND		0.046	0.018
Aroclor-1260	ND		0.046	0.018
Aroclor-1262	ND		0.046	0.018
Aroclor-1268	ND		0.046	0.018
PCBs	ND		0.046	0.018

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 09198-007
Client ID: EX._WELL
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4387.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09198-003
Client ID: AOC-12-3/1
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4646.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.22g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000414	0.000207
beta-BHC	ND		0.000414	0.000207
gamma-BHC (Lindane)	ND		0.000414	0.000207
delta-BHC	ND		0.000414	0.000207
Heptachlor	ND		0.000414	0.000207
Aldrin	ND		0.000414	0.000207
Heptachlor epoxide	ND		0.000414	0.000207
Endosulfan I	ND		0.000414	0.000207
4,4'-DDE	ND		0.000414	0.000207
Dieldrin	ND		0.000414	0.000207
Endrin	ND		0.000414	0.000207
Endosulfan II	ND		0.000414	0.000207
4,4'-DDD	ND		0.000414	0.000207
Endrin aldehyde	ND		0.000414	0.000207
Endosulfan sulfate	ND		0.000414	0.000207
4,4'-DDT	ND		0.000414	0.000207
Endrin ketone	ND		0.000414	0.000207
Methoxychlor	ND		0.000414	0.000207
alpha-Chlordane	ND		0.000414	0.000207
gamma-Chlordane	ND		0.000414	0.000207
Toxaphene	ND		0.00518	0.00248
Endosulfan (I and II)	ND		0.000414	0.000207
Chlordane (alpha and gamma)	ND		0.000414	0.000207

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09198-005
Client ID: AOC-7-2
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: V4658.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 10
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.100	0.050
beta-BHC	ND		0.100	0.050
gamma-BHC (Lindane)	ND		0.100	0.050
delta-BHC	ND		0.100	0.050
Heptachlor	ND		0.100	0.050
Aldrin	ND		0.100	0.050
Heptachlor epoxide	ND		0.100	0.050
Endosulfan I	ND		0.100	0.050
4,4'-DDE	ND		0.100	0.050
Dieldrin	ND		0.100	0.050
Endrin	ND		0.100	0.050
Endosulfan II	ND		0.100	0.050
4,4'-DDD	ND		0.100	0.050
Endrin aldehyde	ND		0.100	0.050
Endosulfan sulfate	ND		0.100	0.050
4,4'-DDT	ND		0.100	0.050
Endrin ketone	ND		0.100	0.050
Methoxychlor	ND		0.100	0.050
alpha-Chlordane	ND		0.100	0.050
gamma-Chlordane	ND		0.100	0.050
Toxaphene	ND		1.25	0.600
Endosulfan (I and II)	ND		0.100	0.050
Chlordane (alpha and gamma)	ND		0.100	0.050

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09198-006
Client ID: AOC-7-4
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: V4659.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 10
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.100	0.050
beta-BHC	ND		0.100	0.050
gamma-BHC (Lindane)	ND		0.100	0.050
delta-BHC	ND		0.100	0.050
Heptachlor	ND		0.100	0.050
Aldrin	ND		0.100	0.050
Heptachlor epoxide	ND		0.100	0.050
Endosulfan I	ND		0.100	0.050
4,4'-DDE	ND		0.100	0.050
Dieldrin	ND		0.100	0.050
Endrin	ND		0.100	0.050
Endosulfan II	ND		0.100	0.050
4,4'-DDD	ND		0.100	0.050
Endrin aldehyde	ND		0.100	0.050
Endosulfan sulfate	ND		0.100	0.050
4,4'-DDT	ND		0.100	0.050
Endrin ketone	ND		0.100	0.050
Methoxychlor	ND		0.100	0.050
alpha-Chlordane	ND		0.100	0.050
gamma-Chlordane	ND		0.100	0.050
Toxaphene	ND		1.25	0.600
Endosulfan (I and II)	ND		0.100	0.050
Chlordane (alpha and gamma)	ND		0.100	0.050

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 09198-007
Client ID: EX._WELL
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: V4660.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09198-003
Client ID: AOC-12-3/1
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0325.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.18g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.021	0.00822
Dicamba	ND		0.021	0.00822
2,4-D	ND		0.021	0.00822
2,4,5-TP (Silvex)	ND		0.021	0.00822
2,4,5-T	ND		0.021	0.00822
2,4-DB	ND		0.021	0.00822
Dinoseb	ND		0.021	0.00822

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09198-005
Client ID: AOC-7-2
Date Received: 09/18/2013
Date Extracted: 09/25/2013
Date Analyzed: 09/27/2013
Data file: W0312.D

GC Column: DB-5/DB1701P
Sample wt/vol: 800.0ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.300	0.120
Dicamba	ND		0.300	0.120
2,4-D	ND		0.300	0.120
2,4,5-TP (Silvex)	ND		0.300	0.120
2,4,5-T	ND		0.300	0.120
2,4-DB	ND		0.300	0.120
Dinoseb	ND		0.300	0.120

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 09198-006
Client ID: AOC-7-4
Date Received: 09/18/2013
Date Extracted: 09/25/2013
Date Analyzed: 09/27/2013
Data file: W0313.D

GC Column: DB-5/DB1701P
Sample wt/vol: 400.0ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.650	0.260
Dicamba	ND		0.650	0.260
2,4-D	ND		0.650	0.260
2,4,5-TP (Silvex)	ND		0.650	0.260
2,4,5-T	ND		0.650	0.260
2,4-DB	ND		0.650	0.260
Dinoseb	ND		0.650	0.260

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES, LLC.

GC FINGERPRINT ANALYSIS

Client/Project: EWMA/50 Division Ave- 208322

Date Received: 9/18/13
Date Analyzed: 9/25/13

Lab ID	Client ID	RESULTS
09198-006	AOC-7-4	The results of this analysis shows the sample is a mixture of lubricating oils. Possibly hydralic and mineral oil based on our library standards. Slight variations can be attributed to weathering, aging or other environmental effects on the sample.

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09198-003
Client ID: AOC-12-3
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0820.D

GC Column: RTX-5
Sample wt/vol: 10.04g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.9

Compound	Concentration	Q	RL	MDL
C9-C40	30.6	J	44.8	11.2

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: 09198-004
Client ID: AOC-12-4
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0821.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.6

Compound	Concentration	Q	RL	MDL
C9-C40	32.9	J	44.8	11.2

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09198-003
Client ID: AOC-12-3
Date Collected: 09/18/13 12:15
Date Received: 09/18/13 16:25
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 19.9
Batch #: 438

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	32500		10	136	67.9	09/19/13 16:02	6020
Antimony	ND		1	1.36	0.340	09/19/13 14:45	6020
Arsenic	3.39		1	0.679	0.340	09/19/13 14:45	6020
Barium	167		1	13.6	3.40	09/19/13 14:45	6020
Beryllium	1.74		1	0.476	0.272	09/19/13 14:45	6020
Cadmium	ND		1	0.679	0.170	09/19/13 14:45	6020
Calcium	2020		1	67.9	34.0	09/19/13 14:45	6020
Chromium	29.6		1	2.72	0.679	09/19/13 14:45	6020
Cobalt	19.9		1	2.72	0.679	09/19/13 14:45	6020
Copper	15.5		1	2.72	0.679	09/19/13 14:45	6020
Iron	26700		1	34.0	17.0	09/19/13 14:45	6020
Lead	21.8		1	0.679	0.170	09/19/13 14:45	6020
Magnesium	4290		1	67.9	17.0	09/19/13 14:45	6020
Manganese	465		1	1.36	0.340	09/19/13 14:45	6020
Mercury	0.062		1	0.015	0.00721	09/19/13 15:53	7471A
Nickel	31.2		1	1.36	0.679	09/19/13 14:45	6020
Potassium	2240		1	67.9	17.0	09/19/13 14:45	6020
Selenium	ND		1	2.72	1.36	09/19/13 14:45	6020
Silver	ND		1	0.679	0.170	09/19/13 14:45	6020
Sodium	456		1	136	34.0	09/19/13 14:45	6020
Thallium	0.201	J	1	0.679	0.170	09/19/13 14:45	6020
Vanadium	42.5		1	2.72	0.679	09/19/13 14:45	6020
Zinc	61.0		1	2.72	2.72	09/19/13 14:45	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09198-005
Client ID: AOC-7-2
Date Collected: 09/18/13 11:48
Date Received: 09/18/13 16:25
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 439

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	9170		1	40.0	20.0	09/19/13 19:48	6020
Antimony	ND		1	4.00	1.00	09/19/13 19:48	6020
Arsenic	4.40		1	2.00	1.00	09/19/13 19:48	6020
Barium	1300		1	40.0	10.0	09/19/13 19:48	6020
Beryllium	2.37		1	2.00	1.00	09/19/13 19:48	6020
Cadmium	1.01	J	1	2.00	0.500	09/19/13 19:48	6020
Calcium	103000		1	200	100	09/19/13 19:48	6020
Chromium	27.3		1	8.00	2.00	09/19/13 19:48	6020
Cobalt	24.8		1	8.00	2.00	09/19/13 19:48	6020
Copper	21.2		1	8.00	4.00	09/19/13 19:48	6020
Iron	14400		1	100	50.0	09/19/13 19:48	6020
Lead	102		1	2.00	0.500	09/19/13 19:48	6020
Magnesium	25100		1	200	50.0	09/19/13 19:48	6020
Manganese	1770		1	4.00	2.00	09/19/13 19:48	6020
Mercury	ND		1	0.500	0.300	09/20/13 11:20	7470A
Nickel	136		1	4.00	1.00	09/19/13 19:48	6020
Potassium	5970		1	200	50.0	09/19/13 19:48	6020
Selenium	ND		1	8.00	4.00	09/19/13 19:48	6020
Silver	ND		1	2.00	0.500	09/19/13 19:48	6020
Sodium	234000		1	400	100	09/19/13 19:48	6020
Thallium	ND		1	2.00	0.500	09/19/13 19:48	6020
Vanadium	50.4		1	8.00	2.00	09/19/13 19:48	6020
Zinc	579		1	8.00	4.00	09/19/13 19:48	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09198-006
Client ID: AOC-7-4
Date Collected: 09/18/13 11:27
Date Received: 09/18/13 16:25
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 439

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	6510		1	40.0	20.0	09/19/13 19:52	6020
Antimony	ND		1	4.00	1.00	09/19/13 19:52	6020
Arsenic	4.42		1	2.00	1.00	09/19/13 19:52	6020
Barium	1310		1	40.0	10.0	09/19/13 19:52	6020
Beryllium	2.14		1	2.00	1.00	09/19/13 19:52	6020
Cadmium	1.66	J	1	2.00	0.500	09/19/13 19:52	6020
Calcium	107000		1	200	100	09/19/13 19:52	6020
Chromium	16.2		1	8.00	2.00	09/19/13 19:52	6020
Cobalt	24.9		1	8.00	2.00	09/19/13 19:52	6020
Copper	33.1		1	8.00	4.00	09/19/13 19:52	6020
Iron	11900		1	100	50.0	09/19/13 19:52	6020
Lead	111		1	2.00	0.500	09/19/13 19:52	6020
Magnesium	24200		1	200	50.0	09/19/13 19:52	6020
Manganese	1750		1	4.00	2.00	09/19/13 19:52	6020
Mercury	ND		1	0.500	0.300	09/20/13 11:27	7470A
Nickel	105		1	4.00	1.00	09/19/13 19:52	6020
Potassium	8470		1	200	50.0	09/19/13 19:52	6020
Selenium	ND		1	8.00	4.00	09/19/13 19:52	6020
Silver	ND		1	2.00	0.500	09/19/13 19:52	6020
Sodium	264000		1	400	100	09/19/13 19:52	6020
Thallium	ND		1	2.00	0.500	09/19/13 19:52	6020
Vanadium	44.7		1	8.00	2.00	09/19/13 19:52	6020
Zinc	782		1	8.00	4.00	09/19/13 19:52	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: EWMA/50 DIVISION AVE. - 208322

Lab ID: E13-09198-007
Client ID: EX. WELL
Date Collected: 09/18/13 13:56
Date Received: 09/18/13 16:25
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 439

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	203		1	40.0	20.0	09/19/13 20:05	6020
Antimony	ND		1	4.00	1.00	09/19/13 20:05	6020
Arsenic	ND		1	2.00	1.00	09/19/13 20:05	6020
Barium	267		1	40.0	10.0	09/19/13 20:05	6020
Beryllium	ND		1	2.00	1.00	09/19/13 20:05	6020
Cadmium	ND		1	2.00	0.500	09/19/13 20:05	6020
Calcium	63100		1	200	100	09/19/13 20:05	6020
Chromium	ND		1	8.00	2.00	09/19/13 20:05	6020
Cobalt	ND		1	8.00	2.00	09/19/13 20:05	6020
Copper	ND		1	8.00	4.00	09/19/13 20:05	6020
Iron	187		1	100	50.0	09/19/13 20:05	6020
Lead	ND		1	2.00	0.500	09/19/13 20:05	6020
Magnesium	32400		1	200	50.0	09/19/13 20:05	6020
Manganese	51.2		1	4.00	2.00	09/19/13 20:05	6020
Mercury	ND		1	0.500	0.300	09/20/13 11:29	7470A
Nickel	ND		1	4.00	1.00	09/19/13 20:05	6020
Potassium	1920		1	200	50.0	09/19/13 20:05	6020
Selenium	ND		1	8.00	4.00	09/19/13 20:05	6020
Silver	ND		1	2.00	0.500	09/19/13 20:05	6020
Sodium	87300		1	400	100	09/19/13 20:05	6020
Thallium	ND		1	2.00	0.500	09/19/13 20:05	6020
Vanadium	3.77	J	1	8.00	2.00	09/19/13 20:05	6020
Zinc	ND		1	8.00	4.00	09/19/13 20:05	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Cyanide, Total

Client/Project: EWMA/50 DIVISION AVE. - 208322

Date Received: 09/18/13 16:25
Method: 335.4

Lab ID	Client ID	Result	Q	DF	Matrix-Unit	MDL	RL	% Solid	Date Collected	Date Analyzed
E13-09198-007	EX. WELL	ND		1	Aqueous-ug/L	5.00	20.0	0	09/18/13 13:56	09/27/13 15:25

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/20/2013

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA091913b	AQUEOUS	E8924.D	111	99	101
09198-005	AQUEOUS	E8925.D	112	100	103
09198-006	AQUEOUS	E8926.D	112	99	102
09198-007	AQUEOUS	E8927.D	110	98	102
09198-009	AQUEOUS	E8928.D	111	99	101
09234-001	AQUEOUS	E8929.D	113	100	101
09234-017	AQUEOUS	E8930.D	114	100	102
09234-018	AQUEOUS	E8931.D	113	98	103
09234-019	AQUEOUS	E8932.D	112	98	103
09187-005	AQUEOUS	E8933.D	114	99	103
09187-006	AQUEOUS	E8934.D	115	100	103
09187-001	AQUEOUS	E8935.D	112	98	103
09187-005	AQUEOUS	E8936.D	115	98	102
TRIP_BLANK	AQUEOUS	E8937.D	115	99	101
09244-002	AQUEOUS	E8938.D	116	100	103
09187-003	AQUEOUS	E8939.D	114	100	105
LCSA130919b	AQUEOUS	E8940.D	102	100	99
09244-002MS	AQUEOUS	E8941.D	102	100	101
09244-002MSD	AQUEOUS	E8942.D	100	100	100

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	59-138	43-133
SMC2 = Toluene-d8	50 ppb	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	42-152	45-145

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS130923-01	SOIL	F7789.D	104	95	93
09247-006	SOIL	F7790.D	114	93	96
LCSS130923-01	SOIL	F7791.D	103	108	102
09262-001MS	SOIL	F7792.D	96	104	98
09262-001MSD	SOIL	F7793.D	91	102	96
09308-001	SOIL	F7794.D	93	94	87
09308-002	SOIL	F7795.D	94	95	91
09308-003	SOIL	F7796.D	95	93	91
09308-004	SOIL	F7797.D	100	97	89
09308-005	SOIL	F7798.D	100	97	90
09308-006	SOIL	F7799.D	109	101	93
09262-001	SOLID	F7800.D	105	98	93
09262-002	SOLID	F7801.D	105	98	92
09263-001	SOIL	F7802.D	113	99	93
09263-002	SOIL	F7803.D	113	98	91
09263-003	SOIL	F7804.D	116	98	94
09263-004	SOIL	F7805.D	116	99	95
09263-005	SOIL	F7806.D	113	98	91
08883-001	SOIL	F7807.D	118	98	95
09198-003	SOIL	F7808.D	113	98	94
09215-001	SOIL	F7809.D	100	97	94

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	55-153	36-162
SMC2 = Toluene-d8	50 ppb	56-151	46-156
SMC3 = Bromofluorobenzene	50 ppb	67-140	43-151

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

8260LCS

LCS ACCURACY REPORT

Lab ID: LCSA130919b
Date Received: NA
Date Analyzed: 09/20/2013
LCS Data file: E8940.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	49.1	98
Chloromethane	50.0	0.00	52.9	106
Vinyl chloride	50.0	0.00	37.7	75
Bromomethane	50.0	0.00	45.1	90
Chloroethane	50.0	0.00	59.4	119
Trichlorofluoromethane	50.0	0.00	48.2	96
Acrolein	150	0.00	139.0	93
1,1-Dichloroethene	50.0	0.00	46.0	92
Acetone	50.0	0.00	44.7	89
Carbon disulfide	50.0	0.00	47.8	96
Vinyl acetate	50.0	0.00	41.5	83
Methylene chloride	50.0	0.00	46.6	93
Acrylonitrile	150.0	0.00	173.9	116
tert-Butyl alcohol (TBA)	100.0	0.00	111.5	112
trans-1,2-Dichloroethene	50.0	0.00	48.8	98
Methyl tert-butyl ether (MTBE)	50.0	0.00	52.4	105
1,1-Dichloroethane	50.0	0.00	50.5	101
Diisopropyl ether (DIPE)	50.0	0.00	50.0	100
cis-1,2-Dichloroethene	50.0	0.00	50.8	102
2,2-Dichloropropane	50.0	0.00	56.3	113
2-Butanone (MEK)	50.0	0.30	52.6	105
Bromochloromethane	50.0	0.00	50.8	102
Chloroform	50.0	0.00	51.0	102
1,1,1-Trichloroethane	50.0	0.00	49.2	98
Carbon tetrachloride	50.0	0.00	46.6	93
1,1-Dichloropropene	50.0	0.00	45.8	92
1,2-Dichloroethane (EDC)	50.0	0.00	51.5	103
Benzene	50.0	0.00	49.1	98
Trichloroethene	50.0	0.00	49.8	100
1,2-Dichloropropane	50.0	0.00	49.3	99
Dibromomethane	50.0	0.00	51.1	102
1,4-Dioxane	1500	0.00	1744	116
Bromodichloromethane	50.0	0.00	51.1	102
2-Chloroethyl vinyl ether	50.0	0.00	51.0	102
cis-1,3-Dichloropropene	50.0	0.00	46.2	92
4-Methyl-2-pentanone (MIBK)	50.0	0.00	44.0	88
Toluene	50.0	0.00	47.7	95
trans-1,3-Dichloropropene	50.0	0.00	47.9	96
1,1,2-Trichloroethane	50.0	0.00	50.8	102
Tetrachloroethene	50.0	2.86	46.1	86
1,3-Dichloropropane	50.0	0.00	51.6	103

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA130919b
Date Received: NA
Date Analyzed: 09/20/2013
LCS Data file: E8940.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
2-Hexanone	50.0	0.00	39.4	79
Dibromochloromethane	50.0	0.00	52.6	105
1,2-Dibromoethane (EDB)	50.0	0.00	51.9	104
Chlorobenzene	50.0	0.00	48.5	97
1,1,1,2-Tetrachloroethane	50.0	0.00	51.8	104
Ethylbenzene	50.0	0.00	47.9	96
m,p-Xylene	100.0	0.00	96.5	97
o-Xylene	50.0	0.00	50.0	100
Styrene	50.0	0.00	43.9	88
Bromoform	50.0	0.00	53.1	106
Isopropylbenzene	50.0	0.00	49.1	98
1,1,2,2-Tetrachloroethane	50.0	0.00	49.5	99
Bromobenzene	50.0	0.00	48.9	98
1,2,3-Trichloropropane	50.0	0.00	50.7	101
n-Propylbenzene	50.0	0.00	46.6	93
2-Chlorotoluene	50.0	0.00	48.7	97
1,3,5-Trimethylbenzene	50.0	0.00	49.8	100
4-Chlorotoluene	50.0	0.00	48.3	97
tert-Butylbenzene	50.0	0.00	49.0	98
1,2,4-Trimethylbenzene	50.0	0.00	49.7	99
sec-Butylbenzene	50.0	0.00	45.6	91
1,3-Dichlorobenzene	50.0	0.00	47.6	95
4-Isopropyltoluene	50.0	0.00	47.0	94
1,4-Dichlorobenzene	50.0	0.00	48.2	96
n-Butylbenzene	50.0	0.00	42.7	85
1,2-Dichlorobenzene	50.0	0.00	49.0	98
1,2-Dibromo-3-chloropropane	50.0	0.00	56.5	113
1,2,4-Trichlorobenzene	50.0	0.00	50.2	100
Hexachlorobutadiene	50.0	0.00	36.9	74
Naphthalene	50.0	0.00	59.8	120
1,2,3-Trichlorobenzene	50.0	0.00	52.1	104
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	44.0	88
Methyl acetate	50.0	0.00	52.9	106
Cyclohexane	50.0	0.00	40.9	82
Methylcyclohexane	50.0	0.00	42.4	85

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits

Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260LCS

LCS ACCURACY REPORT

Lab ID: LCSS130923-01
Date Received:
Date Analyzed: 09/23/2013
LCS Data file: F7791.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	51.5	103
Chloromethane	50.0	0.00	45.9	92
Vinyl chloride	50.0	0.00	46.9	94
Bromomethane	50.0	0.00	50.9	102
Chloroethane	50.0	0.00	48.9	98
Trichlorofluoromethane	50.0	0.00	51.4	103
Acrolein	150	0.00	152.9	102
1,1-Dichloroethene	50.0	0.00	49.4	99
Acetone	50.0	0.00	51.5	103
Carbon disulfide	50.0	0.00	48.7	97
Vinyl acetate	50.0	0.00	46.1	92
Methylene chloride	50.0	0.00	49.7	99
Acrylonitrile	150.0	0.00	170.9	114
tert-Butyl alcohol (TBA)	100.0	0.00	89.3	89
trans-1,2-Dichloroethene	50.0	0.00	46.7	93
Methyl tert-butyl ether (MTBE)	50.0	0.00	46.1	92
1,1-Dichloroethane	50.0	0.00	45.9	92
Diisopropyl ether (DIPE)	50.0	0.00	51.9	104
cis-1,2-Dichloroethene	50.0	0.00	47.7	95
2,2-Dichloropropane	50.0	0.00	49.4	99
2-Butanone (MEK)	50.0	0.00	47.9	96
Bromochloromethane	50.0	0.00	45.5	91
Chloroform	50.0	0.00	47.6	95
1,1,1-Trichloroethane	50.0	0.00	49.9	100
Carbon tetrachloride	50.0	0.00	51.7	103
1,1-Dichloropropene	50.0	0.00	50.0	100
1,2-Dichloroethane (EDC)	50.0	0.00	50.0	100
Benzene	50.0	0.00	47.5	95
Trichloroethene	50.0	0.00	50.7	101
1,2-Dichloropropane	50.0	0.00	48.1	96
Dibromomethane	50.0	0.00	47.9	96
1,4-Dioxane	1500	0.00	1469	98
Bromodichloromethane	50.0	0.00	49.5	99
2-Chloroethyl vinyl ether	50.0	0.00	48.4	97
cis-1,3-Dichloropropene	50.0	0.00	53.7	107
4-Methyl-2-pentanone (MIBK)	50.0	0.00	51.5	103
Toluene	50.0	0.00	48.9	98
trans-1,3-Dichloropropene	50.0	0.00	53.2	106
1,1,2-Trichloroethane	50.0	0.00	49.5	99
Tetrachloroethene	50.0	0.00	52.8	106
1,3-Dichloropropane	50.0	0.00	51.4	103

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130923-01
Date Received:
Date Analyzed: 09/23/2013
LCS Data file: F7791.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
2-Hexanone	50.0	0.00	51.8	104
Dibromochloromethane	50.0	0.00	52.0	104
1,2-Dibromoethane (EDB)	50.0	0.00	48.9	98
Chlorobenzene	50.0	0.00	44.4	89
1,1,1,2-Tetrachloroethane	50.0	0.00	48.0	96
Ethylbenzene	50.0	0.00	50.3	101
m,p-Xylene	100.0	0.00	98.5	99
o-Xylene	50.0	0.00	47.9	96
Styrene	50.0	0.00	49.4	99
Bromoform	50.0	0.00	47.2	94
Isopropylbenzene	50.0	0.00	50.7	101
1,1,2,2-Tetrachloroethane	50.0	0.00	44.6	89
Bromobenzene	50.0	0.00	46.7	93
1,2,3-Trichloropropane	50.0	0.00	46.0	92
n-Propylbenzene	50.0	0.00	50.9	102
2-Chlorotoluene	50.0	0.00	51.0	102
1,3,5-Trimethylbenzene	50.0	0.00	51.9	104
4-Chlorotoluene	50.0	0.00	39.5	79
tert-Butylbenzene	50.0	0.00	53.0	106
1,2,4-Trimethylbenzene	50.0	0.00	51.5	103
sec-Butylbenzene	50.0	0.00	53.4	107
1,3-Dichlorobenzene	50.0	0.00	47.8	96
4-Isopropyltoluene	50.0	0.00	51.9	104
1,4-Dichlorobenzene	50.0	0.00	47.2	94
n-Butylbenzene	50.0	0.00	52.8	106
1,2-Dichlorobenzene	50.0	0.00	49.2	98
1,2-Dibromo-3-chloropropane	50.0	0.00	46.0	92
1,2,4-Trichlorobenzene	50.0	0.00	52.1	104
Hexachlorobutadiene	50.0	0.00	49.8	100
Naphthalene	50.0	0.00	52.9	106
1,2,3-Trichlorobenzene	50.0	0.00	51.1	102
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	50.5	101
Methyl acetate	50.0	0.00	43.4	87
Cyclohexane	50.0	0.00	47.4	95
Methylcyclohexane	50.0	0.00	50.4	101

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits
Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: 09244-002
Client ID: AEI-B1
Date Received: NA
Date Analyzed: 09/20/2013
MS Data file: E8941.D
MSD Data file: E8942.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
Dichlorodifluoromethane	50	0.0	62.2	124		63.1	126	1
Chloromethane	50	0.0	51.9	104		54.7	109	5
Vinyl chloride	50	0.0	41.8	84		44.2	88	6
Bromomethane	50	0.0	60.9	122		60.7	121	0
Chloroethane	50	0.0	60.0	120		61.7	123	3
Trichlorofluoromethane	50	0.0	53.8	108		56.9	114	6
Acrolein	150	0.0	130	87		128	85	2
1,1-Dichloroethene	50	0.0	48.9	98		51.1	102	4
Acetone	50	0.0	58.9	118		57.5	115	2
Carbon disulfide	50	0.0	51.7	103		53.2	106	3
Vinyl acetate	50	0.0	53.9	108		53.6	107	1
Methylene chloride	50	0.0	51.4	103		51.4	103	0
Acrylonitrile	150	0.0	160	107		159	106	1
tert-Butyl alcohol (TBA)	100	0.0	119.9	120		111.6	112	7
trans-1,2-Dichloroethene	50	0.0	50.1	100		51.8	104	3
Methyl tert-butyl ether (MTE	50	0.0	53.0	106		53.8	108	1
1,1-Dichloroethane	50	0.0	52.0	104		53.3	107	2
Diisopropyl ether (DIPE)	50	0.0	51.1	102		51.9	104	2
cis-1,2-Dichloroethene	50	0.0	52.4	105		53.5	107	2
2,2-Dichloropropane	50	0.0	51.9	104		51.7	103	0
2-Butanone (MEK)	50	0.3	56.3	112		54.4	108	3
Bromochloromethane	50	0.0	52.4	105		53.8	108	3
Chloroform	50	0.0	51.7	103		53.2	106	3
1,1,1-Trichloroethane	50	0.0	49.8	100		52.3	105	5
Carbon tetrachloride	50	0.0	48.7	97		50.6	101	4
1,1-Dichloropropene	50	0.0	47.9	96		49.6	99	3
1,2-Dichloroethane (EDC)	50	0.0	52.3	105		52.9	106	1
Benzene	50	0.0	49.4	99		51.8	104	5
Trichloroethene	50	0.0	49.2	98		50.8	102	3
1,2-Dichloropropane	50	0.0	49.8	100		51.6	103	4
Dibromomethane	50	0.0	51.9	104		52.3	105	1
1,4-Dioxane	1,500	0.0	1812	121		1741	116	4
Bromodichloromethane	50	0.0	51.5	103		52.9	106	3
2-Chloroethyl vinyl ether	50	0.0	54.7	109		53.6	107	2
cis-1,3-Dichloropropene	50	0.0	52.7	105		54.3	109	3
4-Methyl-2-pentanone (MIBI	50	0.0	56.6	113		55.3	111	2
Toluene	50	0.0	48.3	97		50.7	101	5
trans-1,3-Dichloropropene	50	0.0	54.9	110		56.3	113	3
1,1,2-Trichloroethane	50	0.0	52.3	105		52.4	105	0
Tetrachloroethene	50	2.9	47.2	89		49.7	94	5
1,3-Dichloropropane	50	0.0	53.0	106		53.0	106	0

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 09244-002
Client ID: AEI-B1
Date Received: NA
Date Analyzed: 09/20/2013
MS Data file: E8941.D
MSD Data file: E8942.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
2-Hexanone	50	0.00	60.7	121		58.9	118	3
Dibromochloromethane	50	0.00	54.2	108		55.1	110	2
1,2-Dibromoethane (EDB)	50	0.00	53.7	107		54.4	109	1
Chlorobenzene	50	0.00	49.3	99		51.8	104	5
1,1,1,2-Tetrachloroethane	50	0.00	51.5	103		54.0	108	5
Ethylbenzene	50	0.00	49.7	99		51.6	103	4
m,p-Xylene	100	0.00	99.7	100		104.2	104	4
o-Xylene	50	0.00	51.6	103		53.6	107	4
Styrene	50	0.00	52.1	104		54.2	108	4
Bromoform	50	0.00	56.1	112		55.7	111	1
Isopropylbenzene	50	0.00	50.7	101		53.0	106	4
1,1,2,2-Tetrachloroethane	50	0.00	53.4	107		53.6	107	0
Bromobenzene	50	0.00	50.0	100		51.8	104	4
1,2,3-Trichloropropane	50	0.00	52.8	106		52.8	106	0
n-Propylbenzene	50	0.00	49.3	99		51.4	103	4
2-Chlorotoluene	50	0.00	49.7	99		51.7	103	4
1,3,5-Trimethylbenzene	50	0.00	51.0	102		53.3	107	4
4-Chlorotoluene	50	0.00	49.4	99		51.4	103	4
tert-Butylbenzene	50	0.00	49.9	100		52.8	106	6
1,2,4-Trimethylbenzene	50	0.00	50.7	101		52.8	106	4
sec-Butylbenzene	50	0.00	47.7	95		50.4	101	6
1,3-Dichlorobenzene	50	0.00	48.8	98		50.3	101	3
4-Isopropyltoluene	50	0.00	49.1	98		51.0	102	4
1,4-Dichlorobenzene	50	0.00	49.5	99		51.1	102	3
n-Butylbenzene	50	0.00	47.9	96		50.1	100	4
1,2-Dichlorobenzene	50	0.00	50.0	100		51.4	103	3
1,2-Dibromo-3-chloropropar	50	0.00	58.6	117		59.2	118	1
1,2,4-Trichlorobenzene	50	0.00	51.1	102		52.6	105	3
Hexachlorobutadiene	50	0.00	42.0	84		45.0	90	7
Naphthalene	50	0.00	61.7	123		62.2	124	1
1,2,3-Trichlorobenzene	50	0.00	53.6	107		55.5	111	3
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	47.8	96		50.6	101	6
Methyl acetate	50	0.00	50.5	101		50.4	101	0
Cyclohexane	50	0.00	44.0	88		47.0	94	7
Methylcyclohexane	50	0.00	46.9	94		50.2	100	7

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: 09262-001
Client ID: CS-29
Date Received:
Date Analyzed: 09/23/2013
MS Data file: F7792.D
MSD Data file: F7793.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	49.9	100		44.8	90		11	
Chloromethane	50	0.0	46.2	92		42.7	85		8	
Vinyl chloride	50	0.0	48.7	97		44.1	88		10	
Bromomethane	50	0.0	47.8	96		44.7	89		7	
Chloroethane	50	0.0	48.6	97		44.5	89		9	
Trichlorofluoromethane	50	0.0	46.7	93		41.7	83		11	
Acrolein	150	0.0	168	112		161	107		4	
1,1-Dichloroethene	50	0.0	48.8	98		44.4	89		9	
Acetone	50	0.0	49.5	99		43.9	88		12	
Carbon disulfide	50	0.0	47.7	95		43.7	87		9	
Vinyl acetate	50	0.0	44.1	88		40.9	82		8	
Methylene chloride	50	0.0	47.3	95		43.8	88		8	
Acrylonitrile	150	0.0	192	128		176	117		9	
tert-Butyl alcohol (TBA)	100	0.0	87.1	87		74.9	75		15	
trans-1,2-Dichloroethene	50	0.0	47.9	96		43.7	87		9	
Methyl tert-butyl ether (MTE	50	0.0	45.9	92		42.2	84		8	
1,1-Dichloroethane	50	0.0	45.4	91		42.9	86		6	
Diisopropyl ether (DIPE)	50	0.0	50.9	102		48.9	98		4	
cis-1,2-Dichloroethene	50	0.0	47.6	95		45.2	90		5	
2,2-Dichloropropane	50	0.0	47.1	94		43.3	87		8	
2-Butanone (MEK)	50	0.0	46.8	94		41.4	83		12	
Bromochloromethane	50	0.0	46.3	93		42.9	86		8	
Chloroform	50	0.0	45.5	91		42.6	85		7	
1,1,1-Trichloroethane	50	0.0	47.9	96		44.1	88		8	
Carbon tetrachloride	50	0.0	48.0	96		43.8	88		9	
1,1-Dichloropropene	50	0.0	49.3	99		45.8	92		7	
1,2-Dichloroethane (EDC)	50	0.0	45.4	91		41.5	83		9	
Benzene	50	0.0	47.1	94		45.1	90		4	
Trichloroethene	50	0.0	50.5	101		47.0	94		7	
1,2-Dichloropropane	50	0.0	46.7	93		44.5	89		5	
Dibromomethane	50	0.0	46.0	92		41.7	83		10	
1,4-Dioxane	1,500	0.0	1751	117		1608	107		9	
Bromodichloromethane	50	0.0	46.9	94		43.6	87		7	
2-Chloroethyl vinyl ether	50	0.0	48.0	96		44.3	89		8	
cis-1,3-Dichloropropene	50	0.0	50.9	102		47.0	94		8	
4-Methyl-2-pentanone (MIBI	50	0.0	51.2	102		45.0	90		13	
Toluene	50	0.0	47.8	96		44.1	88		8	
trans-1,3-Dichloropropene	50	0.0	50.3	101		45.7	91		10	
1,1,2-Trichloroethane	50	0.0	46.6	93		42.7	85		9	
Tetrachloroethene	50	0.0	50.2	100		46.5	93		8	
1,3-Dichloropropane	50	0.0	49.2	98		44.7	89		10	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 09262-001
Client ID: CS-29
Date Received:
Date Analyzed: 09/23/2013
MS Data file: F7792.D
MSD Data file: F7793.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50	0.00	50.9	102		43.3	87		16	
Dibromochloromethane	50	0.00	48.9	98		44.4	89		10	
1,2-Dibromoethane (EDB)	50	0.00	46.4	93		42.4	85		9	
Chlorobenzene	50	0.00	43.6	87		41.6	83		5	
1,1,1,2-Tetrachloroethane	50	0.00	46.3	93		44.8	90		3	
Ethylbenzene	50	0.00	48.7	97		46.6	93		4	
m,p-Xylene	100	0.00	96.7	97		92.5	93		4	
o-Xylene	50	0.00	47.3	95		45.6	91		4	
Styrene	50	0.00	48.1	96		45.7	91		5	
Bromoform	50	0.00	44.9	90		42.5	85		5	
Isopropylbenzene	50	0.00	48.8	98		46.7	93		4	
1,1,2,2-Tetrachloroethane	50	0.00	43.2	86		40.3	81		7	
Bromobenzene	50	0.00	44.8	90		42.7	85		5	
1,2,3-Trichloropropane	50	0.00	44.3	89		40.4	81		9	
n-Propylbenzene	50	0.00	48.8	98		46.3	93		5	
2-Chlorotoluene	50	0.00	48.5	97		45.5	91		6	
1,3,5-Trimethylbenzene	50	0.00	49.3	99		46.2	92		6	
4-Chlorotoluene	50	0.00	37.5	75		35.3	71		6	
tert-Butylbenzene	50	0.00	50.4	101		47.9	96		5	
1,2,4-Trimethylbenzene	50	0.00	48.7	97		46.0	92		6	
sec-Butylbenzene	50	0.00	50.9	102		48.4	97		5	
1,3-Dichlorobenzene	50	0.00	45.6	91		43.0	86		6	
4-Isopropyltoluene	50	0.00	49.3	99		46.1	92		7	
1,4-Dichlorobenzene	50	0.00	45.0	90		42.2	84		6	
n-Butylbenzene	50	0.00	49.6	99		46.6	93		6	
1,2-Dichlorobenzene	50	0.00	46.6	93		43.6	87		7	
1,2-Dibromo-3-chloropropan	50	0.00	44.5	89		38.8	78		14	
1,2,4-Trichlorobenzene	50	0.00	49.8	100		47.1	94		6	
Hexachlorobutadiene	50	0.00	48.0	96		44.9	90		7	
Naphthalene	50	0.00	51.3	103		47.9	96		7	
1,2,3-Trichlorobenzene	50	0.00	49.7	99		46.0	92		8	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	50.2	100		46.3	93		8	
Methyl acetate	50	0.00	45.1	90		41.1	82		9	
Cyclohexane	50	0.00	48.9	98		47.0	94		4	
Methylcyclohexane	50	0.00	51.2	102		48.3	97		6	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

VOLATILE METHOD BLANK SUMMARY

Lab File ID: E8924.D Instrument ID: MSD_E

Date Analyzed: 09/20/2013 Time Analyzed: 02:47

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
AOC-7-2	09198-005	09/20/2013	3:15
AOC-7-4	09198-006	09/20/2013	3:43
EX._WELL	09198-007	09/20/2013	4:10
TB	09198-009	09/20/2013	4:38
MW-1/9.18	09234-001	09/20/2013	5:05
FB-1	09234-017	09/20/2013	5:32
FB-2	09234-018	09/20/2013	6:00
TB-1	09234-019	09/20/2013	6:27
FIELD_BLANK	09187-005	09/20/2013	6:55
TRIP_BLANK	09187-006	09/20/2013	7:23
MW-1	09187-001	09/20/2013	7:51
FIELD_BLANK	09187-005	09/20/2013	8:18
09267-006	TRIP_BLANK	09/20/2013	9:37
AEI-B1	09244-002	09/20/2013	10:05
MW-3	09187-003	09/20/2013	10:55
LCSA130919b	LCSA130919b	09/20/2013	11:50
09244-002MS	09244-002MS	09/20/2013	12:22
09244-002MSD	09244-002MSD	09/20/2013	12:49

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F7789.D Instrument ID: MSD_F

Date Analyzed: 09/23/2013 Time Analyzed: 18:41

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
B-23	09247-006	09/23/2013	19:11
LCS-50PPB	LCSS130923-01	09/23/2013	19:42
MS	09262-001MS	09/23/2013	20:12
MSD	09262-001MSD	09/23/2013	20:43
SR-10-SW-6	09308-001	09/23/2013	21:13
SR-10-B-5	09308-002	09/23/2013	21:43
SR-10-B-7	09308-003	09/23/2013	22:14
SR-10-B-8	09308-004	09/23/2013	22:44
SR-10-B-4	09308-005	09/23/2013	23:14
SR-10-B-3	09308-006	09/23/2013	23:45
CS-29	09262-001	09/24/2013	0:15
CS-30	09262-002	09/24/2013	0:46
G-40/1.5-2	09263-001	09/24/2013	1:16
G-41/1.5-2	09263-002	09/24/2013	1:46
G-42/1.5-2	09263-003	09/24/2013	2:16
G-43/1.5-2	09263-004	09/24/2013	2:47
G-44/1.5-2	09263-005	09/24/2013	3:17
VTS_D1	08883-001	09/24/2013	3:48
AOC-12-3/1.5-2	09198-003	09/24/2013	4:18
MW-1RR/65.5-66	09215-001	09/24/2013	4:49

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E8803.D

BFB Injection Date: 09/17/2013

Inst ID: MSD_E

BFB Injection Time: 10:12

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.8			
75	30.0 - 60.0% of mass 95	53.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.1			
173	Less than 2.0% of mass 174	0.8	(	1.0	)1
174	Great than 50.0% of mass 95	77.2			
175	5.0 - 9.0% of mass 174	5.2	(	6.7	)1
176	95.0 - 101.0% of mass 174	74.4	(	96.4	)1
177	5.0 - 9.0% of mass 176	5.5	(	7.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC100	ICC100	E8813.D	09/17/2013	15:13
ICC001	ICC001	E8809.D	09/17/2013	13:23
ICC002	ICC002	E8810.D	09/17/2013	13:50
ICC005	ICC005	E8811.D	09/17/2013	14:18
ICC020	ICC020	E8812.D	09/17/2013	14:45
ICC150	ICC150	E8814.D	09/17/2013	15:40
ICC200	ICC200	E8815.D	09/17/2013	16:08
ICV100	ICV100	E8818.D	09/17/2013	17:30

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E8920.D BFB Injection Date: 09/20/2013

Inst ID: MSD_E BFB Injection Time: 0:58

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.8			
75	30.0 - 60.0% of mass 95	55.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.3			
173	Less than 2.0% of mass 174	0.9	(	1.2	)1
174	Great than 50.0% of mass 95	75.4			
175	5.0 - 9.0% of mass 174	5.7	(	7.5	)1
176	95.0 - 101.0% of mass 174	71.7	(	95.1	)1
177	5.0 - 9.0% of mass 176	4.7	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	E8921.D	09/20/2013	1:25
BLKA091913b	BLKA091913b	E8924.D	09/20/2013	2:47
AOC-7-2	09198-005	E8925.D	09/20/2013	3:15
AOC-7-4	09198-006	E8926.D	09/20/2013	3:43
EX._WELL	09198-007	E8927.D	09/20/2013	4:10
TB	09198-009	E8928.D	09/20/2013	4:38
MW-1/9.18	09234-001	E8929.D	09/20/2013	5:05
FB-1	09234-017	E8930.D	09/20/2013	5:32
FB-2	09234-018	E8931.D	09/20/2013	6:00
TB-1	09234-019	E8932.D	09/20/2013	6:27
FIELD_BLANK	09187-005	E8933.D	09/20/2013	6:55
TRIP_BLANK	09187-006	E8934.D	09/20/2013	7:23
MW-1	09187-001	E8935.D	09/20/2013	7:51
FIELD_BLANK	09187-005	E8936.D	09/20/2013	8:18
09267-006	TRIP_BLANK	E8937.D	09/20/2013	9:37
AEI-B1	09244-002	E8938.D	09/20/2013	10:05
MW-3	09187-003	E8939.D	09/20/2013	10:55
LCSA130919b	LCSA130919b	E8940.D	09/20/2013	11:50
09244-002MS	09244-002MS	E8941.D	09/20/2013	12:22
09244-002MSD	09244-002MSD	E8942.D	09/20/2013	12:49

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F7773.D

Inst ID: MSD_F

BFB Injection Date: 09/23/2013

BFB Injection Time: 10:36

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	27.5			
75	30.0 - 60.0% of mass 95	58.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	67.2			
175	5.0 - 9.0% of mass 174	5.2	(	7.8	)1
176	95.0 - 101.0% of mass 174	64.5	(	96.0	)1
177	5.0 - 9.0% of mass 176	4.1	(	6.3	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC2	ICC2	F7775.D	09/23/2013	11:37
ICC20	ICC20	F7777.D	09/23/2013	12:38
ICC100	ICC100	F7778.D	09/23/2013	13:08
ICC200	ICC200	F7779.D	09/23/2013	13:38
ICC150	ICC150	F7780.D	09/23/2013	14:08
ICC1	ICC1	F7783.D	09/23/2013	15:38
ICC5	ICC5	F7784.D	09/23/2013	16:08
ICV100	ICV100	F7785.D	09/23/2013	16:39

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F7786.D

BFB Injection Date: 09/23/2013

Inst ID: MSD_F

BFB Injection Time: 17:10

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.1			
75	30.0 - 60.0% of mass 95	59.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.4			
173	Less than 2.0% of mass 174	1.3	(	1.9	)1
174	Great than 50.0% of mass 95	67.5			
175	5.0 - 9.0% of mass 174	5.1	(	7.6	)1
176	95.0 - 101.0% of mass 174	68.0	(	100.8	)1
177	5.0 - 9.0% of mass 176	4.2	(	6.2	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	F7787.D	09/23/2013	17:40
BLKS130923-01	BLKS130923-01	F7789.D	09/23/2013	18:41
B-23	09247-006	F7790.D	09/23/2013	19:11
LCS-50PPB	LCSS130923-01	F7791.D	09/23/2013	19:42
MS	09262-001MS	F7792.D	09/23/2013	20:12
MSD	09262-001MSD	F7793.D	09/23/2013	20:43
SR-10-SW-6	09308-001	F7794.D	09/23/2013	21:13
SR-10-B-5	09308-002	F7795.D	09/23/2013	21:43
SR-10-B-7	09308-003	F7796.D	09/23/2013	22:14
SR-10-B-8	09308-004	F7797.D	09/23/2013	22:44
SR-10-B-4	09308-005	F7798.D	09/23/2013	23:14
SR-10-B-3	09308-006	F7799.D	09/23/2013	23:45
CS-29	09262-001	F7800.D	09/24/2013	0:15
CS-30	09262-002	F7801.D	09/24/2013	0:46
G-40/1.5-2	09263-001	F7802.D	09/24/2013	1:16
G-41/1.5-2	09263-002	F7803.D	09/24/2013	1:46
G-42/1.5-2	09263-003	F7804.D	09/24/2013	2:16
G-43/1.5-2	09263-004	F7805.D	09/24/2013	2:47
G-44/1.5-2	09263-005	F7806.D	09/24/2013	3:17
VTS_D1	08883-001	F7807.D	09/24/2013	3:48

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F7786.D BFB Injection Date : 09/23/201

Inst ID: MSD_F BFB Injection Time: 17:10

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.1			
75	30.0 - 60.0% of mass 95	59.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.4			
173	Less than 2.0% of mass 174	1.3	(	1.9	)1
174	Great than 50.0% of mass 95	67.5			
175	5.0 - 9.0% of mass 174	5.1	(	7.6	)1
176	95.0 - 101.0% of mass 174	68.0	(	100.8	)1
177	5.0 - 9.0% of mass 176	4.2	(	6.2	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
AOC-12-3/1.5-2	09198-003	F7808.D	09/24/2013	4:18
MW-1RR/65.5-66	09215-001	F7809.D	09/24/2013	4:49

Response Factor Report MSD_E

Method Path : C:\MSDCHEM\1\METHODS\
Method File : E8091713.M
Title : VOLATILE ORGANICS BY EPA METHOD 624
Last Update : Wed Sep 18 10:17:17 2013
Response Via : Initial Calibration

Calibration Files
1 =E8809.D 2 =E8810.D 5 =E8811.D
20 =E8812.D 100 =E8813.D 150 =E8814.D 200 =E8815.D

		Compound	1	2	5	20	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.289	0.225	0.230	0.219	0.253	0.238	0.234	0.241	9.75
3)	P	Chloromethane	0.364	0.361	0.355	0.349	0.355	0.364	0.375	0.360	2.32
4)	C	Vinyl chloride	0.388	0.355	0.330	0.334	0.334	0.353	0.390	0.355	7.14
5)	T	Bromomethane	0.148	0.138	0.135	0.131	0.150	0.161	0.148	0.144	7.19
6)	T	Chloroethane	0.164	0.138	0.172	0.136	0.199	0.140	0.153	0.157	14.50
7)	T	Trichlorofluorome	0.513	0.497	0.511	0.514	0.604	0.433	0.575	0.521	10.62
8)	T	Acrolein	0.016	0.014	0.013	0.013	0.013	0.012	0.013	0.013	8.61
9)	MC	1,1-Dichloroethen	0.355	0.349	0.327	0.316	0.340	0.354	0.351	0.342	4.33
10)	T	Acetone		0.220	0.185	0.175	0.164	0.172	0.171	0.181	11.16
11)	T	Carbon disulfide	1.014	0.970	1.011	0.975	1.056	1.116	1.127	1.038	6.11
12)	T	Vinyl acetate	1.679	1.675	1.780	1.602	1.703	1.856	1.842	1.734	5.44
13)	T	Methylene chlorid	0.496	0.435	0.393	0.366	0.359	0.384	0.383	0.402	11.97
14)	T	Acrylonitrile	0.196	0.191	0.193	0.195	0.191	0.199	0.188	0.193	1.84
15)	T	tert-Butyl alcoho	0.057	0.055	0.056	0.058	0.056	0.060	0.059	0.057	3.09
16)	T	trans-1,2-Dichlor	0.367	0.388	0.378	0.348	0.355	0.375	0.375	0.370	3.75
17)	T	Methyl tert-butyl	1.177	1.215	1.266	1.187	1.202	1.268	1.315	1.233	4.14
18)	P	1,1-Dichloroethan	0.849	0.780	0.817	0.772	0.791	0.877	0.881	0.824	5.52
19)	T	Diisopropyl ether	1.543	1.534	1.594	1.417	1.497	1.644	1.628	1.551	5.10
20)	T	cis-1,2-Dichloroe	0.396	0.423	0.426	0.410	0.424	0.459	0.457	0.428	5.41
21)	T	2,2-Dichloropropa	0.465	0.447	0.436	0.410	0.391	0.416	0.402	0.424	6.23
22)	T	2-Butanone (MEK)	0.310	0.278	0.267	0.267	0.267	0.287	0.287	0.280	5.66
23)	T	Bromochloromethan	0.191	0.192	0.205	0.202	0.202	0.219	0.219	0.204	5.54
25)	C	Chloroform	0.729	0.745	0.749	0.732	0.744	0.800	0.792	0.756	3.75
26)	T	1,1,1-Trichloroet	0.681	0.638	0.627	0.619	0.641	0.669	0.665	0.649	3.60
27)	T	Carbon tetrachlor	0.653	0.620	0.613	0.585	0.649	0.650	0.647	0.631	4.08
28)	T	1,1-Dichloroprope	0.730	0.620	0.614	0.578	0.628	0.652	0.645	0.638	7.34
29)	T	1,2-Dichloroethan	0.715	0.728	0.752	0.712	0.720	0.757	0.744	0.732	2.53
30)	S	1,2-Dichloroethan	0.689	0.691	0.695	0.683	0.674	0.663	0.664	0.680	1.89
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.241	1.241	1.262	1.206	1.275	1.355	1.341	1.274	4.30
33)	M	Trichloroethene	0.333	0.312	0.314	0.302	0.325	0.345	0.341	0.325	4.91
34)	C	1,2-Dichloropropa	0.333	0.336	0.350	0.339	0.358	0.385	0.379	0.354	5.83
35)	T	Dibromomethane	0.206	0.194	0.204	0.196	0.206	0.220	0.217	0.206	4.85
36)	T	1,4-Dioxane	0.004	0.004	0.004	0.004	0.004	0.005	0.004	0.004	9.04
37)	T	Bromodichlorometh	0.416	0.418	0.426	0.422	0.451	0.482	0.475	0.441	6.33
38)	T	2-Chloroethyl vin		0.198	0.214	0.221	0.251	0.273	0.269	0.237	13.11
39)	T	cis-1,3-Dichlorop	0.451	0.467	0.483	0.498	0.545	0.590	0.585	0.517	10.91
40)	T	4-Methyl-2-pentan	0.329	0.330	0.357	0.366	0.383	0.417	0.405	0.370	9.22
41)	S	Toluene-d8	1.226	1.231	1.220	1.231	1.242	1.254	1.246	1.236	0.95
42)	MC	Toluene	0.789	0.797	0.774	0.748	0.784	0.834	0.826	0.793	3.71
43)	T	trans-1,3-Dichlor	0.404	0.394	0.446	0.468	0.516	0.563	0.552	0.478	14.28
44)	T	1,1,2-Trichloroet	0.221	0.220	0.225	0.221	0.228	0.246	0.242	0.229	4.62
45)	T	Tetrachloroethene	0.328	0.325	0.328	0.302	0.332	0.346	0.343	0.329	4.40
46)	T	1,3-Dichloropropa	0.435	0.486	0.479	0.472	0.501	0.546	0.533	0.493	7.66
47)	T	2-Hexanone	0.207	0.231	0.236	0.247	0.259	0.288	0.277	0.249	11.20
48)	T	Dibromochlorometh	0.268	0.275	0.288	0.300	0.331	0.357	0.351	0.310	11.78
49)	T	1,2-Dibromoethane	0.240	0.250	0.256	0.262	0.277	0.298	0.294	0.268	8.24
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	0.933	0.889	0.924	0.881	0.900	0.973	0.953	0.922	3.68

52)	T	1,1,1,2-Tetrachlo	0.311	0.308	0.320	0.318	0.340	0.364	0.358	0.331	6.87
53)	C	Ethylbenzene	1.642	1.610	1.642	1.605	1.709	1.818	1.772	1.686	4.92
54)	T	m,p-Xylene	0.587	0.557	0.604	0.582	0.613	0.657	0.637	0.605	5.61
55)	T	o-Xylene	0.543	0.545	0.588	0.571	0.608	0.637	0.622	0.588	6.27
56)	T	Styrene	0.867	0.897	1.001	0.998	1.030	1.114	1.081	0.998	9.02
57)	P	Bromoform	0.186	0.196	0.221	0.226	0.250	0.268	0.265	0.230	14.02
58)	T	Isopropylbenzene	1.426	1.446	1.556	1.558	1.669	1.767	1.726	1.593	8.34
59)	S	Bromofluorobenzen	0.613	0.624	0.621	0.614	0.614	0.605	0.600	0.613	1.37
60)	P	1,1,2,2-Tetrachlo	0.409	0.441	0.442	0.426	0.427	0.454	0.441	0.434	3.43
61)	T	Bromobenzene	0.384	0.379	0.388	0.374	0.380	0.403	0.392	0.386	2.50
62)	T	1,2,3-Trichloropr	0.379	0.360	0.344	0.349	0.345	0.364	0.356	0.357	3.43
63)	T	n-Propylbenzene	1.842	1.790	1.856	1.832	1.958	2.050	2.003	1.904	5.18
64)	T	2-Chlorotoluene	1.186	1.144	1.183	1.156	1.185	1.271	1.242	1.195	3.82
65)	T	1,3,5-Trimethylbe	1.208	1.244	1.352	1.353	1.422	1.523	1.483	1.369	8.51
66)	T	4-Chlorotoluene	1.422	1.353	1.396	1.336	1.404	1.498	1.456	1.409	3.98
67)	T	tert-Butylbenzene	0.972	0.958	1.012	1.037	1.123	1.179	1.155	1.062	8.42
68)	T	1,2,4-Trimethylbe	1.272	1.284	1.382	1.337	1.415	1.508	1.486	1.383	6.70
69)	T	sec-Butylbenzene	1.646	1.589	1.636	1.599	1.721	1.798	1.769	1.680	4.95
70)	T	1,3-Dichlorobenze	0.746	0.759	0.747	0.706	0.722	0.764	0.753	0.742	2.80
71)	T	4-Isopropyltoluen	1.266	1.277	1.313	1.286	1.397	1.485	1.446	1.353	6.55
72)	T	1,4-Dichlorobenze	0.768	0.756	0.771	0.708	0.743	0.794	0.776	0.759	3.65
73)	T	n-Butylbenzene	1.296	1.195	1.243	1.236	1.299	1.366	1.331	1.281	4.64
74)	T	1,2-Dichlorobenze	0.707	0.719	0.745	0.694	0.708	0.742	0.728	0.720	2.63
75)	T	1,2-Dibromo-3-chl	0.073	0.074	0.078	0.084	0.086	0.092	0.091	0.082	9.22
76)	T	1,2,4-Trichlorobe	0.507	0.491	0.489	0.476	0.476	0.514	0.508	0.494	3.13
78)	T	Naphthalene	0.906	0.907	0.993	1.078	1.069	1.159	1.165	1.040	10.40
79)	T	1,2,3-Trichlorobe	0.465	0.429	0.439	0.417	0.388	0.423	0.420	0.426	5.47
80)	T	1,1,2-Trichloro-1	0.275	0.257	0.258	0.254	0.279	0.265	0.256	0.263	3.88
81)	T	Methyl acetate	0.340	0.309	0.327	0.310	0.307	0.324	0.317	0.319	3.80
82)	T	Cyclohexane			0.801	0.667	0.709	0.680	0.661	0.703	8.14
83)	T	Methylcyclohexane	0.604	0.495	0.511	0.518	0.592	0.567	0.552	0.548	7.64

(#) = Out of Range ### Number of calibration levels exceeded format ###

E8091713.M Wed Sep 18 10:17:25 2013 RT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\09-17-13\
Data File : E8818.D
Acq On : 17 Sep 2013 17:30
Operator : BARBARA
Sample : ICV100,ICV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 17 18:26:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	104	0.00
2	T	Dichlorodifluoromethane	0.241	0.234	2.9	96	0.00
3	P	Chloromethane	0.360	0.367	-1.9	107	0.00
4	C	Vinyl chloride	0.355	0.339	4.5	105	0.00
5	T	Bromomethane	0.144	0.145	-0.7	100	0.03
6	T	Chloroethane	0.157	0.144	8.3	75	0.02
7	T	Trichlorofluoromethane	0.521	0.571	-9.6	98	0.01
8	T	Acrolein	0.013	0.013	0.0	108	0.00
9	MC	1,1-Dichloroethene	0.342	0.347	-1.5	106	0.00
10	T	Acetone	0.181	0.168	7.2	106	0.00
11	T	Carbon disulfide	1.038	1.096	-5.6	108	0.00
12	T	Vinyl acetate	1.734	1.833	-5.7	112	0.00
13	T	Methylene chloride	0.402	0.383	4.7	111	-0.05
14	T	Acrylonitrile	0.193	0.198	-2.6	108	0.00
15	T	tert-Butyl alcohol (TBA)	0.057	0.058	-1.8	109	0.00
16	T	trans-1,2-Dichloroethene	0.370	0.370	0.0	108	0.00
17	T	Methyl tert-butyl ether (MT	1.233	1.262	-2.4	109	0.00
18	P	1,1-Dichloroethane	0.824	0.856	-3.9	112	0.00
19	T	Diisopropyl ether (DIPE)	1.551	1.614	-4.1	112	0.00
20	T	cis-1,2-Dichloroethene	0.428	0.450	-5.1	110	0.00
21	T	2,2-Dichloropropane	0.424	0.428	-0.9	114	0.00
22	T	2-Butanone (MEK)	0.280	0.281	-0.4	109	0.00
23	T	Bromochloromethane	0.204	0.215	-5.4	111	0.00
25	C	Chloroform	0.756	0.771	-2.0	108	0.00
26	T	1,1,1-Trichloroethane	0.649	0.647	0.3	105	0.00
27	T	Carbon tetrachloride	0.631	0.633	-0.3	101	0.00
28	T	1,1-Dichloropropene	0.638	0.631	1.1	104	0.00
29	T	1,2-Dichloroethane (EDC)	0.732	0.744	-1.6	107	0.00
30	S	1,2-Dichloroethane-d4	0.680	0.666	2.1	103	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	105	0.00
32	M	Benzene	1.274	1.318	-3.5	108	0.00
33	M	Trichloroethene	0.325	0.330	-1.5	106	0.00
34	C	1,2-Dichloropropane	0.354	0.369	-4.2	108	0.00
35	T	Dibromomethane	0.206	0.215	-4.4	109	0.00
36	T	1,4-Dioxane	0.004	0.004	0.0	108	0.00
37	T	Bromodichloromethane	0.441	0.463	-5.0	108	0.00
38	T	2-Chloroethyl vinyl ether	0.237	0.261	-10.1	109	0.00
39	T	cis-1,3-Dichloropropene	0.517	0.568	-9.9	109	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.370	0.399	-7.8	109	0.00
41	S	Toluene-d8	1.236	1.236	0.0	104	0.00
42	MC	Toluene	0.793	0.803	-1.3	107	0.00
43	T	trans-1,3-Dichloropropene	0.478	0.540	-13.0	110	0.00
44	T	1,1,2-Trichloroethane	0.229	0.239	-4.4	110	0.00
45	T	Tetrachloroethene	0.329	0.331	-0.6	104	0.00

46	T	1,3-Dichloropropane	0.493	0.524	-6.3	110	0.00
47	T	2-Hexanone	0.249	0.274	-10.0	111	0.00
48	T	Dibromochloromethane	0.310	0.339	-9.4	107	0.00
49	T	1,2-Dibromoethane (EDB)	0.268	0.285	-6.3	108	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	105	0.00
51	MP	Chlorobenzene	0.922	0.942	-2.2	110	0.00
52	T	1,1,1,2-Tetrachloroethane	0.331	0.353	-6.6	109	0.00
53	C	Ethylbenzene	1.686	1.746	-3.6	107	0.00
54	T	m,p-Xylene	0.605	0.627	-3.6	107	0.00
55	T	o-Xylene	0.588	0.622	-5.8	107	0.00
56	T	Styrene	0.998	1.079	-8.1	110	0.00
57	P	Bromoform	0.230	0.255	-10.9	107	0.00
58	T	Isopropylbenzene	1.593	1.688	-6.0	106	0.00
59	S	Bromofluorobenzene	0.613	0.608	0.8	104	0.00
60	P	1,1,2,2-Tetrachloroethane	0.434	0.443	-2.1	109	0.00
61	T	Bromobenzene	0.386	0.392	-1.6	108	0.00
62	T	1,2,3-Trichloropropane	0.357	0.355	0.6	108	0.00
63	T	n-Propylbenzene	1.904	1.962	-3.0	105	0.00
64	T	2-Chlorotoluene	1.195	1.219	-2.0	108	0.00
65	T	1,3,5-Trimethylbenzene	1.369	1.459	-6.6	108	0.00
66	T	4-Chlorotoluene	1.409	1.425	-1.1	107	0.00
67	T	tert-Butylbenzene	1.062	1.127	-6.1	105	0.00
68	T	1,2,4-Trimethylbenzene	1.383	1.443	-4.3	107	0.00
69	T	sec-Butylbenzene	1.680	1.716	-2.1	105	0.00
70	T	1,3-Dichlorobenzene	0.742	0.742	0.0	108	0.00
71	T	4-Isopropyltoluene	1.353	1.413	-4.4	106	0.00
72	T	1,4-Dichlorobenzene	0.759	0.767	-1.1	108	0.00
73	T	n-Butylbenzene	1.281	1.297	-1.2	105	0.00
74	T	1,2-Dichlorobenzene	0.720	0.723	-0.4	107	0.00
75	T	1,2-Dibromo-3-chloropropane	0.082	0.087	-6.1	107	0.00
76	T	1,2,4-Trichlorobenzene	0.494	0.483	2.2	106	0.00
77	T	Hexachlorobutadiene	0.233	0.201	13.7	103	0.00
78	T	Naphthalene	1.040	1.081	-3.9	106	0.00
79	T	1,2,3-Trichlorobenzene	0.426	0.388	8.9	105	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.263	0.267	-1.5	100	0.01
81	T	Methyl acetate	0.319	0.324	-1.6	111	0.00
82	T	Cyclohexane	0.703	0.676	3.8	100	0.00
83	T	Methylcyclohexane	0.548	0.563	-2.7	100	0.00

(#) = Out of Range

E8091713.M Wed Sep 18 10:18:23 2013 RT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8921.D
Acq On : 20 Sep 2013 1:25
Operator : BARBARA
Sample : CCV100,CCV100,A,5mL,100
Misc : NA,NA,NA
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 23 11:53:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	78	0.00
2	T	Dichlorodifluoromethane	0.241	0.217	10.0	67	0.00
3	P	Chloromethane	0.360	0.328	8.9	72	0.00
4	C	Vinyl chloride	0.355	0.344	3.1	81	0.00
5	T	Bromomethane	0.144	0.150	-4.2	78	0.02
6	T	Chloroethane	0.157	0.148	5.7	58	0.01
7	T	Trichlorofluoromethane	0.521	0.481	7.7	62	0.01
8	T	Acrolein	0.013	0.011	15.4	70	0.00
9	MC	1,1-Dichloroethene	0.342	0.409	-19.6	94	0.00
10	T	Acetone	0.181	0.191	-5.5	91	0.00
11	T	Carbon disulfide	1.038	0.860	17.1	64	0.00
12	T	Vinyl acetate	1.734	1.474	15.0	68	0.00
13	T	Methylene chloride	0.402	0.331	17.7	72	-0.05
14	T	Acrylonitrile	0.193	0.188	2.6	77	0.00
15	T	tert-Butyl alcohol (TBA)	0.057	0.060	-5.3	84	-0.01
16	T	trans-1,2-Dichloroethene	0.370	0.369	0.3	81	0.00
17	T	Methyl tert-butyl ether (MT	1.233	1.214	1.5	79	0.00
18	P	1,1-Dichloroethane	0.824	0.699	15.2	69	0.00
19	T	Diisopropyl ether (DIPE)	1.551	1.382	10.9	72	0.00
20	T	cis-1,2-Dichloroethene	0.428	0.371	13.3	69	0.00
21	T	2,2-Dichloropropane	0.424	0.441	-4.0	88	0.00
22	T	2-Butanone (MEK)	0.280	0.271	3.2	80	0.00
23	T	Bromochloromethane	0.204	0.187	8.3	73	0.00
25	C	Chloroform	0.756	0.681	9.9	72	0.00
26	T	1,1,1-Trichloroethane	0.649	0.549	15.4	67	0.00
27	T	Carbon tetrachloride	0.631	0.529	16.2	64	0.00
28	T	1,1-Dichloropropene	0.638	0.528	17.2	66	0.00
29	T	1,2-Dichloroethane (EDC)	0.732	0.725	1.0	79	0.00
30	S	1,2-Dichloroethane-d4	0.680	0.734	-7.9	85	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	78	0.00
32	M	Benzene	1.274	1.084	14.9	66	0.00
33	M	Trichloroethene	0.325	0.277	14.8	66	0.00
34	C	1,2-Dichloropropane	0.354	0.314	11.3	68	0.00
35	T	Dibromomethane	0.206	0.202	1.9	76	0.00
36	T	1,4-Dioxane	0.004	0.004	0.0	75	0.00
37	T	Bromodichloromethane	0.441	0.425	3.6	73	0.00
38	T	2-Chloroethyl vinyl ether	0.237	0.232	2.1	72	0.00
39	T	cis-1,3-Dichloropropene	0.517	0.466	9.9	67	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.370	0.375	-1.4	76	0.00
41	S	Toluene-d8	1.236	1.259	-1.9	79	0.00
42	MC	Toluene	0.793	0.656	17.3	65	0.00
43	T	trans-1,3-Dichloropropene	0.478	0.462	3.3	70	0.00
44	T	1,1,2-Trichloroethane	0.229	0.214	6.6	73	0.00
45	T	Tetrachloroethene	0.329	0.264	19.8	62	0.00

46	T	1,3-Dichloropropane	0.493	0.468	5.1	73	0.00
47	T	2-Hexanone	0.249	0.262	-5.2	79	0.00
48	T	Dibromochloromethane	0.310	0.318	-2.6	75	0.00
49	T	1,2-Dibromoethane (EDB)	0.268	0.263	1.9	74	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	81	0.00
51	MP	Chlorobenzene	0.922	0.757	17.9	68	0.00
52	T	1,1,1,2-Tetrachloroethane	0.331	0.303	8.5	72	0.00
53	C	Ethylbenzene	1.686	1.377	18.3	65	0.00
54	T	m,p-Xylene	0.605	0.497	17.9	65	0.00
55	T	o-Xylene	0.588	0.505	14.1	67	0.00
56	T	Styrene	0.998	0.872	12.6	68	0.00
57	P	Bromoform	0.230	0.236	-2.6	76	0.00
58	T	Isopropylbenzene	1.593	1.343	15.7	65	0.00
59	S	Bromofluorobenzene	0.613	0.626	-2.1	82	0.00
60	P	1,1,2,2-Tetrachloroethane	0.434	0.391	9.9	74	0.00
61	T	Bromobenzene	0.386	0.330	14.5	70	0.00
62	T	1,2,3-Trichloropropane	0.357	0.333	6.7	78	0.00
63	T	n-Propylbenzene	1.904	1.543	19.0	64	0.00
64	T	2-Chlorotoluene	1.195	1.005	15.9	68	0.00
65	T	1,3,5-Trimethylbenzene	1.369	1.189	13.1	67	0.00
66	T	4-Chlorotoluene	1.409	1.180	16.3	68	0.00
67	T	tert-Butylbenzene	1.062	0.909	14.4	65	0.00
68	T	1,2,4-Trimethylbenzene	1.383	1.192	13.8	68	0.00
69	T	sec-Butylbenzene	1.680	1.357	19.2	64	0.00
70	T	1,3-Dichlorobenzene	0.742	0.608	18.1	68	0.00
71	T	4-Isopropyltoluene	1.353	1.124	16.9	65	0.00
72	T	1,4-Dichlorobenzene	0.759	0.639	15.8	69	0.00
73	T	n-Butylbenzene	1.281	1.027	19.8	64	0.00
74	T	1,2-Dichlorobenzene	0.720	0.618	14.2	71	0.00
75	T	1,2-Dibromo-3-chloropropane	0.082	0.087	-6.1	82	0.00
76	T	1,2,4-Trichlorobenzene	0.494	0.416	15.8	70	0.00
78	T	Naphthalene	1.040	0.999	3.9	75	0.00
79	T	1,2,3-Trichlorobenzene	0.426	0.353	17.1	73	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.263	0.219	16.7	63	0.02
81	T	Methyl acetate	0.319	0.296	7.2	78	0.00
82	T	Cyclohexane	0.703	0.648	7.8	74	0.00
83	T	Methylcyclohexane	0.548	0.649	-18.4	89	0.37

(#) = Out of Range

E8091713.M Mon Sep 23 11:53:43 2013 RT1

Response Factor Report MSD_F

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FSO0923.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Sep 24 09:22:13 2013
Response Via : Initial Calibration

Calibration Files
1 =F7783.D 2 =F7775.D 5 =F7784.D
20 =F7777.D 100 =F7778.D 200 =F7779.D 150 =F7780.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	ISTD								
2)	T	Dichlorodifluorom	1.044	1.259	0.848	1.165	1.201	1.064	1.012	1.085	12.69
3)	P	Chloromethane	1.008	1.127	1.058	1.115	0.965	0.830	0.844	0.992	12.11
4)	C	Vinyl chloride	1.306	1.313	1.058	1.377	1.213	1.063	1.022	1.193	12.14
5)	T	Bromomethane	0.762	0.713	0.712	0.820	0.658	0.537	0.584	0.684	14.41
6)	T	Chloroethane	0.694	0.709	0.725	0.742	0.628	0.528	0.534	0.652	13.76
7)	T	Trichlorofluorome	2.080	2.295	1.734	2.275	1.843	1.686	1.750	1.952	13.38
8)	T	Acrolein	0.119	0.118	0.114	0.124	0.091	0.093	0.116	0.111	11.85
9)	MC	1,1-Dichloroethen	1.073	1.083	0.903	1.134	0.984	0.887	0.849	0.988	11.26
10)	T	Acetone			0.360	0.331	0.295	0.303	0.263	0.310	11.90
11)	T	Carbon disulfide	3.988	3.925	3.095	3.710	3.315	3.004	2.987	3.432	12.69
12)	T	Vinyl acetate	2.656	2.582	2.452	2.638	2.559	2.427	2.396	2.530	4.13
13)	T	Methylene chlorid		1.245	1.215	1.193	0.977	0.965	1.008	1.101	11.82
14)	T	Acrylonitrile	0.223	0.210	0.220	0.231	0.166	0.180	0.239	0.210	12.89
15)	T	tert-Butyl alcoho		0.120	0.128	0.110	0.100	0.100	0.096	0.109	11.81
16)	T	trans-1,2-Dichlor	0.830	0.809	0.786	0.767	0.667	0.683	0.671	0.745	9.31
17)	T	Methyl tert-butyl	2.855	2.882	2.574	2.524	2.320	2.280	2.317	2.536	9.97
18)	P	1,1-Dichloroethan	1.729	1.742	1.587	1.541	1.391	1.337	1.347	1.525	11.29
19)	T	Diisopropyl ether	2.080	2.289	2.285	2.566	2.437	2.326	2.364	2.335	6.41
20)	T	cis-1,2-Dichloroe	0.876	0.695	0.696	0.682	0.673	0.661	0.678	0.709	10.55
21)	T	2,2-Dichloropropa		1.553	1.395	1.394	1.236	1.074	1.187	1.306	13.22
22)	T	2-Butanone (MEK)	0.422	0.397	0.316	0.387	0.335	0.343	0.320	0.360	11.56
23)	T	Bromochloromethan	0.330	0.321	0.283	0.265	0.245	0.246	0.252	0.278	12.78
25)	C	Chloroform	1.989	1.894	1.842	1.758	1.572	1.485	1.467	1.715	12.14
26)	T	1,1,1-Trichloroet	1.837	1.940	1.544	1.864	1.694	1.550	1.549	1.711	9.90
27)	T	Carbon tetrachlor	1.529	1.615	1.398	1.616	1.550	1.429	1.370	1.501	6.80
28)	T	1,1-Dichloroprope	1.246	1.188	0.979	1.246	1.222	1.171	1.147	1.171	7.91
29)	T	1,2-Dichloroethan	1.775	1.805	1.822	1.690	1.534	1.419	1.329	1.625	12.21
30)	S	1,2-Dichloroethan	1.208	1.245	1.175	1.141	1.029	0.965	0.914	1.097	11.65
31)	I	1,4-Difluorobenzene	ISTD								
32)	M	Benzene	2.604	2.136	2.114	2.081	2.143	2.207	2.138	2.204	8.20
33)	M	Trichloroethene	0.660	0.592	0.514	0.592	0.620	0.618	0.590	0.598	7.43
34)	C	1,2-Dichloropropa	0.578	0.582	0.525	0.506	0.516	0.512	0.499	0.531	6.48
35)	T	Dibromomethane	0.422	0.401	0.363	0.340	0.338	0.330	0.314	0.358	11.01
36)	T	1,4-Dioxane	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	8.24
37)	T	Bromodichlorometh	1.060	1.019	0.942	0.936	0.974	0.941	0.883	0.965	6.07
38)	T	2-Chloroethyl vin	0.272	0.238	0.229	0.223	0.277	0.299	0.284	0.260	11.42
39)	T	cis-1,3-Dichlorop	0.780	0.846	0.758	0.850	0.953	0.956	0.912	0.865	9.14
40)	T	4-Methyl-2-pentan	0.431	0.437	0.435	0.475	0.533	0.541	0.507	0.480	9.91
41)	S	Toluene-d8	1.476	1.419	1.465	1.452	1.498	1.446	1.437	1.456	1.80
42)	MC	Toluene	1.590	1.318	1.251	1.317	1.390	1.396	1.355	1.374	7.81
43)	T	trans-1,3-Dichlor	0.954	0.795	0.793	0.871	1.004	1.005	0.932	0.908	9.93
44)	T	1,1,2-Trichloroet	0.417	0.365	0.349	0.319	0.330	0.334	0.323	0.348	9.87
45)	T	Tetrachloroethene	0.589	0.505	0.463	0.570	0.612	0.598	0.573	0.559	9.70
46)	T	1,3-Dichloropropa	0.885	0.736	0.742	0.742	0.799	0.808	0.765	0.782	6.83
47)	T	2-Hexanone	0.326	0.336	0.367	0.375	0.415	0.430	0.389	0.377	10.22
48)	T	Dibromochlorometh	0.522	0.498	0.478	0.492	0.546	0.542	0.510	0.512	4.97
49)	T	1,2-Dibromoethane	0.501	0.397	0.388	0.370	0.398	0.404	0.387	0.406	10.59
50)	I	Chlorobenzene-d5	ISTD								
51)	MP	Chlorobenzene	1.980	1.597	1.447	1.426	1.428	1.461	1.409	1.535	13.41
52)	T	1,1,1,2-Tetrachlo	0.593	0.574	0.541	0.560	0.570	0.560	0.543	0.563	3.19

53)	C	Ethylbenzene	2.886	2.635	2.644	3.139	3.265	3.356	3.223	3.021	9.89
54)	T	m,p-Xylene	0.924	0.928	0.899	1.067	1.132	1.199	1.116	1.038	11.55
55)	T	o-Xylene	0.889	1.008	1.014	0.985	1.059	1.087	1.037	1.011	6.31
56)	T	Styrene	1.407	1.562	1.661	1.654	1.793	1.893	1.790	1.680	9.72
57)	P	Bromoform	0.410	0.327	0.328	0.333	0.363	0.379	0.352	0.356	8.68
58)	T	Isopropylbenzene		2.599	2.558	3.109	3.329	3.340	3.198	3.022	11.73
59)	S	Bromofluorobenzen	0.785	0.854	0.837	0.869	0.835	0.812	0.781	0.825	4.05
60)	P	1,1,2,2-Tetrachlo	0.763	0.669	0.628	0.607	0.600	0.615	0.592	0.639	9.40
61)	T	Bromobenzene	0.726	0.665	0.610	0.617	0.628	0.625	0.601	0.639	6.82
62)	T	1,2,3-Trichloropr	0.890	0.859	0.753	0.727	0.695	0.688	0.640	0.750	12.27
63)	T	n-Propylbenzene	3.616	3.158	3.449	4.037	4.114	4.137	3.910	3.774	9.94
64)	T	2-Chlorotoluene	2.313	2.256	2.165	2.521	2.508	2.455	2.364	2.369	5.65
65)	T	1,3,5-Trimethylbe	2.548	2.513	2.495	3.050	3.102	3.095	2.915	2.817	10.16
66)	T	4-Chlorotoluene	2.921	3.104	2.980	3.192	3.174	3.116	2.933	3.060	3.71
67)	T	tert-Butylbenzene	1.636	1.749	1.669	2.100	2.237	2.190	2.076	1.951	13.17
68)	T	1,2,4-Trimethylbe	2.369	2.707	2.774	3.072	3.093	3.073	2.890	2.854	9.24
69)	T	sec-Butylbenzene	2.778	2.868	2.755	3.601	3.705	3.690	3.506	3.272	13.66
70)	T	1,3-Dichlorobenze	1.423	1.350	1.210	1.267	1.266	1.260	1.203	1.283	6.12
71)	T	4-Isopropyltoluen	2.362	2.468	2.374	2.968	2.985	2.964	2.786	2.701	10.73
72)	T	1,4-Dichlorobenze	1.517	1.373	1.262	1.307	1.297	1.283	1.216	1.322	7.43
73)	T	n-Butylbenzene		1.419	1.152	1.613	1.688	1.699	1.577	1.525	13.67
74)	T	1,2-Dichlorobenze	1.273	1.331	1.186	1.234	1.236	1.225	1.143	1.233	4.85
75)	T	1,2-Dibromo-3-chl	0.204	0.183	0.150	0.166	0.161	0.167	0.146	0.168	11.72
76)	T	1,2,4-Trichlorobe	0.739	0.739	0.613	0.827	0.863	0.883	0.807	0.782	11.86
77)	T	Hexachlorobutadie	0.828	0.766	0.595	0.762	0.682	0.657	0.601	0.699	12.77
78)	T	Naphthalene	1.477	1.507	1.304	1.583	1.605	1.740	1.583	1.543	8.71
79)	T	1,2,3-Trichlorobe	0.732	0.824	0.704	0.790	0.752	0.754	0.700	0.751	5.96
80)	T	1,1,2-Trichloro-1	0.738	0.821	0.593	0.796	0.752	0.674	0.627	0.714	11.98
81)	T	Methyl acetate	0.443	0.461	0.493	0.464	0.405	0.425	0.403	0.442	7.56
82)	T	Cyclohexane			0.883	1.151	1.015	0.993	0.997	1.008	9.47
83)	T	Methylcyclohexane	0.848	0.917	0.785	1.037	1.011	0.974	0.956	0.933	9.63

(#) = Out of Range ### Number of calibration levels exceeded format ###

FSO0923.M Tue Sep 24 09:22:39 2013 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7785.D
Acq On : 23 Sep 2013 16:39
Operator : XING
Sample : ICV100,ICV100,S,5g,0
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 24 11:13:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 24 09:22:13 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	96	0.00
2	T	Dichlorodifluoromethane	1.085	1.193	-10.0	96	0.01
3	P	Chloromethane	0.992	0.964	2.8	96	0.01
4	C	Vinyl chloride	1.193	1.194	-0.1	95	0.01
5	T	Bromomethane	0.684	0.667	2.5	98	-0.01
6	T	Chloroethane	0.652	0.634	2.8	97	-0.01
7	T	Trichlorofluoromethane	1.952	1.984	-1.6	104	0.00
8	T	Acrolein	0.111	0.117	-5.4	124	0.01
9	MC	1,1-Dichloroethene	0.988	1.015	-2.7	100	0.00
10	T	Acetone	0.310	0.310	0.0	101	0.01
11	T	Carbon disulfide	3.432	3.498	-1.9	102	0.00
12	T	Vinyl acetate	2.530	2.556	-1.0	96	-0.02
13	T	Methylene chloride	1.101	1.043	5.3	103	0.00
14	T	Acrylonitrile	0.210	0.230	-9.5	134	0.00
15	T	tert-Butyl alcohol (TBA)	0.109	0.100	8.3	96	0.00
16	T	trans-1,2-Dichloroethene	0.745	0.709	4.8	103	0.00
17	T	Methyl tert-butyl ether (MT	2.536	2.375	6.3	99	0.00
18	P	1,1-Dichloroethane	1.525	1.454	4.7	101	0.00
19	T	Diisopropyl ether (DIPE)	2.335	2.505	-7.3	99	0.00
20	T	cis-1,2-Dichloroethene	0.709	0.709	0.0	102	0.00
21	T	2,2-Dichloropropane	1.306	1.389	-6.4	108	0.01
22	T	2-Butanone (MEK)	0.360	0.338	6.1	97	0.00
23	T	Bromochloromethane	0.278	0.259	6.8	102	0.01
25	C	Chloroform	1.715	1.647	4.0	101	0.00
26	T	1,1,1-Trichloroethane	1.711	1.803	-5.4	103	0.00
27	T	Carbon tetrachloride	1.501	1.621	-8.0	101	0.00
28	T	1,1-Dichloropropene	1.171	1.265	-8.0	100	0.01
29	T	1,2-Dichloroethane (EDC)	1.625	1.589	2.2	100	0.00
30	S	1,2-Dichloroethane-d4	1.097	1.059	3.5	99	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
32	M	Benzene	2.204	2.224	-0.9	102	0.01
33	M	Trichloroethene	0.598	0.645	-7.9	102	0.00
34	C	1,2-Dichloropropane	0.531	0.521	1.9	99	0.00
35	T	Dibromomethane	0.358	0.347	3.1	101	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	114	0.00
37	T	Bromodichloromethane	0.965	0.989	-2.5	100	0.00
38	T	2-Chloroethyl vinyl ether	0.260	0.276	-6.2	98	0.00
39	T	cis-1,3-Dichloropropene	0.865	0.973	-12.5	100	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.480	0.530	-10.4	98	0.00
41	S	Toluene-d8	1.456	1.522	-4.5	100	0.00
42	MC	Toluene	1.374	1.436	-4.5	102	0.00
43	T	trans-1,3-Dichloropropene	0.908	1.017	-12.0	100	0.00
44	T	1,1,2-Trichloroethane	0.348	0.339	2.6	101	0.00
45	T	Tetrachloroethene	0.559	0.624	-11.6	100	0.00
46	T	1,3-Dichloropropane	0.782	0.818	-4.6	101	0.00

47	T	2-Hexanone	0.377	0.415	-10.1	98	0.00
48	T	Dibromochloromethane	0.512	0.554	-8.2	100	0.00
49	T	1,2-Dibromoethane (EDB)	0.406	0.406	0.0	100	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.01
51	MP	Chlorobenzene	1.535	1.483	3.4	103	0.00
52	T	1,1,1,2-Tetrachloroethane	0.563	0.585	-3.9	102	0.00
53	C	Ethylbenzene	3.021	3.374	-11.7	102	0.00
54	T	m,p-Xylene	1.038	1.162	-11.9	102	0.00
55	T	o-Xylene	1.011	1.088	-7.6	102	0.00
56	T	Styrene	1.680	1.853	-10.3	102	0.01
57	P	Bromoform	0.356	0.362	-1.7	99	0.00
58	T	Isopropylbenzene	3.022	3.430	-13.5	102	0.00
59	S	Bromofluorobenzene	0.825	0.833	-1.0	99	0.00
60	P	1,1,2,2-Tetrachloroethane	0.639	0.599	6.3	99	0.00
61	T	Bromobenzene	0.639	0.648	-1.4	102	0.00
62	T	1,2,3-Trichloropropane	0.750	0.701	6.5	100	0.00
63	T	n-Propylbenzene	3.774	4.233	-12.2	102	0.00
64	T	2-Chlorotoluene	2.369	2.570	-8.5	102	0.00
65	T	1,3,5-Trimethylbenzene	2.817	3.194	-13.4	102	0.00
66	T	4-Chlorotoluene	3.060	3.246	-6.1	101	0.00
67	T	tert-Butylbenzene	1.951	2.262	-15.9	100	0.00
68	T	1,2,4-Trimethylbenzene	2.854	3.191	-11.8	102	0.00
69	T	sec-Butylbenzene	3.272	3.842	-17.4	103	0.00
70	T	1,3-Dichlorobenzene	1.283	1.313	-2.3	103	0.00
71	T	4-Isopropyltoluene	2.701	3.051	-13.0	101	0.00
72	T	1,4-Dichlorobenzene	1.322	1.330	-0.6	102	0.00
73	T	n-Butylbenzene	1.525	1.738	-14.0	102	0.00
74	T	1,2-Dichlorobenzene	1.233	1.244	-0.9	100	0.00
75	T	1,2-Dibromo-3-chloropropane	0.168	0.157	6.5	96	0.00
76	T	1,2,4-Trichlorobenzene	0.782	0.868	-11.0	100	0.00
77	T	Hexachlorobutadiene	0.699	0.694	0.7	101	0.01
78	T	Naphthalene	1.543	1.598	-3.6	99	0.00
79	T	1,2,3-Trichlorobenzene	0.751	0.747	0.5	98	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.714	0.751	-5.2	99	0.00
81	T	Methyl acetate	0.442	0.402	9.0	98	0.00
82	T	Cyclohexane	1.008	1.031	-2.3	101	0.00
83	T	Methylcyclohexane	0.933	1.040	-11.5	102	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0923.M Tue Sep 24 11:13:35 2013 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7787.D
Acq On : 23 Sep 2013 17:40
Operator : XING
Sample : CCV100,CCV100,S,5g,0
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 24 11:14:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 24 09:22:13 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	1.085	1.125	-3.7	91	0.01
3	P	Chloromethane	0.992	0.916	7.7	92	0.01
4	C	Vinyl chloride	1.193	1.137	4.7	91	0.01
5	T	Bromomethane	0.684	0.646	5.6	95	0.00
6	T	Chloroethane	0.652	0.609	6.6	94	0.00
7	T	Trichlorofluoromethane	1.952	1.909	2.2	101	0.01
8	T	Acrolein	0.111	0.114	-2.7	121	0.01
9	MC	1,1-Dichloroethene	0.988	0.994	-0.6	98	0.00
10	T	Acetone	0.310	0.300	3.2	99	0.01
11	T	Carbon disulfide	3.432	3.393	1.1	99	0.00
12	T	Vinyl acetate	2.530	2.565	-1.4	97	0.00
13	T	Methylene chloride	1.101	1.014	7.9	101	0.00
14	T	Acrylonitrile	0.210	0.214	-1.9	125	0.00
15	T	tert-Butyl alcohol (TBA)	0.109	0.095	12.8	93	0.00
16	T	trans-1,2-Dichloroethene	0.745	0.697	6.4	102	0.00
17	T	Methyl tert-butyl ether (MT	2.536	2.359	7.0	99	0.00
18	P	1,1-Dichloroethane	1.525	1.436	5.8	100	0.00
19	T	Diisopropyl ether (DIPE)	2.335	2.474	-6.0	99	0.00
20	T	cis-1,2-Dichloroethene	0.709	0.699	1.4	101	0.00
21	T	2,2-Dichloropropane	1.306	1.296	0.8	102	0.01
22	T	2-Butanone (MEK)	0.360	0.337	6.4	98	0.00
23	T	Bromochloromethane	0.278	0.259	6.8	103	0.01
25	C	Chloroform	1.715	1.641	4.3	101	0.00
26	T	1,1,1-Trichloroethane	1.711	1.748	-2.2	100	0.00
27	T	Carbon tetrachloride	1.501	1.604	-6.9	100	0.00
28	T	1,1-Dichloropropene	1.171	1.254	-7.1	100	0.01
29	T	1,2-Dichloroethane (EDC)	1.625	1.584	2.5	100	0.00
30	S	1,2-Dichloroethane-d4	1.097	1.053	4.0	99	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
32	M	Benzene	2.204	2.198	0.3	103	0.01
33	M	Trichloroethene	0.598	0.637	-6.5	103	0.00
34	C	1,2-Dichloropropane	0.531	0.523	1.5	102	0.00
35	T	Dibromomethane	0.358	0.342	4.5	102	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	116	0.00
37	T	Bromodichloromethane	0.965	0.992	-2.8	102	0.00
38	T	2-Chloroethyl vinyl ether	0.260	0.277	-6.5	100	0.00
39	T	cis-1,3-Dichloropropene	0.865	0.971	-12.3	102	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.480	0.524	-9.2	99	0.00
41	S	Toluene-d8	1.456	1.497	-2.8	100	0.00
42	MC	Toluene	1.374	1.428	-3.9	103	0.00
43	T	trans-1,3-Dichloropropene	0.908	1.032	-13.7	103	0.00
44	T	1,1,2-Trichloroethane	0.348	0.337	3.2	102	0.00
45	T	Tetrachloroethene	0.559	0.614	-9.8	101	0.00
46	T	1,3-Dichloropropane	0.782	0.813	-4.0	102	0.00

47	T	2-Hexanone	0.377	0.413	-9.5	100	0.00
48	T	Dibromochloromethane	0.512	0.550	-7.4	101	0.00
49	T	1,2-Dibromoethane (EDB)	0.406	0.408	-0.5	103	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.01
51	MP	Chlorobenzene	1.535	1.457	5.1	103	0.00
52	T	1,1,1,2-Tetrachloroethane	0.563	0.568	-0.9	101	0.00
53	C	Ethylbenzene	3.021	3.320	-9.9	103	0.00
54	T	m,p-Xylene	1.038	1.145	-10.3	102	0.01
55	T	o-Xylene	1.011	1.077	-6.5	103	0.00
56	T	Styrene	1.680	1.823	-8.5	103	0.00
57	P	Bromoform	0.356	0.365	-2.5	101	0.00
58	T	Isopropylbenzene	3.022	3.365	-11.4	102	0.00
59	S	Bromofluorobenzene	0.825	0.831	-0.7	101	0.00
60	P	1,1,2,2-Tetrachloroethane	0.639	0.599	6.3	101	0.00
61	T	Bromobenzene	0.639	0.631	1.3	101	0.00
62	T	1,2,3-Trichloropropane	0.750	0.687	8.4	100	0.00
63	T	n-Propylbenzene	3.774	4.118	-9.1	101	0.00
64	T	2-Chlorotoluene	2.369	2.507	-5.8	101	0.00
65	T	1,3,5-Trimethylbenzene	2.817	3.110	-10.4	101	0.00
66	T	4-Chlorotoluene	3.060	3.187	-4.2	101	0.00
67	T	tert-Butylbenzene	1.951	2.236	-14.6	101	0.00
68	T	1,2,4-Trimethylbenzene	2.854	3.092	-8.3	101	0.00
69	T	sec-Butylbenzene	3.272	3.725	-13.8	102	0.00
70	T	1,3-Dichlorobenzene	1.283	1.280	0.2	102	0.00
71	T	4-Isopropyltoluene	2.701	2.982	-10.4	101	0.00
72	T	1,4-Dichlorobenzene	1.322	1.291	2.3	100	0.00
73	T	n-Butylbenzene	1.525	1.696	-11.2	101	0.00
74	T	1,2-Dichlorobenzene	1.233	1.228	0.4	100	0.00
75	T	1,2-Dibromo-3-chloropropane	0.168	0.154	8.3	96	0.00
76	T	1,2,4-Trichlorobenzene	0.782	0.837	-7.0	98	0.00
77	T	Hexachlorobutadiene	0.699	0.666	4.7	99	0.01
78	T	Naphthalene	1.543	1.589	-3.0	100	0.00
79	T	1,2,3-Trichlorobenzene	0.751	0.736	2.0	99	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.714	0.732	-2.5	98	0.00
81	T	Methyl acetate	0.442	0.394	10.9	98	0.00
82	T	Cyclohexane	1.008	1.008	0.0	100	0.00
83	T	Methylcyclohexane	0.933	1.010	-8.3	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0923.M Tue Sep 24 11:14:10 2013 RP1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E8813.D

Date Analyzed: 09/17/2013

Instrument ID: MSD_E

Time Analyzed: 15:13

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	294909		5.79		397588		6.60		356326		9.93	
	UPPER LIMIT	589818		6.29		795176		7.10		712652		10.43	
	LOWER LIMIT	147454.5		5.29		198794		6.10		178163		9.43	
	LAB SAMPLE ID												
01	ICC001	288722		5.79		391363		6.60		348315		9.93	
02	ICC002	284345		5.79		385905		6.60		344950		9.93	
03	ICC005	277482		5.79		377805		6.60		332807		9.93	
04	ICC020	286387		5.79		388724		6.60		344610		9.93	
05	ICC150	299138		5.79		402093		6.60		363805		9.93	
06	ICC200	313262		5.78		426021		6.60		386987		9.93	
07	ICV100	306153		5.79		416525		6.60		374042		9.93	
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E8921.D

Date Analyzed: 09/20/2013

Instrument ID: MSD_E

Time Analyzed: 1:25

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	231025	5.79	309745	6.60	287580	9.93
	UPPER LIMIT	462050	6.29	619490	7.10	575160	10.43
	LOWER LIMIT	115512.5	5.29	154872.5	6.10	143790	9.43
	LAB SAMPLE ID						
01	BLKA091913b	215318	5.79	291791	6.60	263403	9.93
02	09198-005	220846	5.79	298513	6.60	271694	9.93
03	09198-006	223008	5.79	303953	6.60	272036	9.93
04	09198-007	224109	5.79	304160	6.60	270891	9.93
05	09198-009	226117	5.79	308860	6.60	276997	9.93
06	09234-001	216517	5.79	294294	6.60	268892	9.93
07	09234-017	212924	5.79	291314	6.61	263303	9.93
08	09234-018	217908	5.79	302227	6.60	268738	9.93
09	09234-019	219339	5.79	300569	6.61	266637	9.93
10	09187-005	211508	5.79	290288	6.60	265091	9.93
11	09187-006	208814	5.79	284580	6.60	258674	9.93
12	09187-001	204441	5.79	278207	6.60	251609	9.92
13	09187-005	207926	5.79	285021	6.60	256232	9.93
14	TRIP_BLANK	210864	5.79	288884	6.60	261123	9.92
15	09244-002	203892	5.79	278238	6.60	253800	9.93
16	09187-003	216180	5.79	296537	6.60	270367	9.92
17	LCSA130919b	274798	5.79	374963	6.60	336619	9.93
18	09244-002MS	273270	5.79	379305	6.60	340093	9.93
19	09244-002MSD	275842	5.79	379211	6.60	336514	9.93
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F7778.D

Instrument ID: MSD_F

Date Analyzed: 09/23/2013

Time Analyzed: 13:08

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	596682	6.07	716012	6.89	714264	10.24
	UPPER LIMIT	1193364	6.57	1432024	7.39	1428528	10.74
	LOWER LIMIT	298341	5.57	358006	6.39	357132	9.74
	LAB SAMPLE ID						
01	ICC2	449638	6.08	585768	6.89	544186	10.24
02	ICC20	507582	6.08	643773	6.89	610584	10.24
03	ICC200	696274	6.07	835360	6.89	813504	10.24
04	ICC150	750120	6.07	919948	6.89	885733	10.23
05	ICC1	484202	6.08	645138	6.89	624452	10.24
06	ICC5	486706	6.07	628095	6.89	602111	10.23
07	ICV100	575328	6.07	704853	6.89	707516	10.24
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F7787.D

Date Analyzed: 09/23/2013

Instrument ID: MSD_F

Time Analyzed: 17:40

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	579216	6.07	717530	6.89	721221	10.24
	UPPER LIMIT	1158432	6.57	1435060	7.39	1442442	10.74
	LOWER LIMIT	289608	5.57	358765	6.39	360610.5	9.74
	LAB SAMPLE ID						
01	BLKS130923-01	483671	6.08	616568	6.89	575574	10.24
02	09247-006	479651	6.08	628136	6.89	584548	10.23
03	LCSS130923-01	527735	6.07	655790	6.89	682248	10.23
04	09262-001MS	593496	6.07	727268	6.89	737729	10.23
05	09262-001MSD	651380	6.07	806938	6.89	787912	10.24
06	09308-001	622667	6.08	812507	6.89	729515	10.24
07	09308-002	580699	6.08	757382	6.89	688641	10.24
08	09308-003	550426	6.08	728446	6.89	658768	10.23
09	09308-004	501700	6.08	691768	6.89	628491	10.24
10	09308-005	514650	6.08	690247	6.89	641332	10.24
11	09308-006	470715	6.08	642216	6.89	624008	10.24
12	09262-001	450065	6.08	613449	6.89	587171	10.24
13	09262-002	462730	6.08	642964	6.89	616609	10.24
14	09263-001	444916	6.08	614020	6.89	596494	10.24
15	09263-002	415557	6.08	568352	6.89	543682	10.24
16	09263-003	442790	6.08	640419	6.89	612858	10.24
17	09263-004	421627	6.08	600855	6.89	582561	10.24
18	09263-005	430991	6.08	589734	6.89	546220	10.24
19	08883-001	405941	6.08	565581	6.89	547136	10.24
20	09198-003	412681	6.08	575125	6.89	555141	10.24
21	09215-001	478265	6.08	648713	6.89	601521	10.24
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7808.D
Acq On : 24 Sep 2013 4:18
Operator : XING
Sample : AOC-12-3/1.5-2,09198-003,S,5.4g,19.9
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 24 10:29:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 24 09:22:13 2013
Response via : Initial Calibration

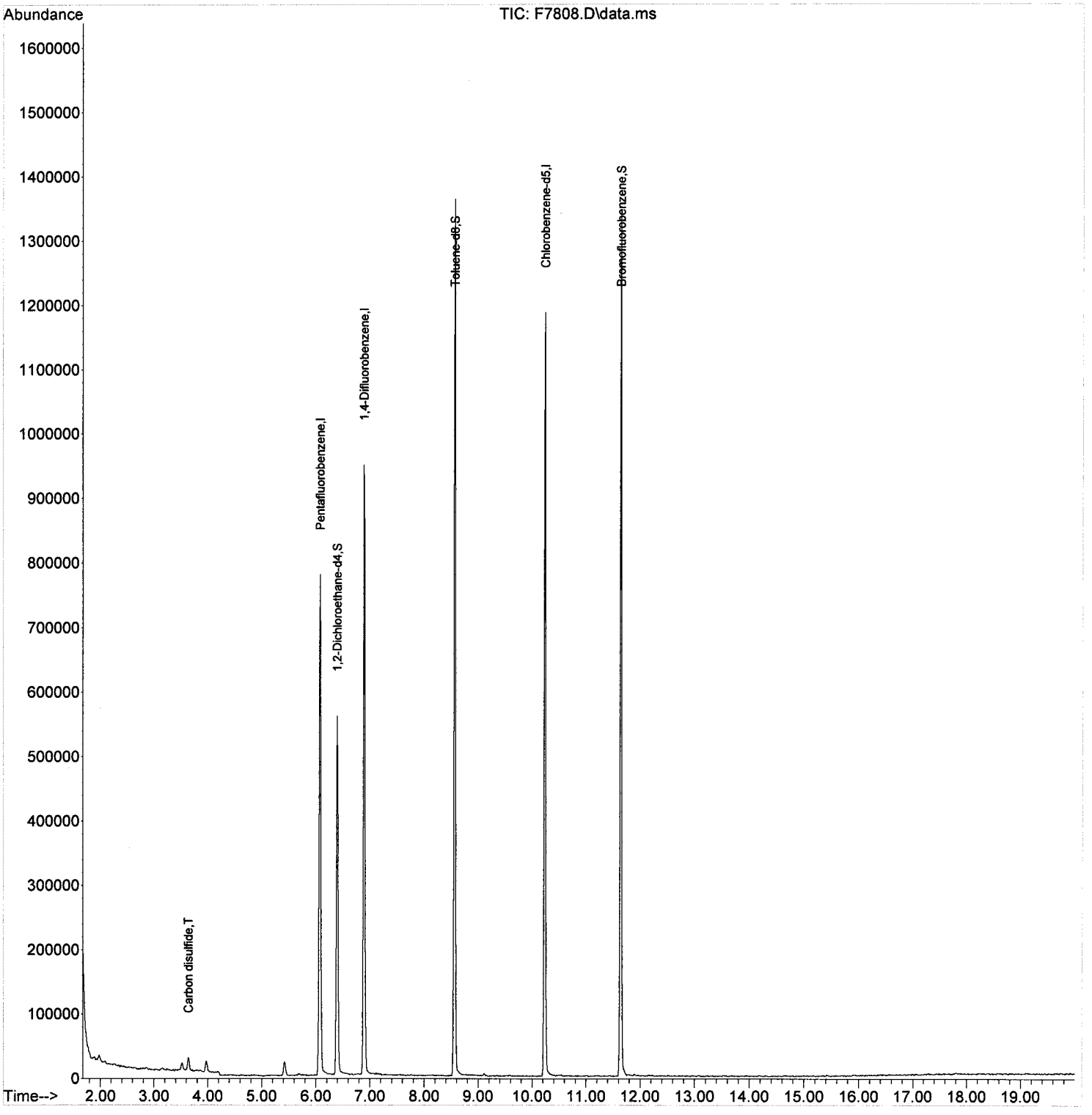
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	412681	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	575125	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	555141	50.00	UG	0.01
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	513103	56.68	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 113.36%			
41) Toluene-d8	8.563	98	821189	49.03	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 98.06%			
59) Bromofluorobenzene	11.639	95	431939	47.18	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 94.36%			
Target Compounds						Qvalue
11) Carbon disulfide	3.640	76	37198	1.31	UG	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7808.D
Acq On : 24 Sep 2013 4:18
Operator : XING
Sample : AOC-12-3/1.5-2,09198-003,S,5.4g,19.9
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 24 10:29:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 24 09:22:13 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7808.D
Acq On : 24 Sep 2013 4:18
Operator : XING
Sample : AOC-12-3/1.5-2,09198-003,S,5.4g,19.9
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7808.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.528	180	184	189	rVB3	10999	28598	1.16%	0.242%
2	3.640	191	195	204	rVB	20347	50489	2.05%	0.428%
3	3.965	223	227	237	rVB	17447	50559	2.05%	0.428%
4	5.426	365	371	377	rBV	21345	59126	2.40%	0.501%
5	6.076	424	435	451	rBV	777582	1627267	65.95%	13.786%
6	6.391	460	466	489	rBV	557088	1187179	48.11%	10.058%
7	6.888	508	515	529	rBV	945996	1824662	73.95%	15.458%
8	8.563	674	680	696	rBV	1360828	2467529	100.00%	20.905%
9	10.238	839	845	860	rBV	1185533	2258401	91.52%	19.133%
10	11.639	975	983	994	rBV	1338851	2249884	91.18%	19.061%

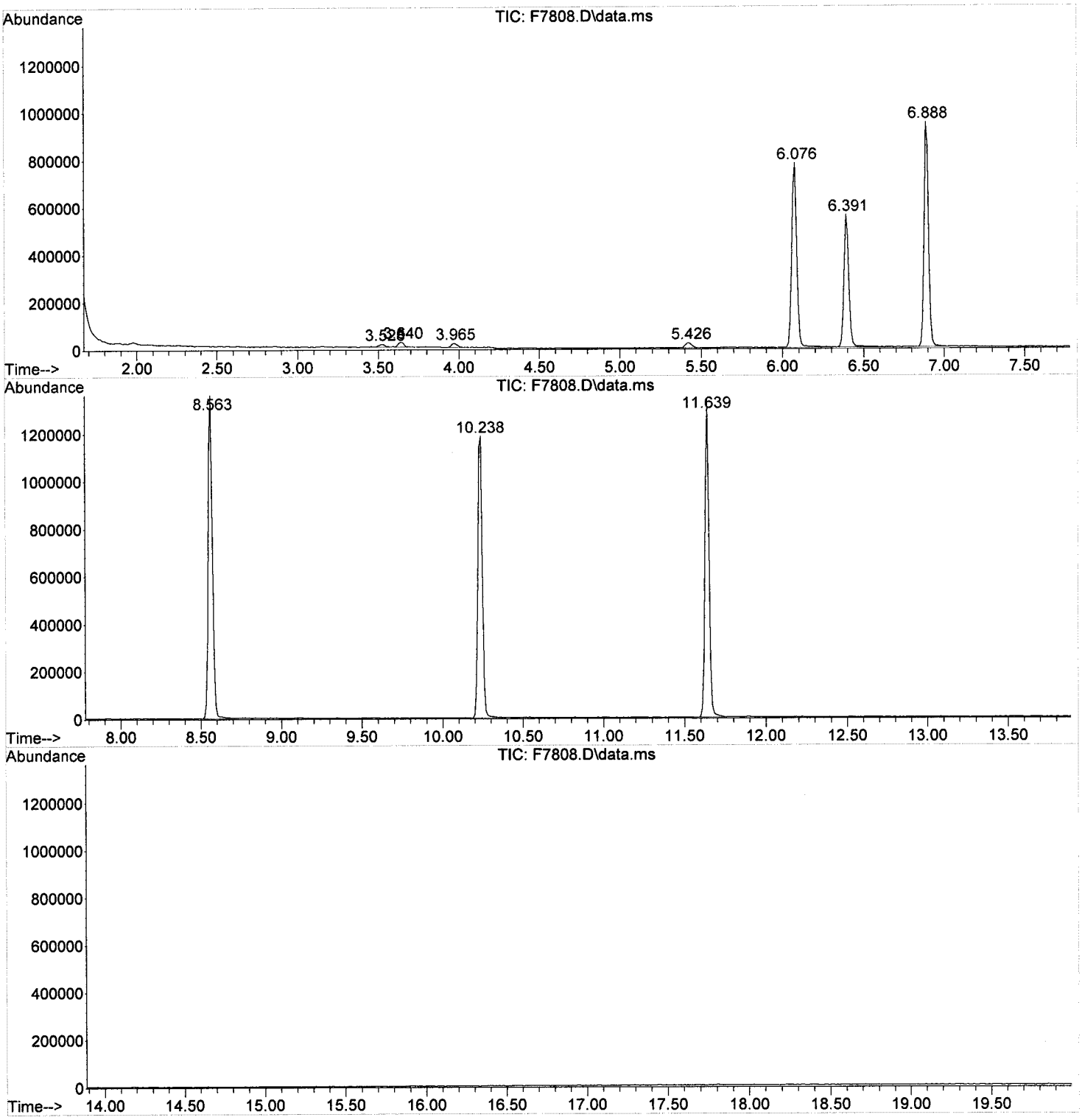
Sum of corrected areas: 11803694

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7808.D
Acq On : 24 Sep 2013 4:18
Operator : XING
Sample : AOC-12-3/1.5-2,09198-003,S,5.4g,19.9
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8925.D
Acq On : 20 Sep 2013 3:15
Operator : BARBARA
Sample : AOC-7-2,09198-005,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 20 14:32:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.79	168	220846	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.60	114	298513	50.00	UG	0.00
50) Chlorobenzene-d5	9.93	117	271694	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.11	65	168404	56.10	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 112.20%			
41) Toluene-d8	8.26	98	367978	49.88	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.76%			
59) Bromofluorobenzene	11.33	95	171705	51.58	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 103.16%			

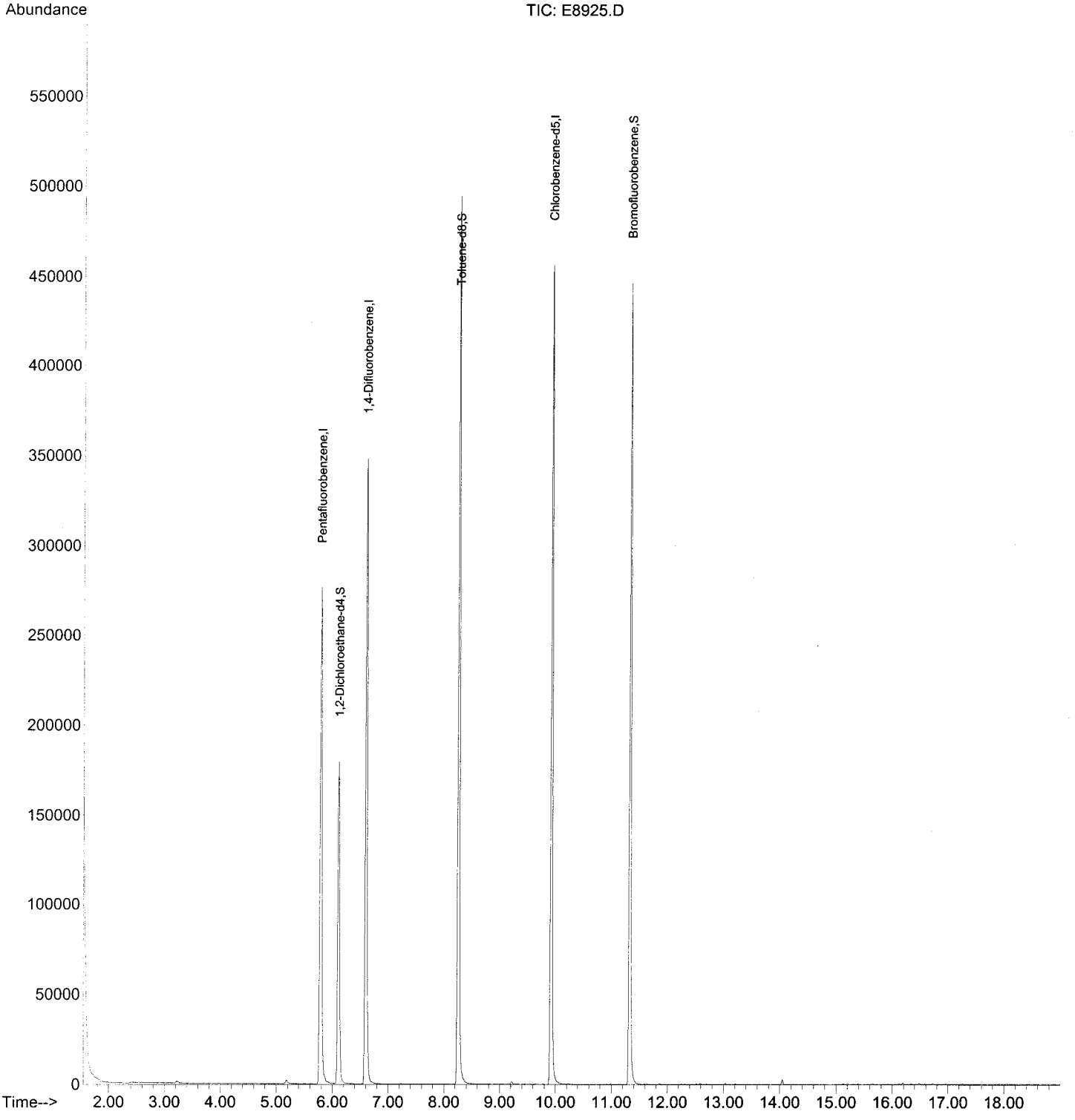
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8925.D
Acq On : 20 Sep 2013 3:15
Operator : BARBARA
Sample : AOC-7-2,09198-005,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 20 14:32:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8925.D
Acq On : 20 Sep 2013 3:15
Operator : BARBARA
Sample : AOC-7-2,09198-005,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 24 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\E8091713.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.789	799	811	851	rBV	276604	678402	65.75%	14.578%
2	6.109	858	872	904	rVB	179460	428294	41.51%	9.204%
3	6.602	954	966	996	rBV	348387	765433	74.19%	16.448%
4	8.258	1271	1282	1316	rBV	494631	1031782	100.00%	22.172%
5	9.926	1589	1600	1639	rBV	456661	905116	87.72%	19.450%
6	11.326	1857	1867	1898	rBV	446839	844502	81.85%	18.148%

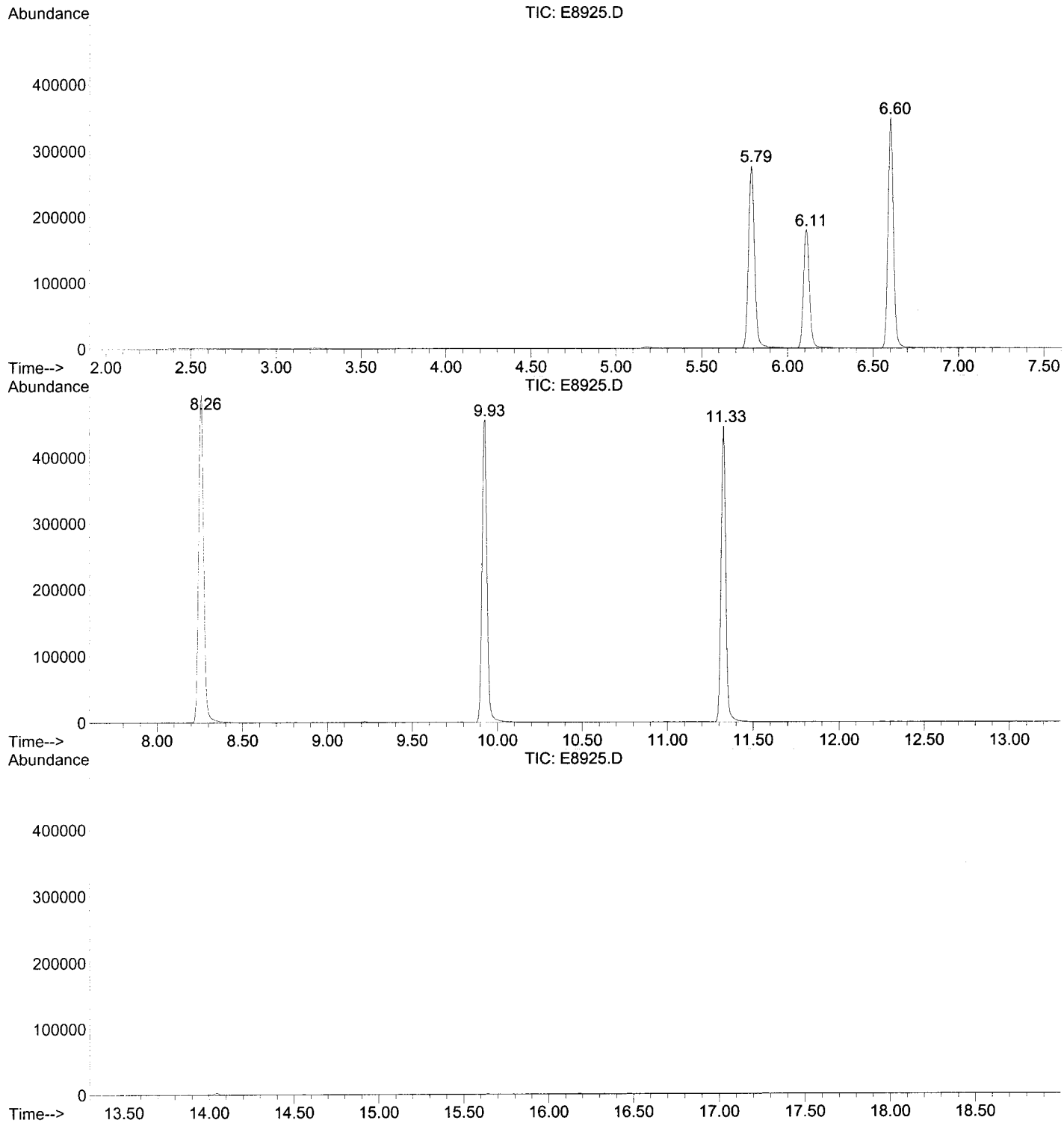
Sum of corrected areas: 4653529

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8925.D
Acq On : 20 Sep 2013 3:15
Operator : BARBARA
Sample : AOC-7-2,09198-005,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8926.D
Acq On : 20 Sep 2013 3:43
Operator : BARBARA
Sample : AOC-7-4,09198-006,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 20 14:32:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.79	168	223008	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.60	114	303953	50.00	UG	0.00
50) Chlorobenzene-d5	9.93	117	272036	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.11	65	169207	55.82	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 111.64%			
41) Toluene-d8	8.26	98	370257	49.30	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.60%			
59) Bromofluorobenzene	11.33	95	170148	51.04	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 102.08%			

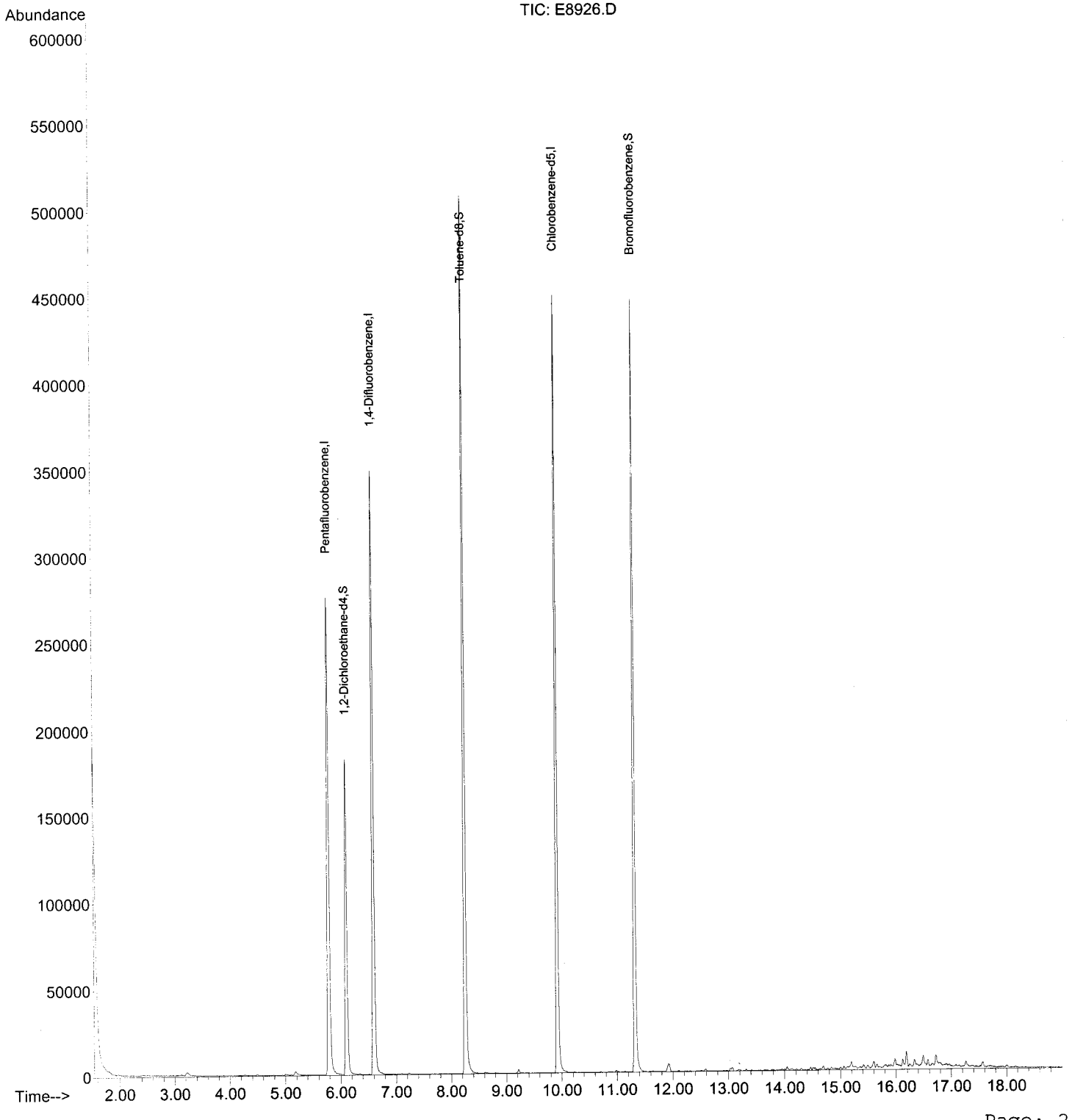
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8926.D
Acq On : 20 Sep 2013 3:43
Operator : BARBARA
Sample : AOC-7-4,09198-006,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 20 14:32:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8926.D
Acq On : 20 Sep 2013 3:43
Operator : BARBARA
Sample : AOC-7-4,09198-006,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 25 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\E8091713.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.789	796	811	847	rBV	276115	681610	66.12%	14.390%
2	6.109	861	872	912	rVB	182654	433698	42.07%	9.156%
3	6.602	955	966	1007	rBV	349090	776351	75.31%	16.391%
4	8.258	1266	1282	1318	rBV	508121	1030903	100.00%	21.765%
5	9.926	1587	1600	1630	rBV	449976	905434	87.83%	19.116%
6	11.326	1855	1867	1898	rBV	447304	839415	81.43%	17.722%
7	11.923	1969	1981	1995	rVB9	4683	14322	1.39%	0.302%
8	15.195	2595	2605	2626	rVB4	4029	12092	1.17%	0.255%
9	16.186	2789	2794	2800	rVB2	8396	13767	1.34%	0.291%
10	16.490	2843	2852	2862	rVB2	5873	14429	1.40%	0.305%
11	16.721	2889	2896	2906	rBV8	6174	14566	1.41%	0.308%

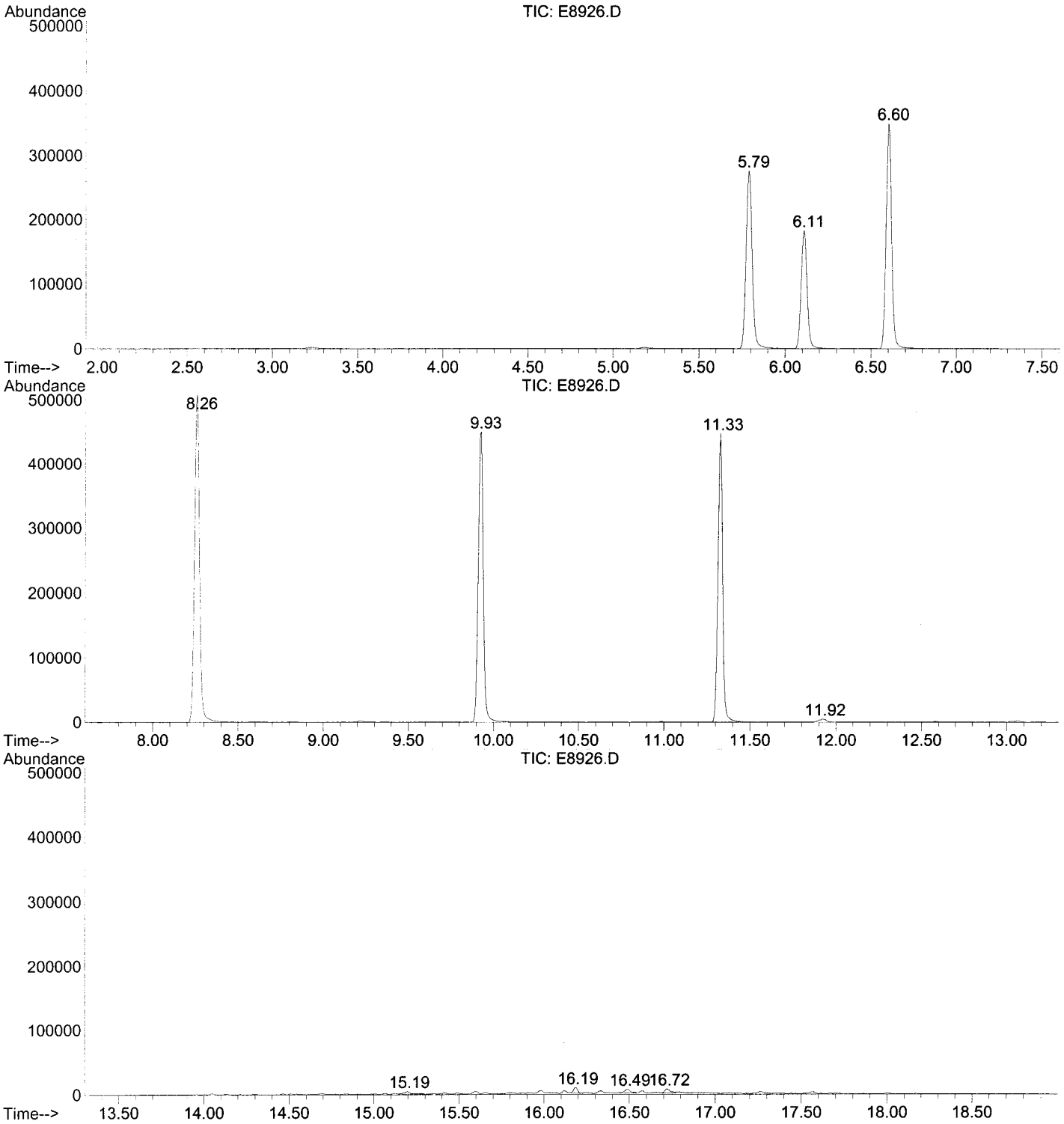
Sum of corrected areas: 4736587

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8926.D
Acq On : 20 Sep 2013 3:43
Operator : BARBARA
Sample : AOC-7-4,09198-006,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8927.D
Acq On : 20 Sep 2013 4:10
Operator : BARBARA
Sample : EX._WELL,09198-007,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 20 14:33:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration

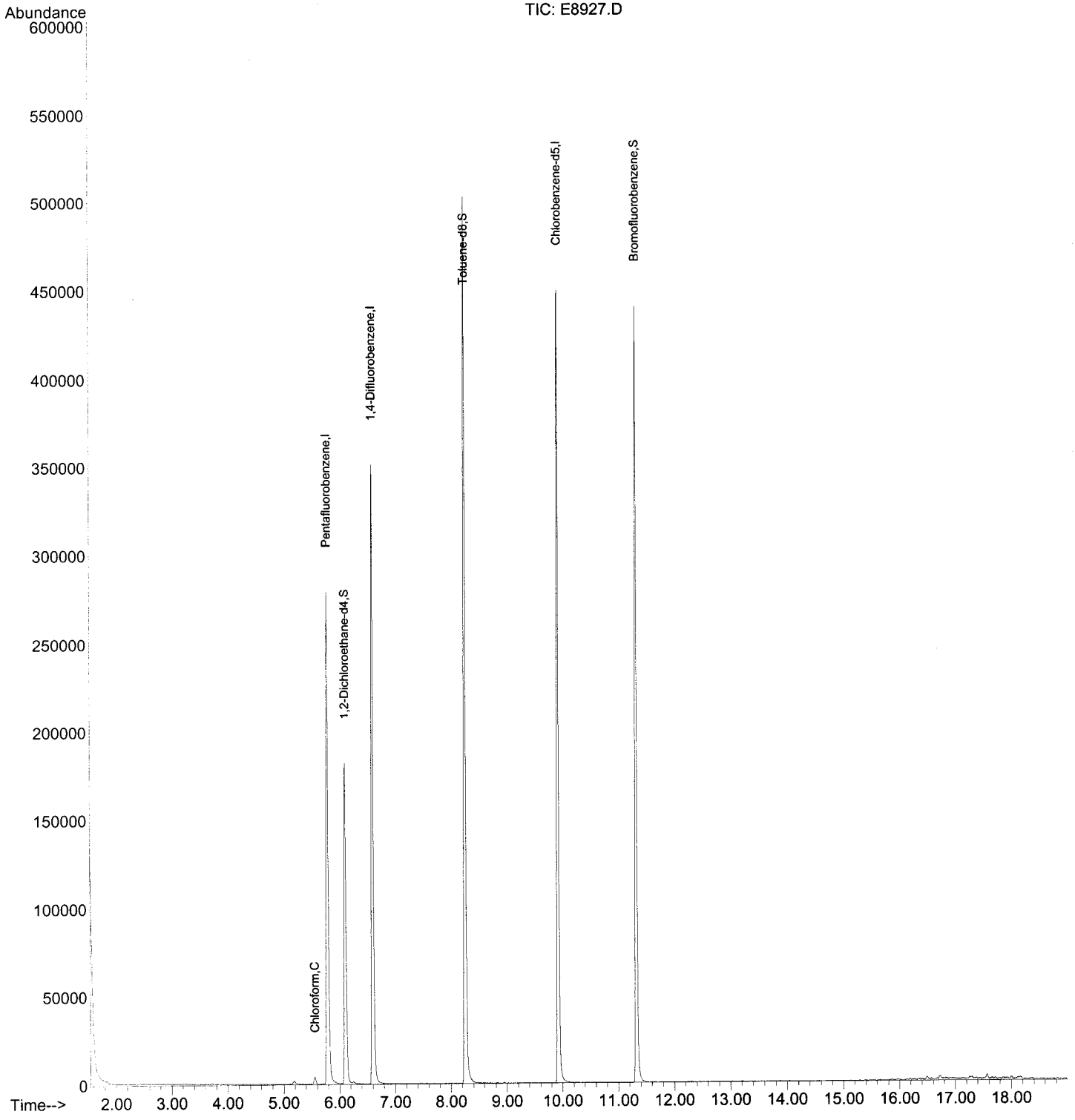
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.79	168	224109	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.60	114	304160	50.00	UG	0.00
50) Chlorobenzene-d5	9.93	117	270891	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.11	65	167749	55.07	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 110.14%			
41) Toluene-d8	8.26	98	366756	48.80	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.60%			
59) Bromofluorobenzene	11.33	95	168545	50.78	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 101.56%			
Target Compounds						Qvalue
25) Chloroform	5.56	83	4134	1.22	UG	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8927.D
Acq On : 20 Sep 2013 4:10
Operator : BARBARA
Sample : EX._WELL,09198-007,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 20 14:33:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8927.D
Acq On : 20 Sep 2013 4:10
Operator : BARBARA
Sample : EX._WELL,09198-007,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 26 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\E8091713.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.558	756	767	785	rVB3	4005	10287	1.00%	0.222%
2	5.789	796	811	857	rBV	278899	679533	66.30%	14.646%
3	6.109	861	872	894	rBV	181541	425820	41.55%	9.178%
4	6.602	954	966	1009	rBV	350808	772177	75.34%	16.643%
5	8.258	1269	1282	1318	rBV	502782	1024958	100.00%	22.091%
6	9.926	1589	1600	1635	rBV	449288	895106	87.33%	19.292%
7	11.326	1855	1867	1906	rBV	440045	831865	81.16%	17.929%

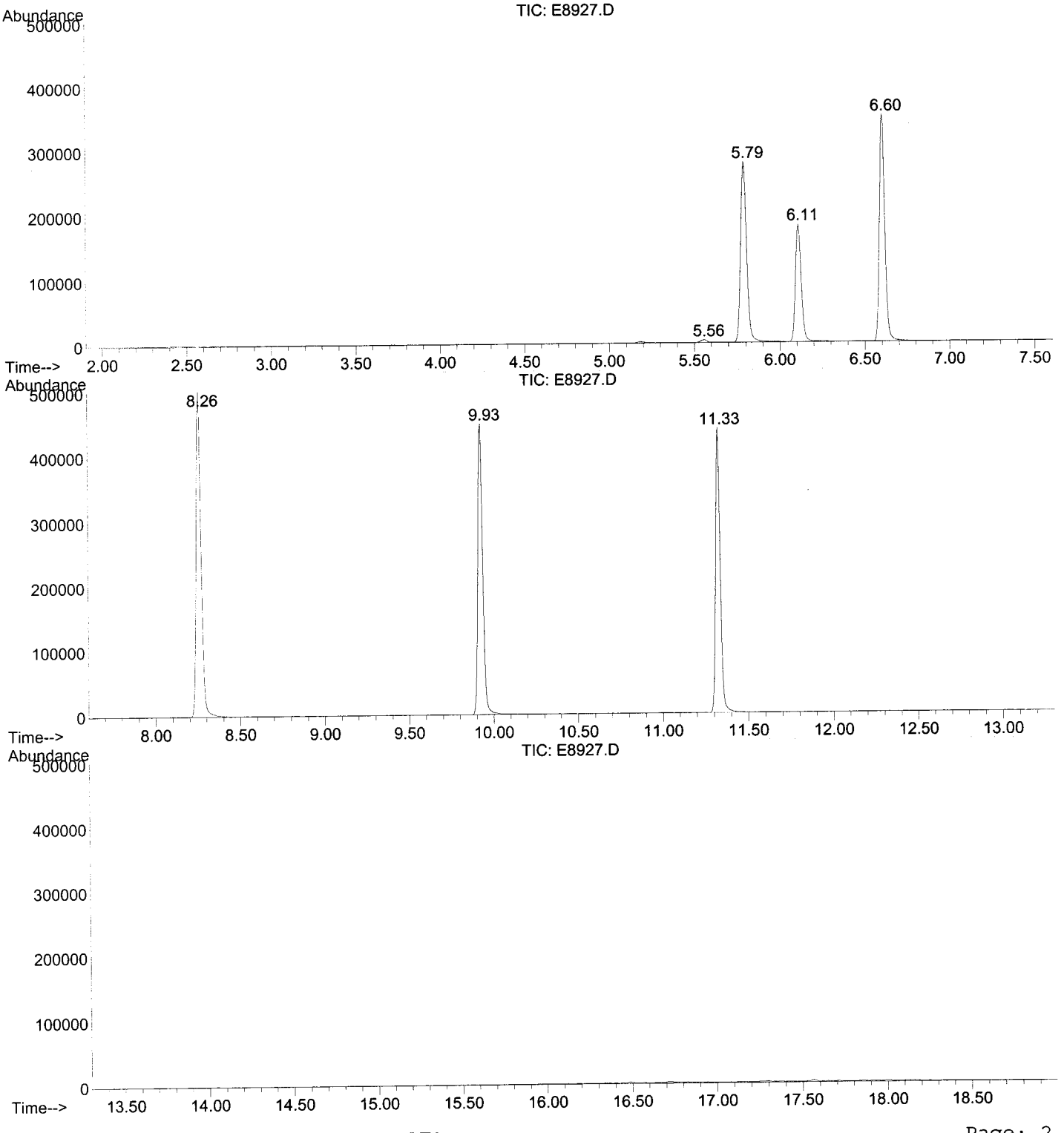
Sum of corrected areas: 4639746

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8927.D
Acq On : 20 Sep 2013 4:10
Operator : BARBARA
Sample : EX._WELL,09198-007,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8928.D
Acq On : 20 Sep 2013 4:38
Operator : BARBARA
Sample : TB,09198-009,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 20 14:34:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.79	168	226117	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.60	114	308860	50.00	UG	0.00
50) Chlorobenzene-d5	9.93	117	276997	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.11	65	169905	55.28	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 110.56%			
41) Toluene-d8	8.26	98	377715	49.49	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.98%			
59) Bromofluorobenzene	11.33	95	172112	50.71	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 101.42%			

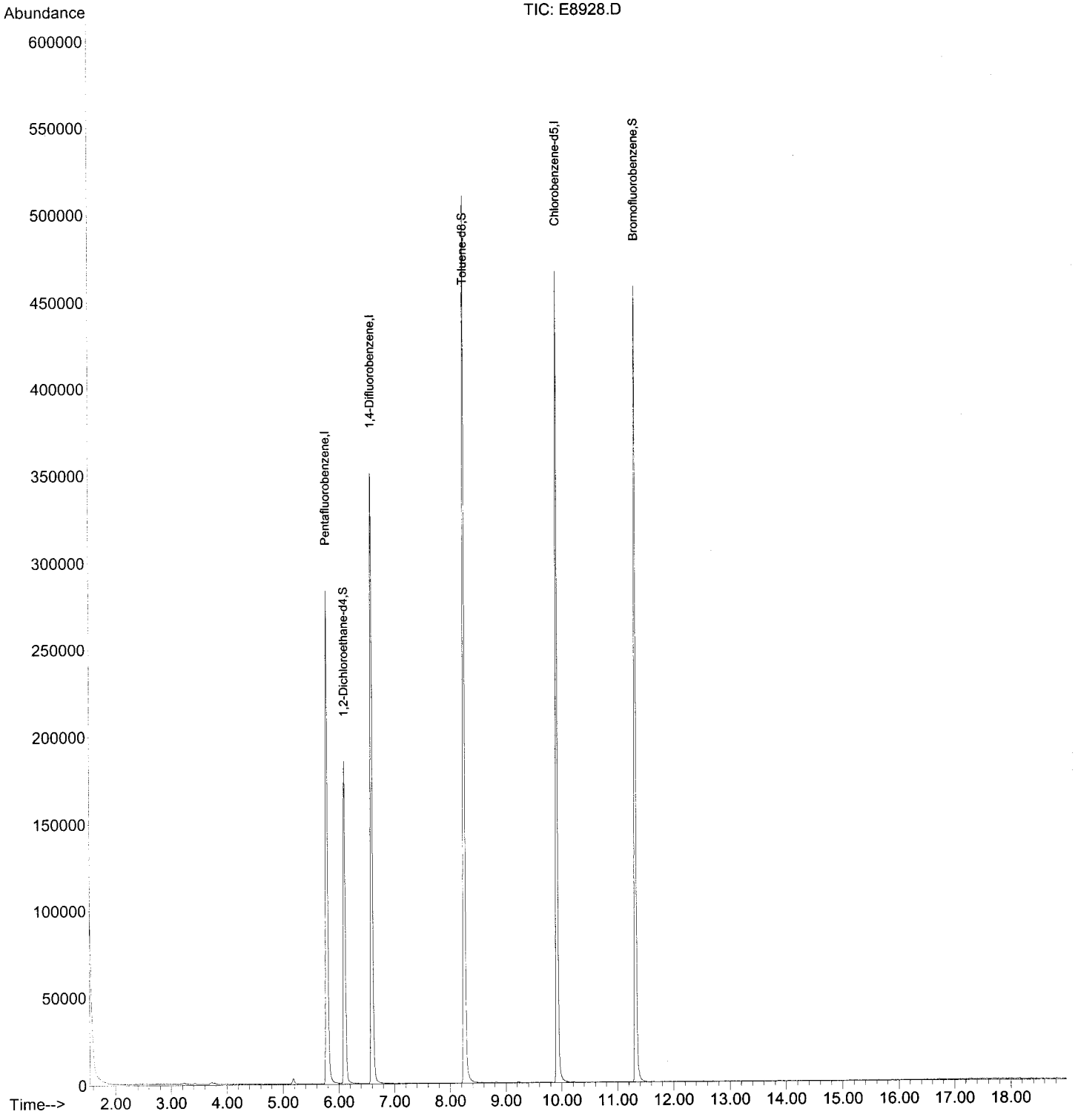
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8928.D
Acq On : 20 Sep 2013 4:38
Operator : BARBARA
Sample : TB,09198-009,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 20 14:34:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8928.D
Acq On : 20 Sep 2013 4:38
Operator : BARBARA
Sample : TB,09198-009,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 27 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\E8091713.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.789	800	811	842	rBV	283936	686778	65.66%	14.588%
2	6.109	858	872	905	rVB	185105	432579	41.35%	9.188%
3	6.601	953	966	997	rBV	350717	783192	74.87%	16.636%
4	8.258	1270	1282	1318	rBV	509719	1046038	100.00%	22.219%
5	9.926	1587	1600	1630	rBV	466644	916753	87.64%	19.473%
6	11.325	1857	1867	1896	rBV	457912	842496	80.54%	17.896%

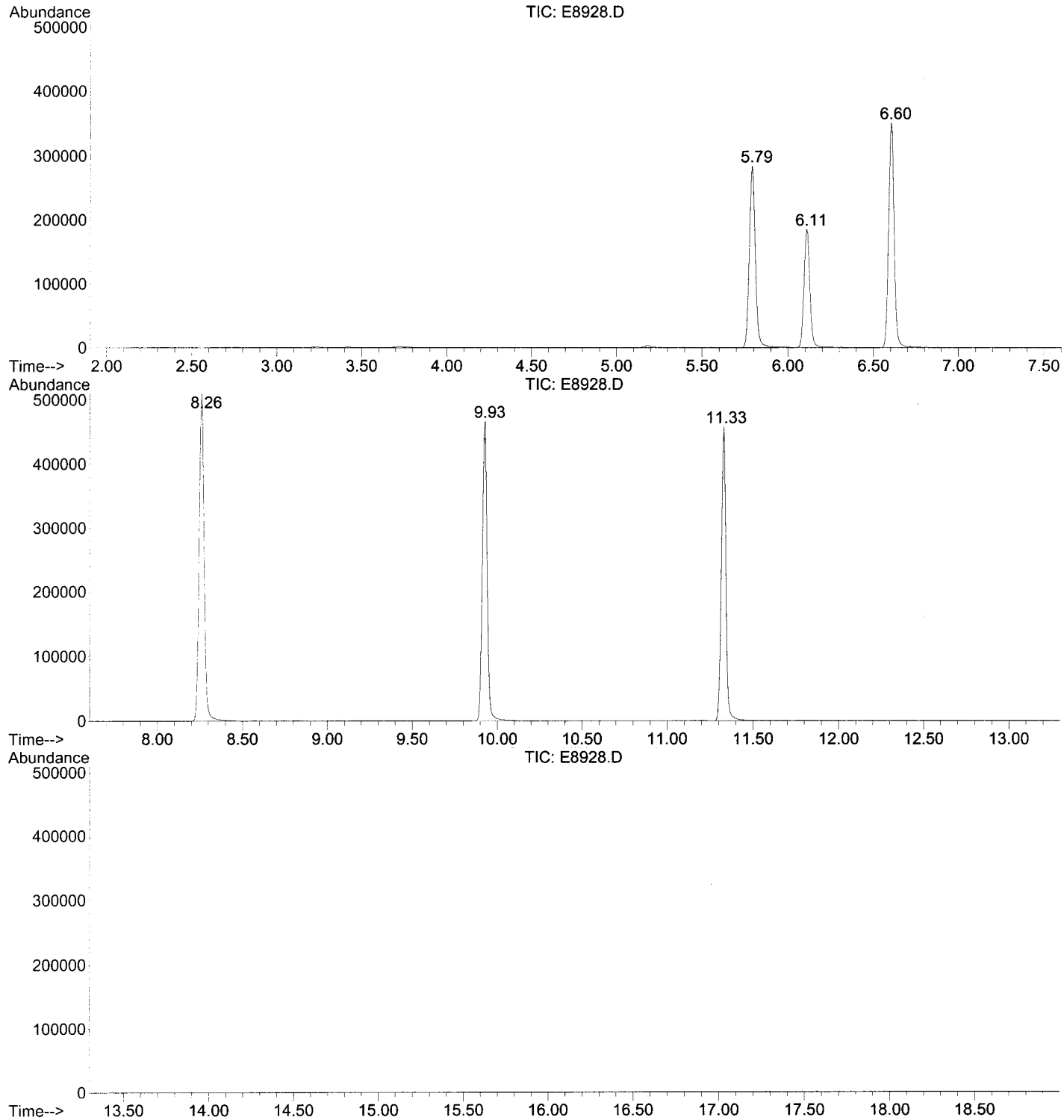
Sum of corrected areas: 4707836

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8928.D
Acq On : 20 Sep 2013 4:38
Operator : BARBARA
Sample : TB,09198-009,A,5mL,100
Misc : EWMA/50_DIVISION_A,09/18/13,09/18/13,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA091913b
Client ID: BLKA091913b
Date Received: NA
Date Analyzed: 09/20/2013
Data file: E8924.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.500
Chloromethane	ND		1.00	0.270
Vinyl chloride	ND		1.00	0.240
Bromomethane	ND		1.00	0.360
Chloroethane	ND		1.00	0.260
Trichlorofluoromethane	ND		1.00	0.490
1,1-Dichloroethene	ND		1.00	0.350
Acetone	ND		2.00	0.210
Carbon disulfide	ND		1.00	0.320
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.300
Methyl tert-butyl ether (MTBE)	ND		1.00	0.320
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.200
2-Butanone (MEK)	ND		1.00	0.240
Bromochloromethane	ND		1.00	0.400
Chloroform	ND		1.00	0.210
1,1,1-Trichloroethane	ND		1.00	0.250
Carbon tetrachloride	ND		1.00	0.350
1,2-Dichloroethane (EDC)	ND		1.00	0.240
Benzene	ND		1.00	0.230
Trichloroethene	ND		1.00	0.270
1,2-Dichloropropane	ND		1.00	0.240
1,4-Dioxane	ND		200	26.0
Bromodichloromethane	ND		1.00	0.260
cis-1,3-Dichloropropene	ND		1.00	0.210
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.230

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA091913b
Client ID: BLKA091913b
Date Received: NA
Date Analyzed: 09/20/2013
Data file: E8924.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.250
trans-1,3-Dichloropropene	ND		1.00	0.210
1,1,2-Trichloroethane	ND		1.00	0.250
Tetrachloroethene	ND		1.00	0.360
2-Hexanone	ND		1.00	0.240
Dibromochloromethane	ND		1.00	0.220
1,2-Dibromoethane (EDB)	ND		1.00	0.230
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.210
Styrene	ND		1.00	0.220
Bromoform	ND		1.00	0.250
Isopropylbenzene	ND		1.00	0.210
1,1,2,2-Tetrachloroethane	ND		1.00	0.280
1,3-Dichlorobenzene	ND		1.00	0.260
1,4-Dichlorobenzene	ND		1.00	0.310
1,2-Dichlorobenzene	ND		1.00	0.300
1,2-Dibromo-3-chloropropane	ND		1.00	0.280
1,2,4-Trichlorobenzene	ND		1.00	0.250
1,2,3-Trichlorobenzene	ND		1.00	0.330
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.430
Methyl acetate	ND		1.00	0.260
Cyclohexane	ND		5.00	0.350
Methylcyclohexane	ND		1.00	0.320
Total Xylenes	ND		2.00	0.780
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.210

Total Target Compounds (52): 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA091913b
Client ID: BLKA091913b
Date Received: NA
Date Analyzed: 09/20/2013
Data file: E8924.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8924.D
Acq On : 20 Sep 2013 2:47
Operator : BARBARA
Sample : BLKA091913b,BLKA091913b,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 20 14:26:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.79	168	215318	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.60	114	291791	50.00	UG	0.00
50) Chlorobenzene-d5	9.93	117	263403	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.11	65	162012	55.35	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 110.70%			
41) Toluene-d8	8.26	98	355898	49.36	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.72%			
59) Bromofluorobenzene	11.33	95	163787	50.75	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 101.50%			

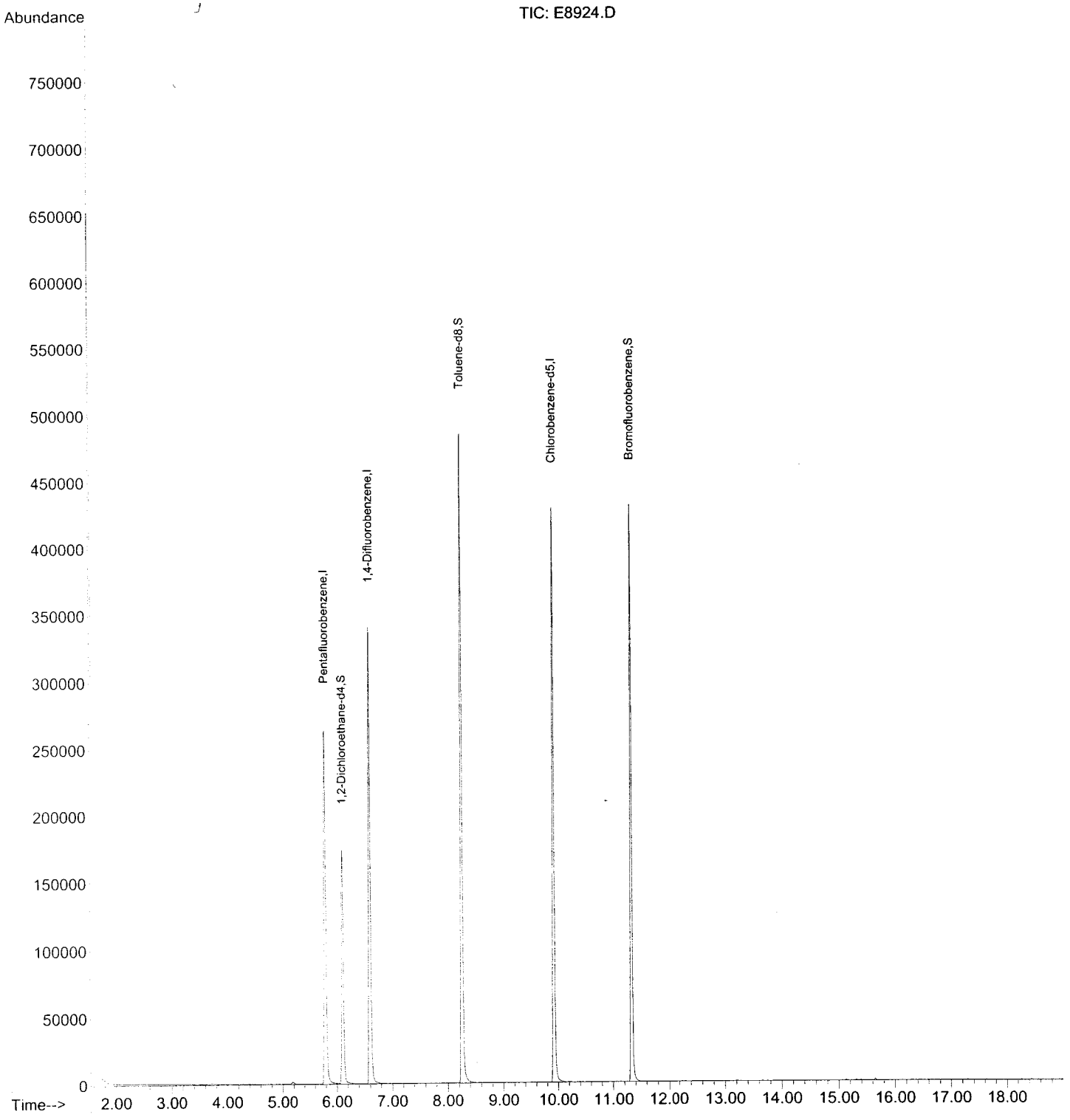
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8924.D
Acq On : 20 Sep 2013 2:47
Operator : BARBARA
Sample : BLKA091913b,BLKA091913b,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 20 14:26:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Sep 17 16:33:26 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8924.D
Acq On : 20 Sep 2013 2:47
Operator : BARBARA
Sample : BLKA091913b,BLKA091913b,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\E8091713.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.789	799	811	837	rBV	265478	650975	65.71%	14.504%
2	6.109	861	872	901	rBV	174754	416042	42.00%	9.270%
3	6.602	954	966	1009	rBV	340425	744878	75.19%	16.597%
4	8.258	1271	1282	1310	rBV	485179	990628	100.00%	22.072%
5	9.920	1588	1599	1637	rBV	429512	873675	88.19%	19.466%
6	11.326	1857	1867	1898	rBV	431446	811912	81.96%	18.090%

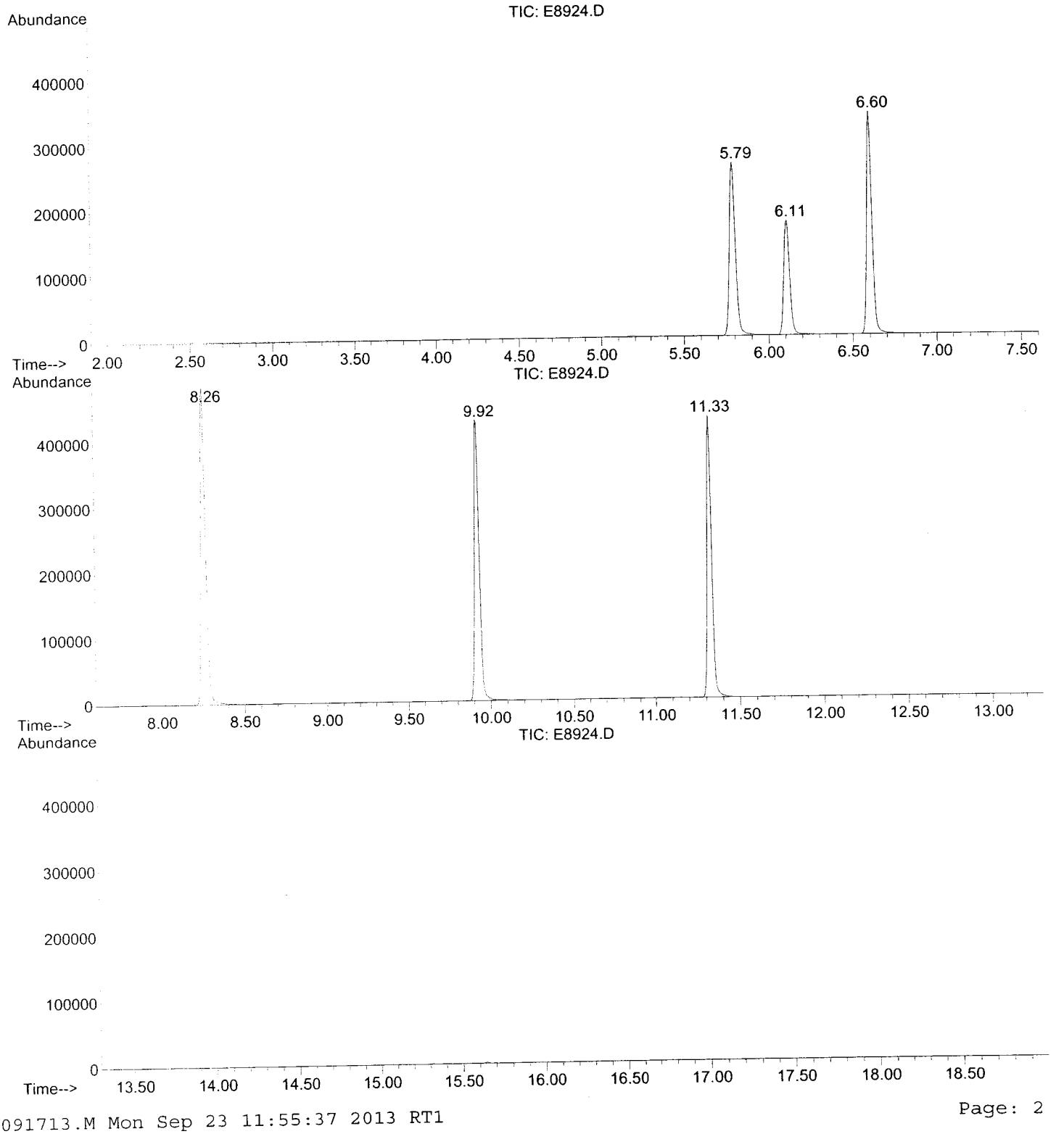
Sum of corrected areas: 4488110

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : E8924.D
Acq On : 20 Sep 2013 2:47
Operator : BARBARA
Sample : BLKA091913b,BLKA091913b,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8091713.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130923-01
Client ID: BLKS130923-01
Date Received:
Date Analyzed: 09/23/2013
Data file: F7789.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.00056
Chloromethane	ND		0.001	0.00029
Vinyl chloride	ND		0.001	0.00039
Bromomethane	ND		0.001	0.00048
Chloroethane	ND		0.001	0.00037
Trichlorofluoromethane	ND		0.001	0.0003
1,1-Dichloroethene	ND		0.001	0.00041
Acetone	ND		0.005	0.00055
Carbon disulfide	ND		0.001	0.00031
Methylene chloride	ND		0.002	0.00198
trans-1,2-Dichloroethene	ND		0.001	0.00034
Methyl tert-butyl ether (MTBE)	ND		0.001	0.00025
1,1-Dichloroethane	ND		0.001	0.0003
cis-1,2-Dichloroethene	ND		0.001	0.00028
2-Butanone (MEK)	ND		0.001	0.00029
Bromochloromethane	ND		0.001	0.00025
Chloroform	ND		0.001	0.00027
1,1,1-Trichloroethane	ND		0.001	0.00026
Carbon tetrachloride	ND		0.001	0.00025
1,2-Dichloroethane (EDC)	ND		0.001	0.00022
Benzene	ND		0.001	0.00027
Trichloroethene	ND		0.001	0.00034
1,2-Dichloropropane	ND		0.001	0.00026
1,4-Dioxane	ND		0.200	0.011
Bromodichloromethane	ND		0.001	0.00021
cis-1,3-Dichloropropene	ND		0.001	0.00021
4-Methyl-2-pentanone (MIBK)	ND		0.001	0.00021

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS130923-01
Client ID: BLKS130923-01
Date Received:
Date Analyzed: 09/23/2013
Data file: F7789.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.00025
trans-1,3-Dichloropropene	ND		0.001	0.00022
1,1,2-Trichloroethane	ND		0.001	0.00021
Tetrachloroethene	ND		0.001	0.00025
2-Hexanone	ND		0.001	0.00027
Dibromochloromethane	ND		0.001	0.00021
1,2-Dibromoethane (EDB)	ND		0.001	0.0002
Chlorobenzene	ND		0.001	0.00028
Ethylbenzene	ND		0.001	0.00028
Total Xylenes	ND		0.002	0.0008
Styrene	ND		0.001	0.00022
Bromoform	ND		0.001	0.00024
Isopropylbenzene	ND		0.002	0.00029
1,1,2,2-Tetrachloroethane	ND		0.001	0.00023
1,3-Dichlorobenzene	ND		0.001	0.00024
1,4-Dichlorobenzene	ND		0.001	0.0002
1,2-Dichlorobenzene	ND		0.001	0.00028
1,2-Dibromo-3-chloropropane	ND		0.001	0.0002
1,2,4-Trichlorobenzene	ND		0.001	0.00026
1,2,3-Trichlorobenzene	ND		0.001	0.00032
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.00037
Methyl acetate	ND		0.001	0.00022
Cyclohexane	ND		0.005	0.00039
Methylcyclohexane	ND		0.001	0.00036
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.00022

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130923-01
Client ID: BLKS130923-01
Date Received:
Date Analyzed: 09/23/2013
Date File: F7789.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7789.D
Acq On : 23 Sep 2013 18:41
Operator : XING
Sample : BLKS130923-01,BLKS130923-01,S,5g,0
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 24 09:28:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 24 09:22:13 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.076	168	483671	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.888	114	616568	50.00	UG	0.00
50) Chlorobenzene-d5	10.238	117	575574	50.00	UG	0.01
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.391	65	553374	52.16	UG	0.00
Spiked Amount 50.000	Range 37 - 158		Recovery = 104.32%			
41) Toluene-d8	8.563	98	851134	47.40	UG	0.00
Spiked Amount 50.000	Range 45 - 154		Recovery = 94.80%			
59) Bromofluorobenzene	11.639	95	439860	46.34	UG	0.00
Spiked Amount 50.000	Range 46 - 150		Recovery = 92.68%			

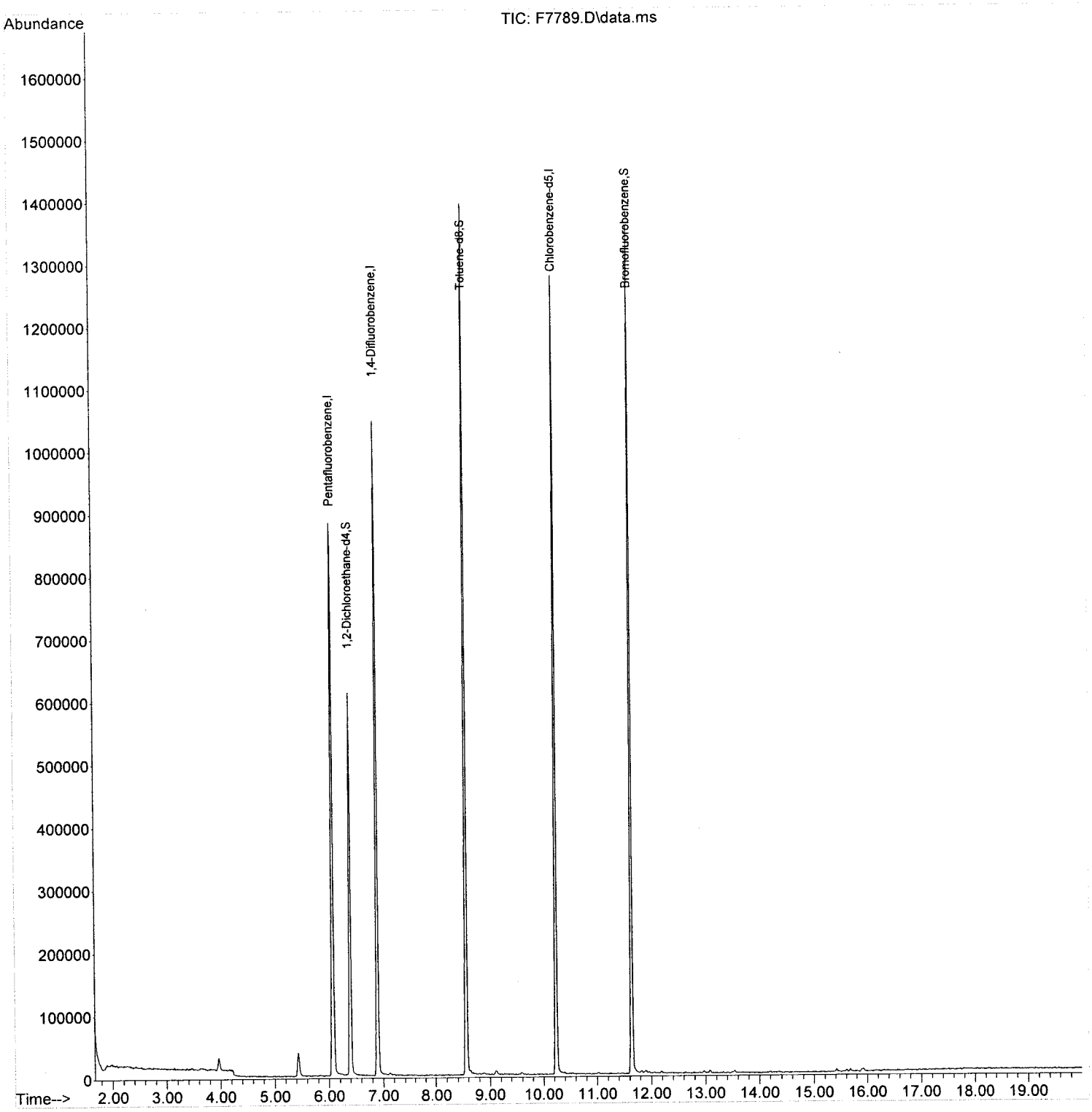
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7789.D
Acq On : 23 Sep 2013 18:41
Operator : XING
Sample : BLKS130923-01,BLKS130923-01,S,5g,0
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 24 09:28:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Sep 24 09:22:13 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7789.D
Acq On : 23 Sep 2013 18:41
Operator : XING
Sample : BLKS130923-01,BLKS130923-01,S,5g,0
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F7789.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.964	222	227	236	rVB	20183	53385	2.06%	0.424%
2	5.436	362	372	383	rBV	37051	107838	4.16%	0.856%
3	6.066	424	434	448	rBV	881852	1890591	72.99%	15.000%
4	6.391	460	466	478	rVB	608426	1259733	48.64%	9.995%
5	6.888	509	515	534	rBV	1044053	1993079	76.95%	15.813%
6	8.563	674	680	694	rBV	1391673	2590158	100.00%	20.550%
7	10.228	838	844	855	rBV	1274909	2396569	92.53%	19.014%
8	11.639	973	983	997	rBV	1352467	2312824	89.29%	18.350%

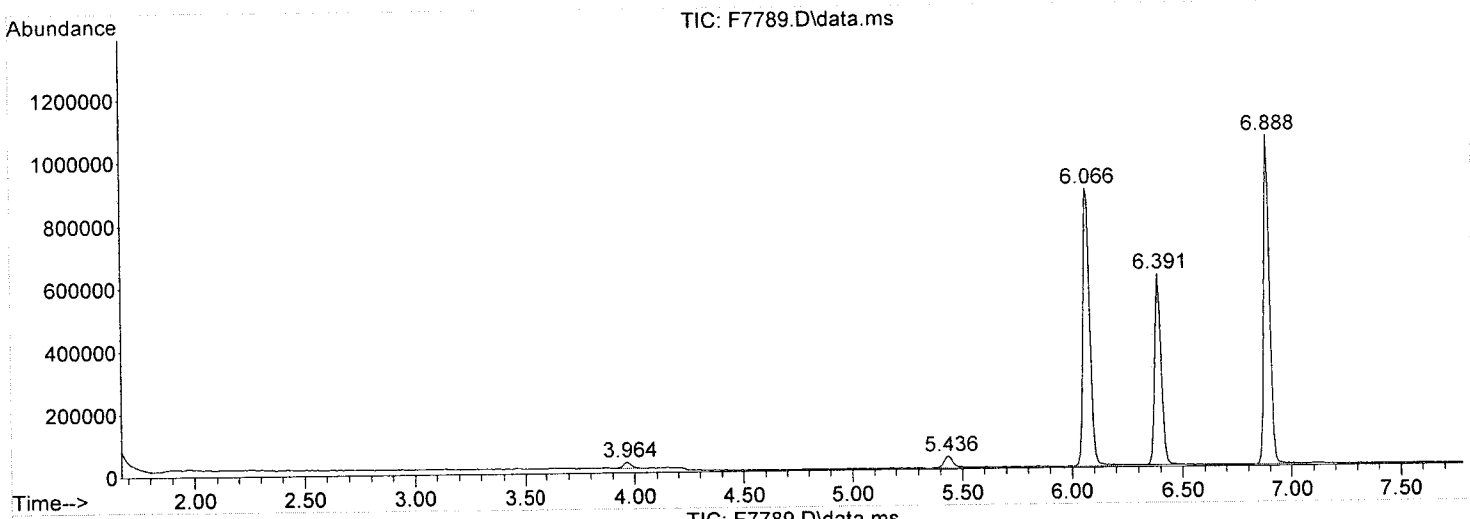
Sum of corrected areas: 12604177

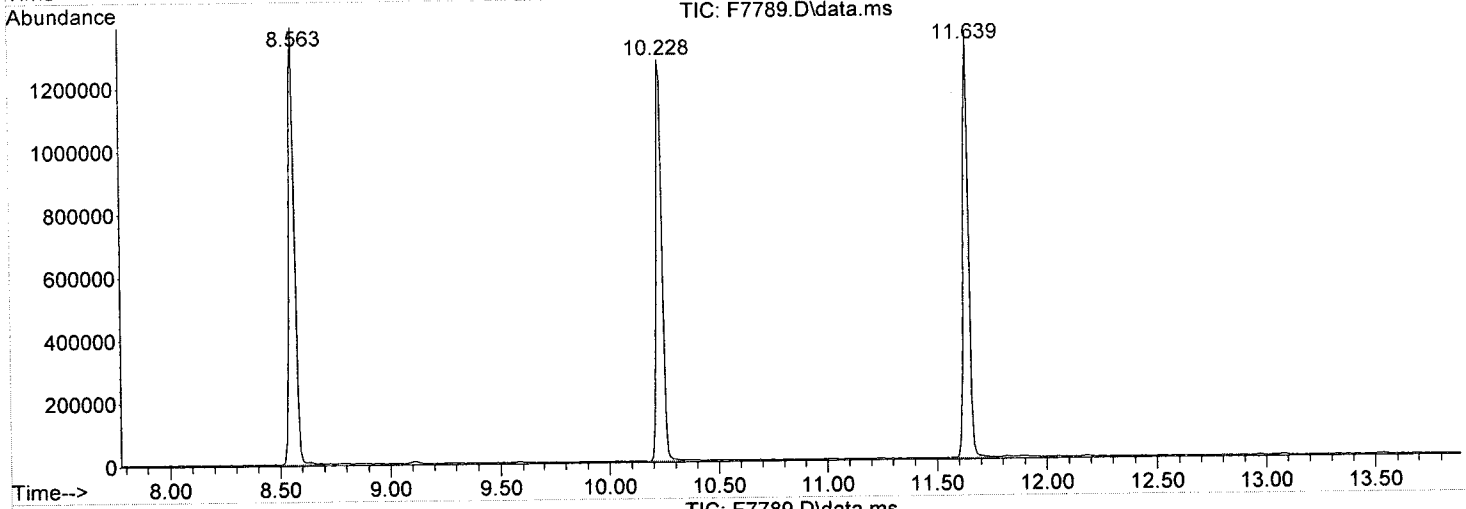
LSC Report - Integrated Chromatogram

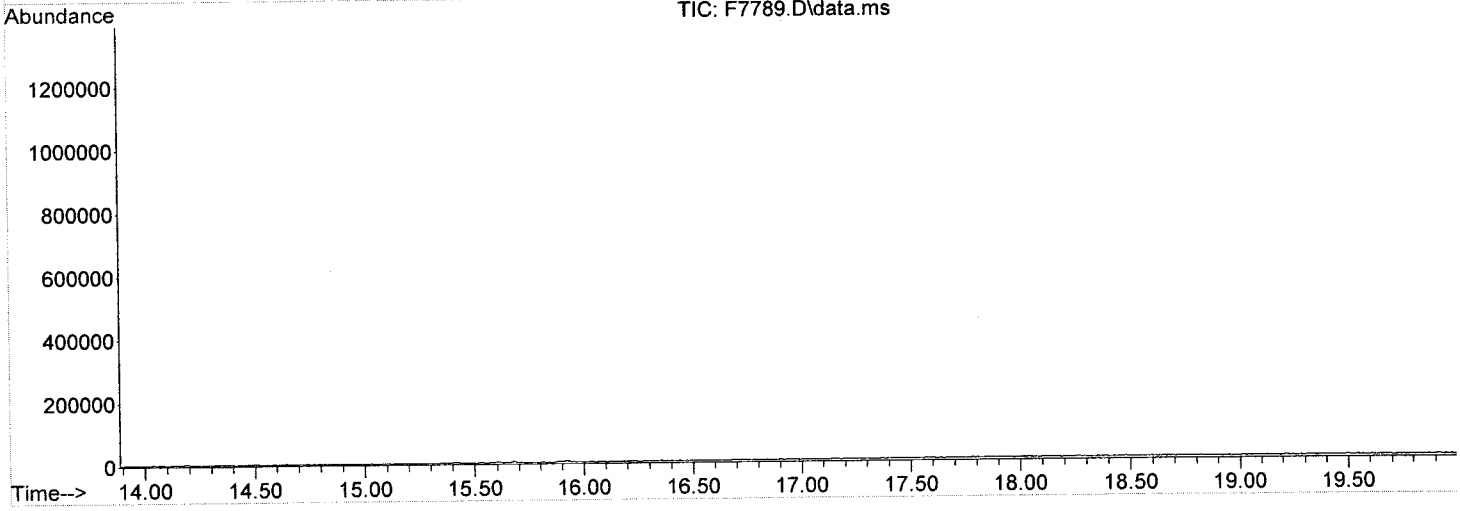
Data Path : C:\msdchem\1\DATA\09-23-13\
Data File : F7789.D
Acq On : 23 Sep 2013 18:41
Operator : XING
Sample : BLKS130923-01,BLKS130923-01,S,5g,0
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0923.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Micro-Extractable DATA

Micro-Extractable QC SUMMARY

8011 LCS ACCURACY RECOVERY

Matrix spike Lab sample ID: LCSA130923-08

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
1,2-Dibromoethane (EDB)	1.0	0.0	1.0	100	70 - 130
1,2-Dibromo-3-chloropropane	1.0	0.0	1.0	100	70 - 130
1,2,3-Trichloropropane	2.0	0.0	1.8	90	70 - 130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

Spike Recovery: __0___ out of __3__ outside limits

8011 MS/MSD ACCURACY RECOVERY

Matrix spike Lab sample ID: 09047-001

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
1,2-Dibromoethane (EDB)	1.0	0.0	1.0	100	60 - 140
1,2-Dibromo-3-chloropropane	1.0	0.0	1.1	110	60 - 140
1,2,3-Trichloropropane	2.0	0.0	2.1	105	60 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2-Dibromoethane (EDB)	0.0	1.0	100	0	30	60 - 140
1,2-Dibromo-3-chloropropane	0.0	1.0	100	10	30	60 - 140
1,2,3-Trichloropropane	0.0	2.0	100	5	30	60 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

RPD: __0___ out of __3__ outside limits

Spike Recovery: __0___ out of __6__ outside limits

8011 METHOD BLANK SUMMARY

Lab File ID: P5221.D

Instrument ID: GC-P

Date Extracted: 09/23/2013

Matrix: AQUEOUS

Date Analyzed: 09/23/2013

Time Analyzed: 11:24

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
8011	LCSA130923-08	09/23/2013	11:39
MW-2	09047-001	09/23/2013	11:53
8011	09047-001MS	09/23/2013	12:07
8011	09047-001MSD	09/23/2013	12:22
TB	09075-001	09/23/2013	12:36
FB	09075-002	09/23/2013	12:50
MW-1	09075-003	09/23/2013	13:05
MW-1	09187-001	09/23/2013	13:19
MW-2	09187-002	09/23/2013	13:33
MW-3	09187-003	09/23/2013	13:48
MW-LEW	09187-004	09/23/2013	14:02
FIELD_BL	09187-005	09/23/2013	14:17
TRIP_BLA	09187-006	09/23/2013	14:31
AOC-7-2	09198-005	09/23/2013	14:46
AOC-7-4	09198-006	09/23/2013	15:00
EX._WELL	09198-007	09/23/2013	15:15
MW-1	09200-001	09/23/2013	15:29
FIELD_BL	09200-002	09/23/2013	15:44
TRIP_BLA	09200-003	09/23/2013	15:59
MW-2	09241-001	09/23/2013	16:13
MW-3	09241-002	09/23/2013	16:28
MW-4	09241-003	09/23/2013	16:42
MW-1	09241-004	09/23/2013	16:57

8011 INITIAL CALIBRATION

Date Analyzed: 09/04/2013

Instrument ID: GC-P

GC Column (1st): RTX-CLP1

Data File: P5110.D P5109.D P5108.D P5107.D P5106.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW FROM	RT WINDOW TO
	0.25	0.5	1	1.5	2			
1,2-Dibromoethane	2.52	2.52	2.52	2.52	2.52	2.52	2.45	2.59
1,2-Dibromo-3-chloropropane	4.12	4.12	4.12	4.12	4.12	4.12	4.04	4.20
1,2,3-Trichloropropane	3.42	3.42	3.42	3.42	3.42	3.42	3.34	3.50

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	0.25	0.5	1	1.5	2		
1,2-Dibromoethane	310729	307207	264291	258415	261471	280423	9.33
1,2-Dibromo-3-chloropropane	554080	481382	450273	464892	431051	476336	9.92
1,2,3-Trichloropropane	35942	33979	29631	32653	31946	32830	7.15

GC Column (2nd): RTX-CLP2

Data File: P5110.C P5109.C P5108.C P5107.C P5106.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW FROM	RT WINDOW TO
	0.25	0.5	1	1.5	2			
1,2-Dibromoethane	2.93	2.93	2.93	2.93	2.93	2.93	2.86	3.00
1,2-Dibromo-3-chloropropane	4.46	4.46	4.46	4.46	4.46	4.46	4.38	4.54
1,2,3-Trichloropropane	3.71	3.71	3.71	3.71	3.71	3.71	3.63	3.79

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	0.25	0.5	1	1.5	2		
1,2-Dibromoethane	3554849	3089560	3205509	3172248	3229620	3250357	5.48
1,2-Dibromo-3-chloropropane	5671059	5053742	4918665	5012925	5017505	5134779	5.92
1,2,3-Trichloropropane	307502	337596	298047	295301	294928	306675	5.88

8011 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/23/2013 **Instrument ID:** GC-P

Data File: P5220.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.57	2.45	2.59	280423	296686	5.80
1,2-Dibromo-3-chloropropane	4.14	4.04	4.20	476336	493618	3.63
1,2,3-Trichloropropane	3.45	3.34	3.50	32830	32280	1.68

GC Column (2nd): RTX-CLP2

Data File: P5220.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.97	2.86	3.00	3250357	3451764	6.20
1,2-Dibromo-3-chloropropane	4.49	4.38	4.54	5134779	5563707	8.35
1,2,3-Trichloropropane	3.74	3.63	3.79	306675	296379	3.36

8011 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/23/2013 **Instrument ID:** GC-P

Data File: P5245.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.59	2.45	2.59	280423	299854	6.93
1,2-Dibromo-3-chloropropane	4.15	4.04	4.20	476336	507685	6.58
1,2,3-Trichloropropane	3.46	3.34	3.50	32830	35824	9.12

GC Column (2nd): RTX-CLP2

Data File: P5245.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.98	2.86	3.00	3250357	3656120	12.48
1,2-Dibromo-3-chloropropane	4.50	4.38	4.54	5134779	5927237	15.43
1,2,3-Trichloropropane	3.75	3.63	3.79	306675	318218	3.76

Micro-Extractable SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : P5235.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 14:46
Operator : IB
Sample : AOC-7-2,09198-005,A,35.0ml,100,09/23/13,1
Misc : 130923-08,09/18/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 23 16:19:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\5040904.M
Quant Title :
QLast Update : Mon Sep 23 11:14:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

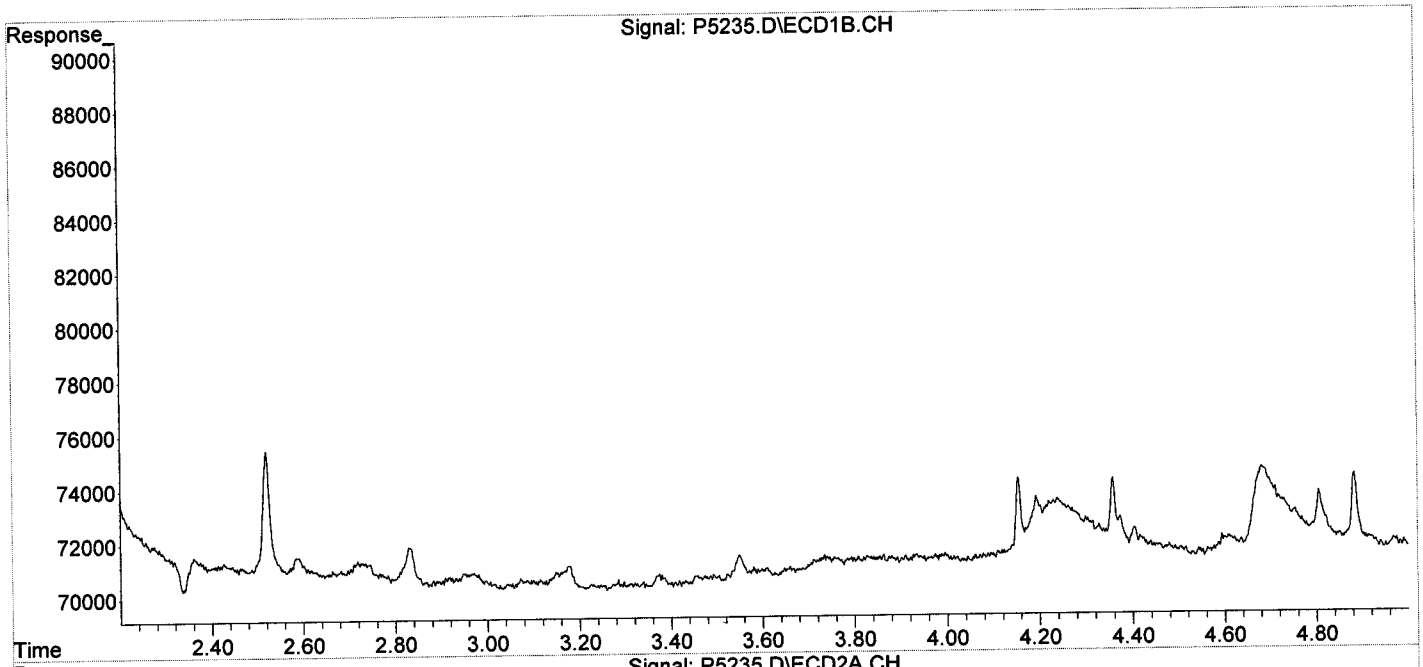
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

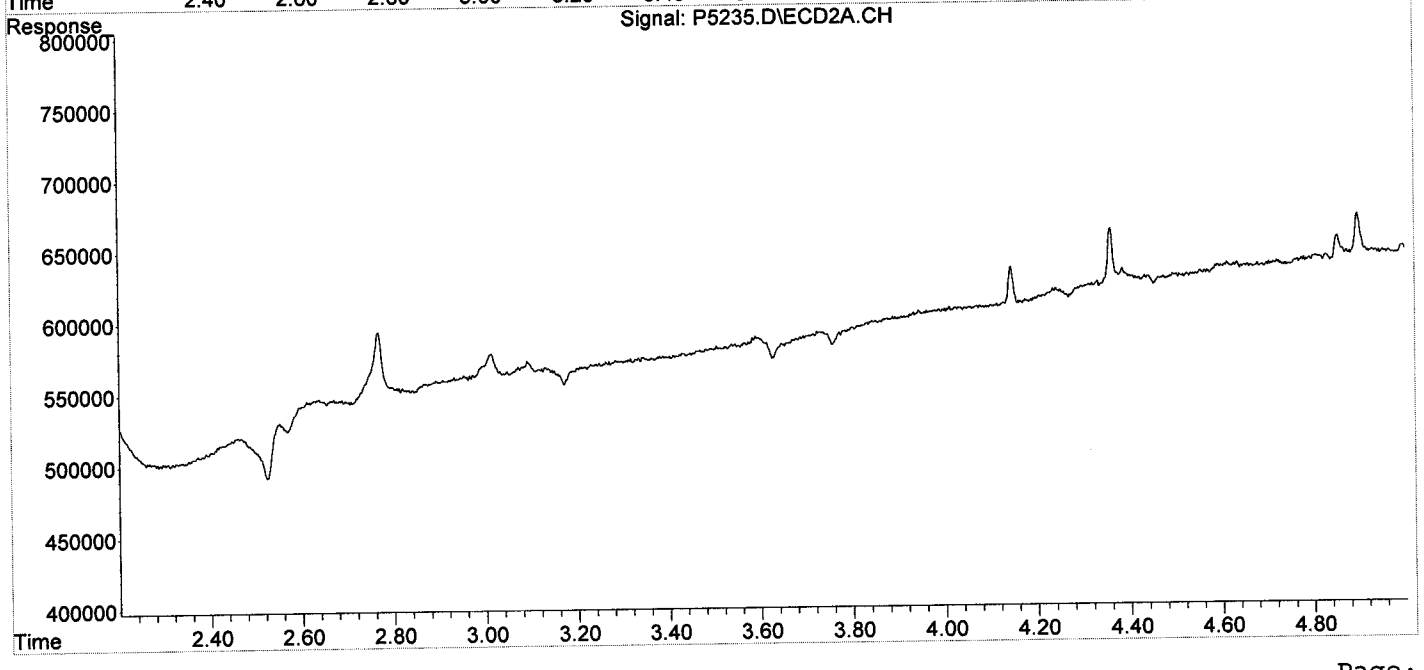
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : P5235.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 14:46
Operator : IB
Sample : AOC-7-2,09198-005,A,35.0ml,100,09/23/13,1
Misc : 130923-08,09/18/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 23 16:19:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\5040904.M
Quant Title :
QLast Update : Mon Sep 23 11:14:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : P5236.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 15:00
Operator : IB
Sample : AOC-7-4,09198-006,A,35.0ml,100,09/23/13,1
Misc : 130923-08,09/18/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 23 16:20:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\5040904.M
Quant Title :
QLast Update : Mon Sep 23 11:14:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

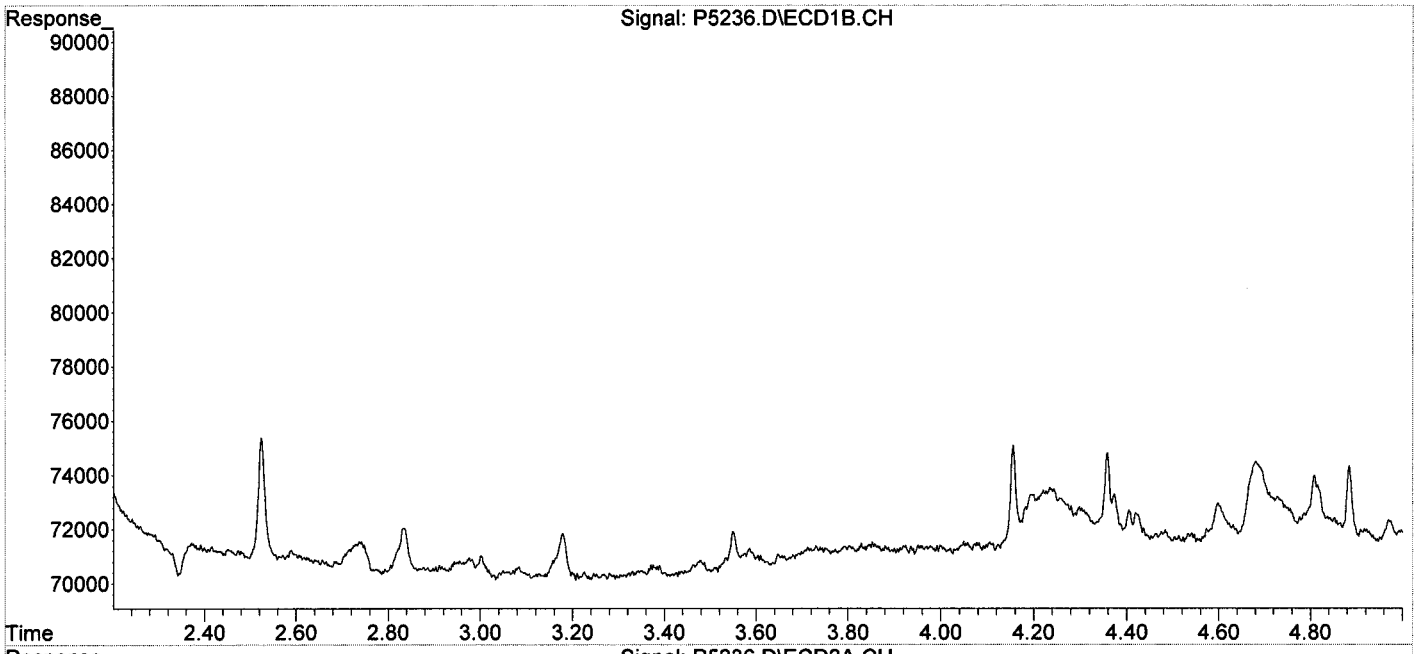
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

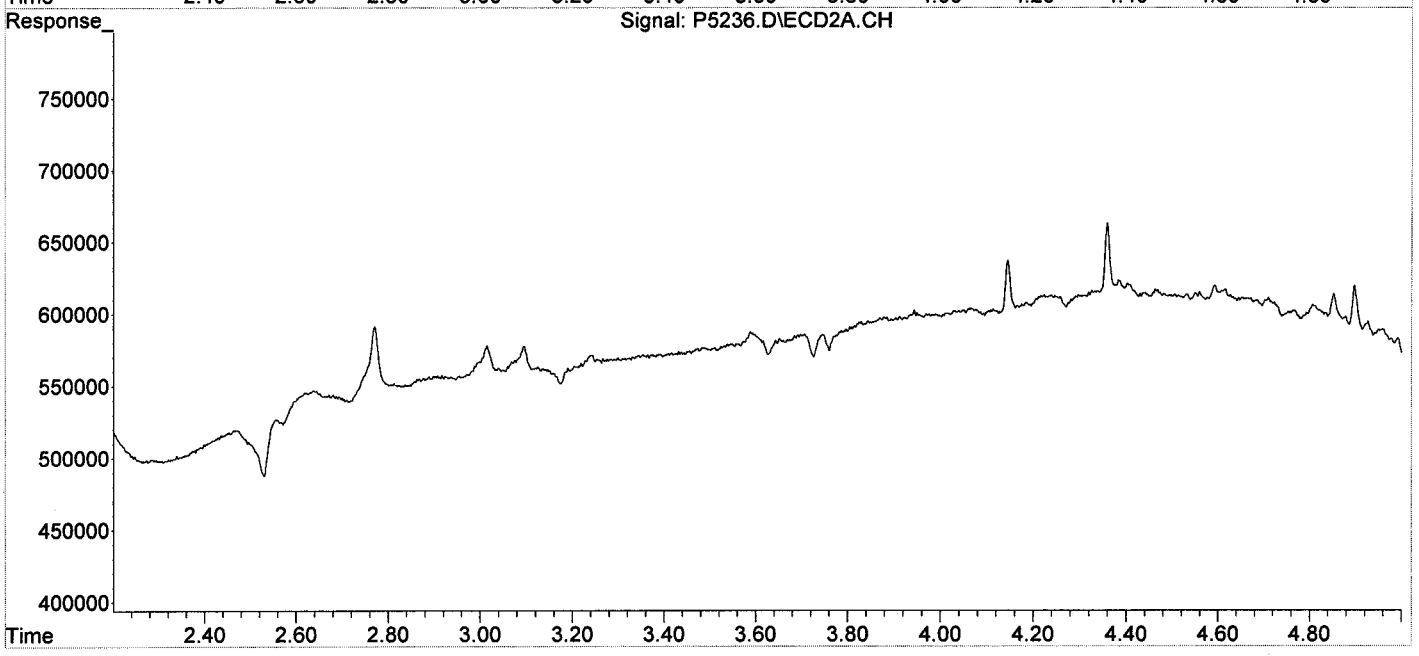
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : P5236.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 15:00
Operator : IB
Sample : AOC-7-4,09198-006,A,35.0ml,100,09/23/13,1
Misc : 130923-08,09/18/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 23 16:20:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\5040904.M
Quant Title :
QLast Update : Mon Sep 23 11:14:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : P5237.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 15:15
Operator : IB
Sample : EX._WELL,09198-007,A,35.0ml,100,09/23/13,1
Misc : 130923-08,09/18/13,09/18/13,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 23 16:20:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\5040904.M
Quant Title :
QLast Update : Mon Sep 23 11:14:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

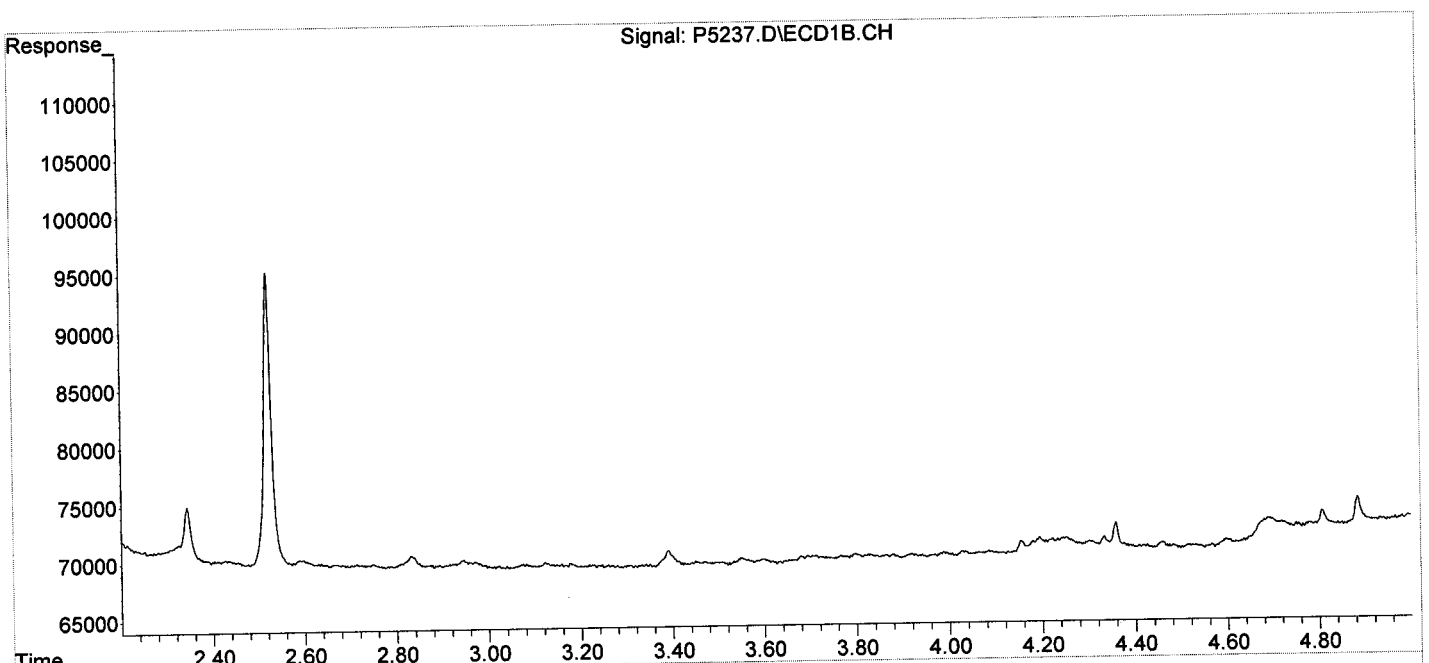
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

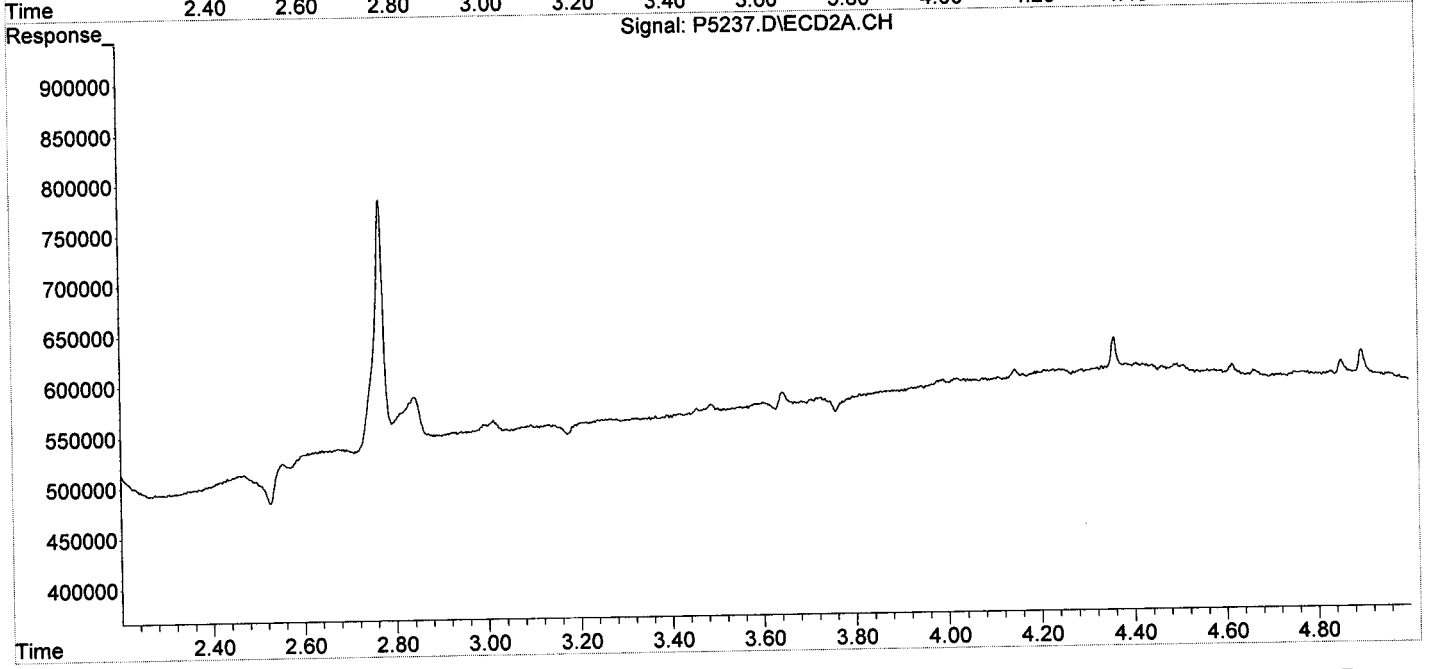
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : P5237.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 15:15
Operator : IB
Sample : EX._WELL,09198-007,A,35.0ml,100,09/23/13,1
Misc : 130923-08,09/18/13,09/18/13,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 23 16:20:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\5040904.M
Quant Title :
QLast Update : Mon Sep 23 11:14:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

Volatiles (8011)

Lab ID: BLKA130923-08
Client ID: 8011
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/23/2013
Data file: P5221.D

GC Column: DB-5/DB1701P
Sample wt/vol: 35.0ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00855
1,2-Dibromo-3-chloropropane	ND		0.014	0.00855
1,2,3-Trichloropropane	ND		0.029	0.00855

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : P5221.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 11:24
Operator : IB
Sample : 8011,BLKA130923-08,A,35.0ml,100,09/23/13,1
Misc : 130923-08,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 23 11:42:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\5040904.M
Quant Title :
QLast Update : Mon Sep 23 11:14:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

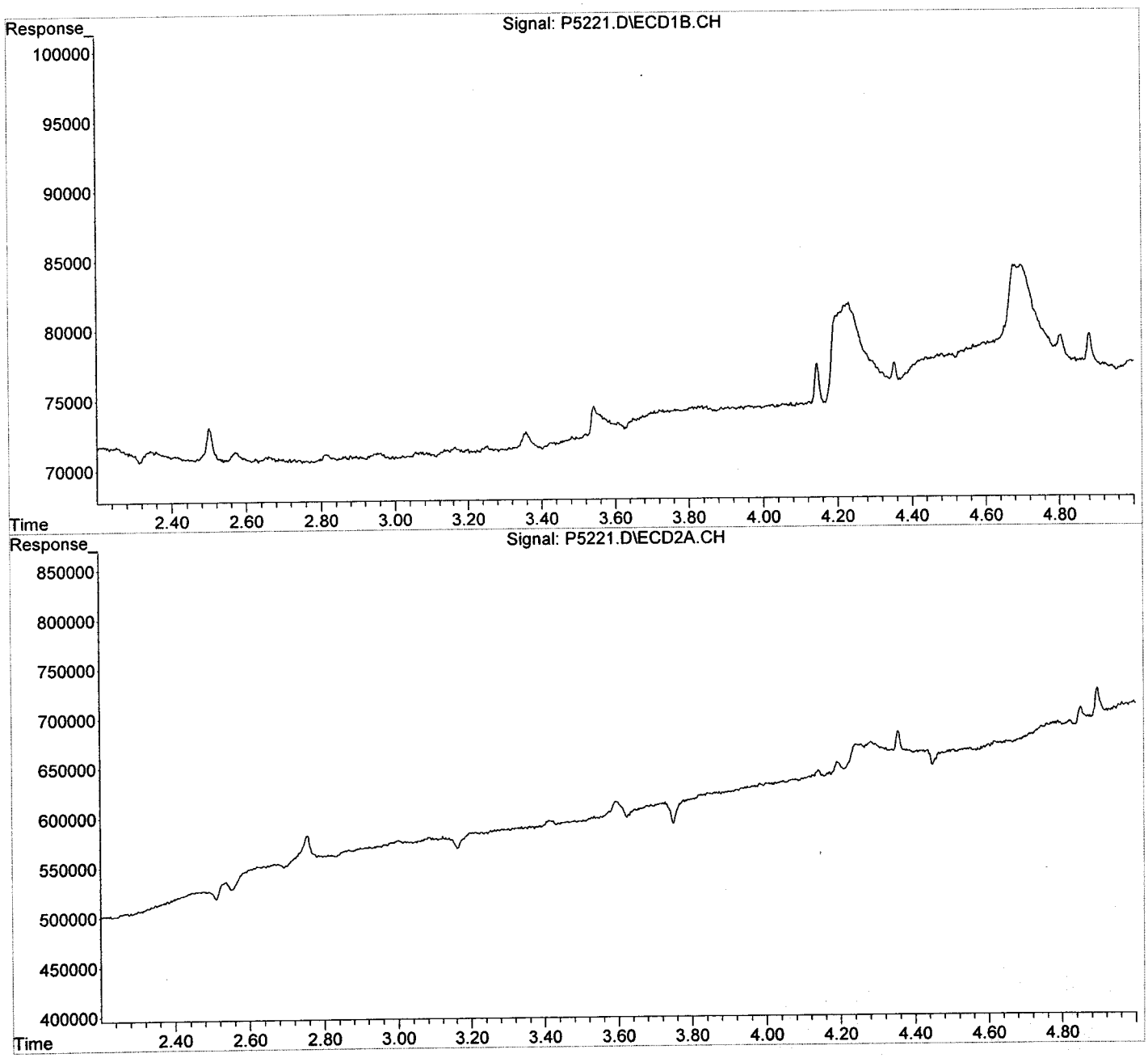
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : P5221.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 11:24
Operator : IB
Sample : 8011,BLKA130923-08,A,35.0ml,100,09/23/13,1
Misc : 130923-08,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 23 11:42:51 2013
Quant Method : C:\MSDCHEM\1\METHODS\5040904.M
Quant Title :
QLast Update : Mon Sep 23 11:14:04 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/19/2013

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNA2		C0085.D	N/A	N/A	N/A	N/A	N/A	N/A
BLKS130919-02	SOIL	C0093.D	54	55	68	71	59	79
LCSS130919-02	SOIL	C0094.D	52	62	76	69	57	92
E13-09216-008MS	SOIL	C0095.D	57	61	75	70	60	93
E13-09216-008MSD	SOIL	C0096.D	58	59	73	70	61	89
E13-09216-008	SOIL	C0097.D	N/A	N/A	52	58	N/A	93
E13-09216-009	SOIL	C0098.D	N/A	N/A	48	54	N/A	91
E13-09167-001	SOIL	C0099.D	N/A	N/A	50	58	N/A	76
E13-09115-001	SOIL	C0100.D	N/A	N/A	60	70	N/A	80
E13-09188-001	SOIL	C0101.D	N/A	N/A	62	71	N/A	84
E13-09192-001	SOIL	C0102.D	N/A	N/A	50	50	N/A	60
E13-09192-002	SOIL	C0103.D	N/A	N/A	57	59	N/A	79
E13-09192-003	SOIL	C0104.D	N/A	N/A	49	51	N/A	69
E13-09204-006	SOIL	C0105.D	41	49	47	50	54	80
E13-09219-001	SOIL	C0106.D	N/A	N/A	57	60	N/A	78
E13-09198-003	SOIL	C0107.D	N/A	N/A	71	79	N/A	95

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6	S7
CCV040BNA2	AQUEOUS	B2115.D	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLKA130920-01	AQUEOUS	B2149.D	51	52	59	57	42	74	46
LCSA130920-01	AQUEOUS	B2150.D	51	51	68	62	44	83	49
E13-09187-001MS	AQUEOUS	B2151.D	24	15	73	73	66	100	59
E13-09187-001MSD	AQUEOUS	B2152.D	24	15	73	73	68	98	61
E13-09187-001	AQUEOUS	B2153.D	N/A	N/A	62	64	N/A	95	60
E13-09187-002	AQUEOUS	B2154.D	N/A	N/A	62	63	N/A	94	59
E13-09187-003	AQUEOUS	B2155.D	N/A	N/A	55	49	N/A	74	61

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	35-126
S6 (TPH) = Terphenyl-d14	23-124	32-135
S7 (DIO) = 1,4-Dioxane-d8	15-110	15-110

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6	S7
CCV040BNA2	AQUEOUS	B2158.D	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E13-09187-004	AQUEOUS	B2160.D	N/A	N/A	70	66	N/A	97	30
E13-09187-005	AQUEOUS	B2161.D	N/A	N/A	63	61	N/A	101	39
E13-09198-005	AQUEOUS	B2162.D	N/A	N/A	62	68	N/A	94	44
E13-09198-006	AQUEOUS	B2163.D	N/A	N/A	58	60	N/A	84	41
E13-09198-007	AQUEOUS	B2164.D	40	43	60	61	44	97	41

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	35-126
S6 (TPH) = Terphenyl-d14	23-124	32-135
S7 (DIO) = 1,4-Dioxane-d8	15-110	15-110

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130919-02
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
Data file: C0094.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	50.0	23.4	47		40 - 140
Pyridine	50.0	20.2	40		20 - 120
Benzaldehyde	50.0	15.1	30		10 - 110
Phenol	50.0	36.4	73		30 - 140
Aniline	50.0	36.2	72		40 - 140
Bis(2-chloroethyl) ether	50.0	35.8	72		40 - 140
2-Chlorophenol	50.0	30.9	62		30 - 140
1,3-Dichlorobenzene	50.0	31.4	63		40 - 140
1,4-Dichlorobenzene	50.0	31.3	63		40 - 140
Benzyl alcohol	50.0	28.1	56		40 - 140
1,2-Dichlorobenzene	50.0	31.8	64		40 - 140
2-Methylphenol	50.0	37.6	75		30 - 140
Bis(2-chloroisopropyl) ether	50.0	39.7	79		40 - 140
4-Methylphenol	50.0	33.3	67		30 - 140
N-Nitrosodi-n-propylamine	50.0	34.6	69		40 - 140
Acetophenone	50.0	36.2	72		40 - 140
3-Methylphenol	50.0	33.3	67		30 - 140
Hexachloroethane	50.0	32.5	65		40 - 140
Nitrobenzene	50.0	34.9	70		40 - 140
Isophorone	50.0	33.4	67		40 - 140
2-Nitrophenol	50.0	34.4	69		30 - 140
2,4-Dimethylphenol	50.0	34.4	69		30 - 140
Bis(2-chloroethoxy) methane	50.0	34.3	69		40 - 140
Benzoic acid	50.0	35.1	70		30 - 140
2,4-Dimethylaniline	50.0	30.4	61		40 - 140
2,4-Dichlorophenol	50.0	33.3	67		30 - 140
1,2,4-Trichlorobenzene	50.0	31.8	64		40 - 140
Naphthalene	50.0	32.7	65		40 - 140
4-Chloroaniline	50.0	31.9	64		40 - 140
Hexachlorobutadiene	50.0	32.1	64		40 - 140
Caprolactam	50.0	36.1	72		40 - 140
4-Chloro-3-methylphenol	50.0	31.9	64		30 - 140
2-Methylnaphthalene	50.0	32.0	64		40 - 140
Hexachlorocyclopentadiene	50.0	11.8	24		5 - 105
2,4,6-Trichlorophenol	50.0	31.5	63		30 - 140
2,4,5-Trichlorophenol	50.0	32.5	65		30 - 140
1,1'-Biphenyl	50.0	35.0	70		40 - 140
2-Chloronaphthalene	50.0	32.9	66		40 - 140
2-Nitroaniline	50.0	35.9	72		40 - 140
Dimethyl phthalate	50.0	31.7	63		40 - 140
2,6-Dinitrotoluene	50.0	29.9	60		40 - 140
Acenaphthylene	50.0	32.3	65		40 - 140
3-Nitroaniline	50.0	30.3	61		40 - 140
Acenaphthene	50.0	33.6	67		40 - 140
2,4-Dinitrophenol	50.0	31.4	63		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130919-02
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
Data file: C0094.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	50.0	30.2	60		30 - 140
2,4-Dinitrotoluene	50.0	31.0	62		40 - 140
Dibenzofuran	50.0	31.9	64		40 - 140
Diethyl phthalate	50.0	31.6	63		40 - 140
Fluorene	50.0	33.3	67		40 - 140
4-Chlorophenyl phenyl ether	50.0	33.0	66		40 - 140
4-Nitroaniline	50.0	30.2	60		40 - 140
1,2,4,5-Tetrachlorobenzene	50.0	32.2	64		40 - 140
2,3,4,6-Tetrachlorophenol	50.0	29.0	58		40 - 140
4,6-Dinitro-2-methylphenol	50.0	34.2	68		10 - 110
N-Nitrosodiphenylamine	50.0	34.6	69		40 - 140
1,2-Diphenylhydrazine	50.0	33.1	66		40 - 140
4-Bromophenyl phenyl ether	50.0	34.3	69		40 - 140
Hexachlorobenzene	50.0	32.5	65		40 - 140
Atrazine	50.0	32.7	65		20 - 120
Pentachlorophenol	50.0	20.1	40		30 - 140
Phenanthrene	50.0	34.1	68		40 - 140
Anthracene	50.0	34.2	68		40 - 140
Carbazole	50.0	30.3	61		40 - 140
Di-n-butyl phthalate	50.0	33.9	68		40 - 140
Fluoranthene	50.0	29.0	58		40 - 140
Benzidine	50.0	6.0	12		5 - 105
Pyrene	50.0	46.3	93		40 - 140
3,3'-Dimethylbenzidine	50.0	11.0	22		5 - 105
Butyl benzyl phthalate	50.0	48.0	96		40 - 140
3,3'-Dichlorobenzidine	50.0	43.8	88		40 - 140
Benzo[a]anthracene	50.0	41.9	84		40 - 140
Chrysene	50.0	27.6	55		40 - 140
Bis(2-ethylhexyl) phthalate	50.0	50.7	101		40 - 140
Di-n-octyl phthalate	50.0	62.8	126		40 - 140
Benzo[b]fluoranthene	50.0	48.2	96		40 - 140
Benzo[k]fluoranthene	50.0	53.8	108		40 - 140
Benzo[a]pyrene	50.0	49.0	98		40 - 140
Indeno[1,2,3-cd]pyrene	50.0	47.5	95		40 - 140
Dibenz[a,h]anthracene	50.0	45.3	91		40 - 140
Benzo[g,h,i]perylene	50.0	47.0	94		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA130920-01
Date Received: NA
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
Data file: B2150.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	30.0	15.9	53		40 - 140
Pyridine	30.0	14.4	48		20 - 120
Benzaldehyde	30.0	8.6	29		10 - 110
Phenol	30.0	16.9	56		30 - 140
Aniline	30.0	18.7	62		40 - 140
Bis(2-chloroethyl) ether	30.0	15.9	53		40 - 140
2-Chlorophenol	30.0	16.3	54		30 - 140
1,3-Dichlorobenzene	30.0	17.2	57		40 - 140
1,4-Dichlorobenzene	30.0	16.6	55		40 - 140
Benzyl alcohol	30.0	15.0	50		40 - 140
1,2-Dichlorobenzene	30.0	16.7	56		40 - 140
2-Methylphenol	30.0	17.9	60		30 - 140
Bis(2-chloroisopropyl) ether	30.0	15.2	51		40 - 140
4-Methylphenol	30.0	17.4	58		30 - 140
N-Nitrosodi-n-propylamine	30.0	16.7	56		40 - 140
Acetophenone	30.0	18.5	62		40 - 140
3-Methylphenol	30.0	17.4	58		30 - 140
Hexachloroethane	30.0	16.8	56		40 - 140
Nitrobenzene	30.0	18.2	61		40 - 140
Isophorone	30.0	16.7	56		40 - 140
2-Nitrophenol	30.0	17.9	60		30 - 140
2,4-Dimethylphenol	30.0	16.1	54		30 - 140
Bis(2-chloroethoxy) methane	30.0	17.1	57		40 - 140
Benzoic acid	30.0	18.6	62		30 - 140
2,4-Dimethylaniline	30.0	15.9	53		40 - 140
2,4-Dichlorophenol	30.0	17.2	57		30 - 140
1,2,4-Trichlorobenzene	30.0	16.4	55		40 - 140
Naphthalene	30.0	17.4	58		40 - 140
4-Chloroaniline	30.0	17.8	59		40 - 140
Hexachlorobutadiene	30.0	16.7	56		40 - 140
Caprolactam	30.0	19.9	66		40 - 140
4-Chloro-3-methylphenol	30.0	18.4	61		30 - 140
2-Methylnaphthalene	30.0	18.3	61		40 - 140
Hexachlorocyclopentadiene	30.0	15.9	53		5 - 105
2,4,6-Trichlorophenol	30.0	14.4	48		30 - 140
2,4,5-Trichlorophenol	30.0	16.5	55		30 - 140
1,1'-Biphenyl	30.0	16.8	56		40 - 140
2-Chloronaphthalene	30.0	16.0	53		40 - 140
2-Nitroaniline	30.0	18.6	62		40 - 140
Dimethyl phthalate	30.0	17.3	58		40 - 140
2,6-Dinitrotoluene	30.0	15.8	53		40 - 140
Acenaphthylene	30.0	17.5	58		40 - 140
3-Nitroaniline	30.0	18.6	62		40 - 140
Acenaphthene	30.0	17.3	58		40 - 140
2,4-Dinitrophenol	30.0	12.4	41		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA130920-01
Date Received: NA
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
Data file: B2150.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	30.0	21.2	71		30 - 140
2,4-Dinitrotoluene	30.0	17.0	57		40 - 140
Dibenzofuran	30.0	16.8	56		40 - 140
Diethyl phthalate	30.0	17.6	59		40 - 140
Fluorene	30.0	18.1	60		40 - 140
4-Chlorophenyl phenyl ether	30.0	15.2	51		40 - 140
4-Nitroaniline	30.0	18.0	60		40 - 140
1,2,4,5-Tetrachlorobenzene	30.0	15.0	50		40 - 140
2,3,4,6-Tetrachlorophenol	30.0	14.6	49		40 - 140
4,6-Dinitro-2-methylphenol	30.0	10.3	34		10 - 110
N-Nitrosodiphenylamine	30.0	16.1	54		40 - 140
1,2-Diphenylhydrazine	30.0	16.9	56		40 - 140
4-Bromophenyl phenyl ether	30.0	15.8	53		40 - 140
Hexachlorobenzene	30.0	18.3	61		40 - 140
Atrazine	30.0	20.8	69		20 - 120
Pentachlorophenol	30.0	14.9	50		30 - 140
Phenanthrene	30.0	19.1	64		40 - 140
Anthracene	30.0	19.1	64		40 - 140
Carbazole	30.0	17.7	59		40 - 140
Di-n-butyl phthalate	30.0	20.9	70		40 - 140
Fluoranthene	30.0	18.7	62		40 - 140
Benzidine	30.0	5.0	17		5 - 105
Pyrene	30.0	23.4	78		40 - 140
3,3'-Dimethylbenzidine	30.0	4.7	16		5 - 105
Butyl benzyl phthalate	30.0	26.2	87		40 - 140
3,3'-Dichlorobenzidine	30.0	25.0	83		40 - 140
Benzo[a]anthracene	30.0	22.5	75		40 - 140
Chrysene	30.0	14.7	49		40 - 140
Bis(2-ethylhexyl) phthalate	30.0	28.0	93		40 - 140
Di-n-octyl phthalate	30.0	33.6	112		40 - 140
Benzo[b]fluoranthene	30.0	32.3	108		40 - 140
Benzo[k]fluoranthene	30.0	21.5	72		40 - 140
Benzo[a]pyrene	30.0	28.3	94		40 - 140
Indeno[1,2,3-cd]pyrene	30.0	26.6	89		40 - 140
Dibenz[a,h]anthracene	30.0	24.6	82		40 - 140
Benzo[g,h,i]perylene	30.0	23.5	78		40 - 140
1,4-Dioxane	30.0	23.4	78		15 - 110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09216-008
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
MS Data file: C0095.D
MSD Data file: C0096.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 21.0
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	50.0	0.00	24.10	48		25.00	50		4		40-140/30
Pyridine	50.0	0.00	20.50	41		20.10	40		2		20-120/30
Benzaldehyde	50.0	0.00	18.60	37		18.90	38		2		10-110/30
Phenol	50.0	0.00	37.30	75		34.70	69		7		30-140/30
Aniline	50.0	0.00	35.10	70		32.20	64		9		40-140/30
Bis(2-chloroethyl) ether	50.0	0.00	34.60	69		31.70	63		9		40-140/30
2-Chlorophenol	50.0	0.00	30.90	62		31.80	64		3		30-140/30
1,3-Dichlorobenzene	50.0	0.00	31.40	63		31.50	63		0		40-140/30
1,4-Dichlorobenzene	50.0	0.00	31.60	63		31.20	62		1		40-140/30
Benzyl alcohol	50.0	0.00	28.20	56		26.70	53		5		40-140/30
1,2-Dichlorobenzene	50.0	0.00	32.00	64		31.50	63		2		40-140/30
2-Methylphenol	50.0	0.00	37.70	75		36.30	73		4		30-140/30
Bis(2-chloroisopropyl) ether	50.0	0.00	37.50	75		33.60	67		11		40-140/30
4-Methylphenol	50.0	0.00	33.90	68		31.60	63		7		30-140/30
N-Nitrosodi-n-propylamine	50.0	0.00	34.40	69		31.10	62		10		40-140/30
Acetophenone	50.0	0.00	35.50	71		33.10	66		7		40-140/30
3-Methylphenol	50.0	0.00	33.90	68		31.60	63		7		30-140/30
Hexachloroethane	50.0	0.00	31.90	64		31.30	63		2		40-140/30
Nitrobenzene	50.0	0.00	34.10	68		33.60	67		1		40-140/30
Isophorone	50.0	0.00	33.00	66		31.30	63		5		40-140/30
2-Nitrophenol	50.0	0.00	34.90	70		36.00	72		3		30-140/30
2,4-Dimethylphenol	50.0	0.00	34.00	68		34.40	69		1		30-140/30
Bis(2-chloroethoxy) methane	50.0	0.00	34.40	69		33.30	67		3		40-140/30
Benzoic acid	50.0	0.00	37.80	76		42.80	86		12		30-140/30
2,4-Dimethylaniline	50.0	0.00	30.30	61		29.60	59		2		40-140/30
2,4-Dichlorophenol	50.0	0.00	33.60	67		34.20	68		2		30-140/30
1,2,4-Trichlorobenzene	50.0	0.00	32.20	64		33.10	66		3		40-140/30
Naphthalene	50.0	0.00	33.00	66		33.20	66		1		40-140/30
4-Chloroaniline	50.0	0.00	32.30	65		31.80	64		2		40-140/30
Hexachlorobutadiene	50.0	0.00	32.70	65		35.50	71		8		40-140/30
Caprolactam	50.0	0.00	35.30	71		34.80	70		1		40-140/30
4-Chloro-3-methylphenol	50.0	0.00	32.40	65		32.50	65		0		30-140/30
2-Methylnaphthalene	50.0	0.00	32.70	65		32.80	66		0		40-140/30
Hexachlorocyclopentadiene	50.0	0.00	12.90	26		13.10	26		2		5-105/30
2,4,6-Trichlorophenol	50.0	0.00	31.60	63		32.60	65		3		30-140/30
2,4,5-Trichlorophenol	50.0	0.00	32.50	65		33.00	66		2		30-140/30
1,1'-Biphenyl	50.0	0.00	35.70	71		36.00	72		1		40-140/30
2-Chloronaphthalene	50.0	0.00	32.00	64		34.10	68		6		40-140/30
2-Nitroaniline	50.0	0.00	36.00	72		33.40	67		7		40-140/30
Dimethyl phthalate	50.0	0.00	32.50	65		33.40	67		3		40-140/30
2,6-Dinitrotoluene	50.0	0.00	31.30	63		32.40	65		3		40-140/30
Acenaphthylene	50.0	0.00	32.40	65		32.80	66		1		40-140/30
3-Nitroaniline	50.0	0.00	31.80	64		30.50	61		4		40-140/30
Acenaphthene	50.0	0.00	33.50	67		33.10	66		1		40-140/30
2,4-Dinitrophenol	50.0	0.00	33.20	66		34.00	68		2		5-105/30

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09216-008
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
MS Data file: C0095.D
MSD Data file: C0096.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 21.0
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	50.0	0.00	28.10	56		25.50	51		10		30-140/30
2,4-Dinitrotoluene	50.0	0.00	32.80	66		33.00	66		1		40-140/30
Dibenzofuran	50.0	0.00	32.20	64		32.10	64		0		40-140/30
Diethyl phthalate	50.0	0.00	32.10	64		31.00	62		3		40-140/30
Fluorene	50.0	0.00	33.10	66		33.20	66		0		40-140/30
4-Chlorophenyl phenyl ether	50.0	0.00	33.10	66		34.10	68		3		40-140/30
4-Nitroaniline	50.0	0.00	31.40	63		31.00	62		1		40-140/30
1,2,4,5-Tetrachlorobenzene	50.0	0.00	32.10	64		34.30	69		7		40-140/30
2,3,4,6-Tetrachlorophenol	50.0	0.00	29.80	60		30.50	61		2		40-140/30
4,6-Dinitro-2-methylphenol	50.0	0.00	36.30	73		35.70	71		2		10-110/30
N-Nitrosodiphenylamine	50.0	0.00	34.60	69		35.20	70		2		40-140/30
1,2-Diphenylhydrazine	50.0	0.00	29.70	59		30.00	60		1		40-140/30
4-Bromophenyl phenyl ether	50.0	0.00	34.20	68		35.90	72		5		40-140/30
Hexachlorobenzene	50.0	0.00	33.70	67		35.10	70		4		40-140/30
Atrazine	50.0	0.00	31.90	64		32.50	65		2		20-120/30
Pentachlorophenol	50.0	0.00	19.90	40		21.10	42		6		30-140/30
Phenanthrene	50.0	0.00	34.50	69		34.20	68		1		40-140/30
Anthracene	50.0	0.00	33.50	67		33.70	67		1		40-140/30
Carbazole	50.0	0.00	29.40	59		30.10	60		2		40-140/30
Di-n-butyl phthalate	50.0	0.00	32.80	66		33.20	66		1		40-140/30
Fluoranthene	50.0	0.00	29.30	59		29.90	60		2		40-140/30
Benzidine	50.0	0.00	8.10	16		9.10	18		12		5-105/30
Pyrene	50.0	0.00	44.20	88		42.50	85		4		40-140/30
3,3'-Dimethylbenzidine	50.0	0.00	13.70	27		14.40	29		5		5-105/30
Butyl benzyl phthalate	50.0	0.00	44.80	90		39.50	79		13		40-140/30
3,3'-Dichlorobenzidine	50.0	0.00	45.50	91		44.90	90		1		40-140/30
Benzo[a]anthracene	50.0	0.00	40.80	82		40.50	81		1		40-140/30
Chrysene	50.0	0.00	27.60	55		27.70	55		0		40-140/30
Bis(2-ethylhexyl) phthalate	50.0	0.00	47.50	95		46.10	92		3		40-140/30
Di-n-octyl phthalate	50.0	0.00	61.90	124		55.40	111		11		40-140/30
Benzo[b]fluoranthene	50.0	0.00	53.30	107		46.20	92		14		40-140/30
Benzo[k]fluoranthene	50.0	0.00	48.20	96		52.20	104		8		40-140/30
Benzo[a]pyrene	50.0	0.00	49.50	99		49.00	98		1		40-140/30
Indeno[1,2,3-cd]pyrene	50.0	0.00	49.00	98		48.70	97		1		40-140/30
Dibenz[a,h]anthracene	50.0	0.00	46.10	92		46.20	92		0		40-140/30
Benzo[g,h,i]perylene	50.0	0.00	49.70	99		48.70	97		2		40-140/30

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09187-001
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
MS Data file: B2151.D
MSD Data file: B2152.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	40.0	0.00	19.90	50		18.00	45		10		40-140/20
Pyridine	40.0	0.00	13.20	33		12.80	32		3		20-120/20
Benzaldehyde	40.0	0.00	7.30	18		8.80	22		19		10-110/20
Phenol	40.0	0.00	15.90	40		16.10	40		1		30-140/20
Aniline	40.0	0.00	18.60	47		18.30	46		2		40-140/20
Bis(2-chloroethyl) ether	40.0	0.00	17.50	44		17.60	44		1		40-140/20
2-Chlorophenol	40.0	0.00	15.40	39		15.40	39		0		30-140/20
1,3-Dichlorobenzene	40.0	0.00	16.30	41		16.90	42		4		40-140/20
1,4-Dichlorobenzene	40.0	0.00	17.50	44		16.10	40		8		40-140/20
Benzyl alcohol	40.0	0.00	16.30	41		16.10	40		1		40-140/20
1,2-Dichlorobenzene	40.0	0.00	15.80	40		16.00	40		1		40-140/20
2-Methylphenol	40.0	0.00	16.00	40		16.00	40		0		30-140/20
Bis(2-chloroisopropyl) ether	40.0	0.00	16.80	42		16.20	41		4		40-140/20
4-Methylphenol	40.0	0.00	16.90	42		16.60	42		2		30-140/20
N-Nitrosodi-n-propylamine	40.0	0.00	16.00	40		15.90	40		1		40-140/20
Acetophenone	40.0	0.00	16.80	42		16.90	42		1		40-140/20
3-Methylphenol	40.0	0.00	16.90	42		16.60	42		2		30-140/20
Hexachloroethane	40.0	0.00	15.90	40		16.10	40		1		40-140/20
Nitrobenzene	40.0	0.00	17.10	43		17.10	43		0		40-140/20
Isophorone	40.0	0.00	18.90	47		18.30	46		3		40-140/20
2-Nitrophenol	40.0	0.00	16.10	40		16.60	42		3		30-140/20
2,4-Dimethylphenol	40.0	0.00	18.10	45		18.00	45		1		30-140/20
Bis(2-chloroethoxy) methane	40.0	0.00	16.50	41		16.60	42		1		40-140/20
Benzoic acid	40.0	0.00	20.20	51		19.80	50		2		30-140/20
2,4-Dimethylaniline	40.0	0.00	17.40	44		17.20	43		1		40-140/20
2,4-Dichlorophenol	40.0	0.00	16.50	41		16.40	41		1		30-140/20
1,2,4-Trichlorobenzene	40.0	0.00	16.20	41		16.20	41		0		40-140/20
Naphthalene	40.0	0.00	16.10	40		16.10	40		0		40-140/20
4-Chloroaniline	40.0	0.00	16.60	42		16.20	41		2		40-140/20
Hexachlorobutadiene	40.0	0.00	16.20	41		16.30	41		1		40-140/20
Caprolactam	40.0	0.00	18.70	47		20.40	51		9		40-140/20
4-Chloro-3-methylphenol	40.0	0.00	17.60	44		17.70	44		1		30-140/20
2-Methylnaphthalene	40.0	0.00	17.40	44		17.20	43		1		40-140/20
Hexachlorocyclopentadiene	40.0	0.00	15.80	40		16.70	42		6		5-105/20
2,4,6-Trichlorophenol	40.0	0.00	14.70	37		14.90	37		1		30-140/20
2,4,5-Trichlorophenol	40.0	0.00	15.00	38		14.80	37		1		30-140/20
1,1'-Biphenyl	40.0	0.00	16.30	41		16.50	41		1		40-140/20
2-Chloronaphthalene	40.0	0.00	16.10	40		16.40	41		2		40-140/20
2-Nitroaniline	40.0	0.00	18.60	47		17.60	44		6		40-140/20
Dimethyl phthalate	40.0	0.00	16.10	40		16.00	40		1		40-140/20
2,6-Dinitrotoluene	40.0	0.00	17.90	45		18.20	46		2		40-140/20
Acenaphthylene	40.0	0.00	16.70	42		16.60	42		1		40-140/20
3-Nitroaniline	40.0	0.00	17.30	43		17.20	43		1		40-140/20
Acenaphthene	40.0	0.00	16.40	41		16.40	41		0		40-140/20
2,4-Dinitrophenol	40.0	0.00	15.90	40		17.20	43		8		5-105/20

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E13-09187-001
Date Received: 09/18/2013
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
MS Data file: B2151.D
MSD Data file: B2152.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	40.0	0.00	24.60	62		24.00	60		2		30-140/20
2,4-Dinitrotoluene	40.0	0.00	16.20	41		16.70	42		3		40-140/20
Dibenzofuran	40.0	0.00	16.80	42		16.80	42		0		40-140/20
Diethyl phthalate	40.0	0.00	16.60	42		16.70	42		1		40-140/20
Fluorene	40.0	0.00	16.80	42		16.80	42		0		40-140/20
4-Chlorophenyl phenyl ether	40.0	0.00	16.30	41		17.40	44		7		40-140/20
4-Nitroaniline	40.0	0.00	21.10	53		18.00	45		16		40-140/20
1,2,4,5-Tetrachlorobenzene	40.0	0.00	19.40	49		18.90	47		3		40-140/20
2,3,4,6-Tetrachlorophenol	40.0	0.00	17.40	44		16.40	41		6		40-140/20
4,6-Dinitro-2-methylphenol	40.0	0.00	12.40	31		14.10	35		13		10-110/20
N-Nitrosodiphenylamine	40.0	0.00	16.00	40		17.50	44		9		40-140/20
1,2-Diphenylhydrazine	40.0	0.00	17.10	43		16.80	42		2		40-140/20
4-Bromophenyl phenyl ether	40.0	0.00	18.30	46		17.20	43		6		40-140/20
Hexachlorobenzene	40.0	0.00	17.00	43		17.20	43		1		40-140/20
Atrazine	40.0	0.00	19.60	49		19.80	50		1		20-120/20
Pentachlorophenol	40.0	0.00	16.50	41		17.60	44		6		30-140/20
Phenanthrene	40.0	0.00	17.60	44		17.80	45		1		40-140/20
Anthracene	40.0	0.00	18.10	45		18.10	45		0		40-140/20
Carbazole	40.0	0.00	16.30	41		16.20	41		1		40-140/20
Di-n-butyl phthalate	40.0	0.00	19.80	50		20.00	50		1		40-140/20
Fluoranthene	40.0	0.00	16.50	41		16.40	41		1		40-140/20
Benzidine	40.0	0.00	2.83	7		2.86	7		1		5-105/20
Pyrene	40.0	0.00	21.40	54		21.90	55		2		40-140/20
3,3'-Dimethylbenzidine	40.0	0.00	2.80	7		2.50	6		11		5-105/20
Butyl benzyl phthalate	40.0	0.00	23.90	60		25.20	63		5		40-140/20
3,3'-Dichlorobenzidine	40.0	0.00	17.80	45		18.30	46		3		40-140/20
Benzo[a]anthracene	40.0	0.00	20.80	52		21.00	53		1		40-140/20
Chrysene	40.0	0.00	19.70	49		19.90	50		1		40-140/20
Bis(2-ethylhexyl) phthalate	40.0	0.00	26.30	66		26.80	67		2		40-140/20
Di-n-octyl phthalate	40.0	0.00	29.90	75		29.70	74		1		40-140/20
Benzo[b]fluoranthene	40.0	0.00	25.60	64		28.30	71		10		40-140/20
Benzo[k]fluoranthene	40.0	0.00	22.60	57		20.80	52		8		40-140/20
Benzo[a]pyrene	40.0	0.00	26.90	67		26.50	66		1		40-140/20
Indeno[1,2,3-cd]pyrene	40.0	0.00	24.40	61		25.10	63		3		40-140/20
Dibenz[a,h]anthracene	40.0	0.00	22.80	57		24.00	60		5		40-140/20
Benzo[g,h,i]perylene	40.0	0.00	22.10	55		22.20	56		0		40-140/20
1,4-Dioxane	40.0	0.00	18.90	47		19.20	48		2		15-110/30

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C0093.D Instrument ID: MSDC

Date Extracted: 09/19/13 Matrix: SOIL

Date Analyzed: 09/19/2013 Time Analyzed: 13:16

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS130919-02	09/19/2013	13:32
.	E13-09216-008MS	09/19/2013	13:49
.	E13-09216-008MSD	09/19/2013	14:05
SR-10-SW	E13-09216-008	09/19/2013	14:21
SR-10-SW	E13-09216-009	09/19/2013	14:38
BG-1	E13-09167-001	09/19/2013	14:54
091713-1	E13-09115-001	09/19/2013	15:10
WC-1	E13-09188-001	09/19/2013	15:26
BG-1A	E13-09192-001	09/19/2013	15:43
BG-1B	E13-09192-002	09/19/2013	15:59
BG-2	E13-09192-003	09/19/2013	16:15
FILL/8.5	E13-09204-006	09/19/2013	16:32
NJ130109	E13-09219-001	09/19/2013	16:48
AOC-12-3	E13-09198-003	09/19/2013	17:04

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B2149.D

Instrument ID: MSDB

Date Extracted: 09/20/13

Matrix: AQUEOUS

Date Analyzed: 09/23/2013

Time Analyzed: 17:48

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSA130920-01	09/23/2013	18:05
.	E13-09187-001MS	09/23/2013	18:23
.	E13-09187-001MSD	09/23/2013	18:40
MW-1	E13-09187-001	09/23/2013	18:59
MW-2	E13-09187-002	09/23/2013	19:17
MW-3	E13-09187-003	09/23/2013	19:34
MW-LEW	E13-09187-004	09/24/2013	08:42
FIELD_BL	E13-09187-005	09/24/2013	09:00
AOC-7-2	E13-09198-005	09/24/2013	09:17
AOC-7-4	E13-09198-006	09/24/2013	09:35
EX._WELL	E13-09198-007	09/24/2013	09:53

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B2140.D

Instrument ID: MSDB

Date Extracted: 09/20/13

Matrix: AQUEOUS

Date Analyzed: 09/23/2013

Time Analyzed: 15:32

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-1	E13-09187-001	09/23/2013	15:47
MW-2	E13-09187-002	09/23/2013	16:02
MW-3	E13-09187-003	09/23/2013	16:17
MW-LEW	E13-09187-004	09/23/2013	16:32
FIELD_BL	E13-09187-005	09/23/2013	16:47
AOC-7-2	E13-09198-005	09/23/2013	17:02
AOC-7-4	E13-09198-006	09/23/2013	17:17
EX._WELL	E13-09198-007	09/23/2013	17:32

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C9788.D

DFTPP Injection Date : 09/10/2013

Inst ID: MSDC

DFTPP Injection Time: 16:04

m/z	Ion Abudance Criteria	%Relative Abundance		
51	30.0 - 60.0% of mass 198	33.4		
68	Less than 2.0% of mass 69	0.0	(0.0	)1
69	Mass 69 relative abundance	38.5		
70	Less than 2.0% of mass 69	0.1	(0.2	)1
127	40.0 - 60.0% of mass 198	53.8		
197	Less than 1.0% of mass 198	0.0		
198	Base peak, 100% relative abundance	100.0		
199	5.0 - 9.0% of mass 198	6.5		
275	10.0 - 30.0% of mass 198	23.2		
365	Greater than 1.0% of mass 198	1.9		
441	Present, but less than mass 443	11.74	(71.8	)3
442	40.0 - 100.0% of mass 198	75.7		
443	17.0 - 23.0% of mass 442	16.4	(21.6	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN022.13	ICC001BNA1	C9789.D	09/10/2013	16:15
ABN024.13	ICC010BNA1	C9790.D	09/10/2013	16:31
ABN025.13	ICC020BNA1	C9791.D	09/10/2013	16:48
ABN026.13	ICC040BNA1	C9792.D	09/10/2013	17:04
ABN027.13	ICC080BNA1	C9793.D	09/10/2013	17:21
ABN028.13	ICC120BNA1	C9794.D	09/10/2013	17:37
ABN036.13	ICV040BNA1	C9795.D	09/10/2013	17:53
ABN035.13	ICC120BNA2	C9796.D	09/10/2013	18:10
ABN034.13	ICC080BNA2	C9797.D	09/10/2013	18:26
ABN033.13	ICC040BNA2	C9798.D	09/10/2013	18:42
ABN032.13	ICC020BNA2	C9799.D	09/10/2013	18:59
ABN031.13	ICC010BNA2	C9800.D	09/10/2013	19:15
ABN029.13	ICC001BNA2	C9801.D	09/10/2013	19:32
ABN037.13	ICV040BNA2	C9802.D	09/10/2013	19:48

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0083.D

DFTPP Injection Date : 09/19/2013

Inst ID: MSDC

DFTPP Injection Time: 10:57

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	40.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.5	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	40.0 - 60.0% of mass 198	56.0	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.6	
275	10.0 - 30.0% of mass 198	19.6	
365	Greater than 1.0% of mass 198	1.3	
441	Present, but less than mass 443	7.58	(73.6)3
442	40.0 - 100.0% of mass 198	49.5	
443	17.0 - 23.0% of mass 442	10.3	(20.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN036.13	CCV040BNA1	C0084.D	09/19/2013	11:07
ABN037.13	CCV040BNA2	C0085.D	09/19/2013	11:23
.	BLKS130919-02	C0093.D	09/19/2013	13:16
.	LCSS130919-02	C0094.D	09/19/2013	13:32
.	E13-09216-008MS	C0095.D	09/19/2013	13:49
.	E13-09216-008MSD	C0096.D	09/19/2013	14:05
SR-10-SW	E13-09216-008	C0097.D	09/19/2013	14:21
SR-10-SW	E13-09216-009	C0098.D	09/19/2013	14:38
BG-1	E13-09167-001	C0099.D	09/19/2013	14:54
091713-1	E13-09115-001	C0100.D	09/19/2013	15:10
WC-1	E13-09188-001	C0101.D	09/19/2013	15:26
BG-1A	E13-09192-001	C0102.D	09/19/2013	15:43
BG-1B	E13-09192-002	C0103.D	09/19/2013	15:59
BG-2	E13-09192-003	C0104.D	09/19/2013	16:15
FILL/8.5	E13-09204-006	C0105.D	09/19/2013	16:32
NJ130109	E13-09219-001	C0106.D	09/19/2013	16:48
AOC-12-3	E13-09198-003	C0107.D	09/19/2013	17:04

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B1923.D DFTPP Injection Date : 09/16/2013

Inst ID: MSDB DFTPP Injection Time: 07:16

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	31.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	33.3	
70	Less than 2.0% of mass 69	0.3	(0.8)1
127	40.0 - 60.0% of mass 198	45.9	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.4	
275	10.0 - 30.0% of mass 198	29.0	
365	Greater than 1.0% of mass 198	3.4	
441	Present, but less than mass 443	11.72	(70.0)3
442	40.0 - 100.0% of mass 198	83.7	
443	17.0 - 23.0% of mass 442	16.7	(20.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN061-13	ICC040BNA1	B1924.D	09/16/2013	07:26
ABN058-13	ICC001BNA1	B1925.D	09/16/2013	07:44
ABN059-13	ICC010BNA1	B1926.D	09/16/2013	08:02
ABN060-13	ICC020BNA1	B1927.D	09/16/2013	08:19
ABN062-13	ICC080BNA1	B1928.D	09/16/2013	08:37
ABN063-13	ICC120BNA1	B1929.D	09/16/2013	08:55
ABN069-13	ICC120BNA2	B1930.D	09/16/2013	09:12
ABN068-13	ICC080BNA2	B1931.D	09/16/2013	09:30
ABN067-13	ICC040BNA2	B1932.D	09/16/2013	09:48
ABN066-13	ICC020BNA2	B1933.D	09/16/2013	10:06
ABN065-13	ICC010BNA2	B1934.D	09/16/2013	10:23
ABN064-13	ICC001BNA2	B1935.D	09/16/2013	10:41
ABN070-13	ICV040BNA1	B1941.D	09/16/2013	12:14
ABN071-13	ICV040BNA2	B1942.D	09/16/2013	12:31

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B1923.D

DFTPP Injection Date : 09/16/2013

Inst ID: MSDB

DFTPP Injection Time: 07:16

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	31.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	33.3	
70	Less than 2.0% of mass 69	0.3	(0.8)1
127	40.0 - 60.0% of mass 198	45.9	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.4	
275	10.0 - 30.0% of mass 198	29.0	
365	Greater than 1.0% of mass 198	3.4	
441	Present, but less than mass 443	11.72	(70.0)3
442	40.0 - 100.0% of mass 198	83.7	
443	17.0 - 23.0% of mass 442	16.7	(20.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN047-13	ICC000.5SIM	B1936.D	09/16/2013	10:58
ABN045-13	ICC000.1SIM	B1937.D	09/16/2013	11:13
ABN046-13	ICC000.2SIM	B1938.D	09/16/2013	11:28
ABN048-13	ICC001SIM	B1939.D	09/16/2013	11:43
ABN049-13	ICC002SIM	B1940.D	09/16/2013	11:58
ABN050-13	ICV000.5SIM	B1943.D	09/16/2013	12:48

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B2112.D

DFTPP Injection Date : 09/23/2013

Inst ID: MSDB

DFTPP Injection Time: 07:56

m/z	Ion Abudance Criteria	%Relative Abundance		
51	30.0 - 60.0% of mass 198	52.1		
68	Less than 2.0% of mass 69	0.0	(0.0	)1
69	Mass 69 relative abundance	52.5		
70	Less than 2.0% of mass 69	0.4	(0.8	)1
127	40.0 - 60.0% of mass 198	54.7		
197	Less than 1.0% of mass 198	0.0		
198	Base peak, 100% relative abundance	100.0		
199	5.0 - 9.0% of mass 198	6.5		
275	10.0 - 30.0% of mass 198	25.0		
365	Greater than 1.0% of mass 198	2.5		
441	Present, but less than mass 443	5.85	(64.1	)3
442	40.0 - 100.0% of mass 198	41.1		
443	17.0 - 23.0% of mass 442	9.1	(22.2	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN070-13	CCV040BNA1	B2114.D	09/23/2013	08:23
ABN071-13	CCV040BNA2	B2115.D	09/23/2013	08:40
.	BLKA130920-01	B2149.D	09/23/2013	17:48
.	LCSA130920-01	B2150.D	09/23/2013	18:05
.	E13-09187-001MS	B2151.D	09/23/2013	18:23
.	E13-09187-001MSD	B2152.D	09/23/2013	18:40
MW-1	E13-09187-001	B2153.D	09/23/2013	18:59
MW-2	E13-09187-002	B2154.D	09/23/2013	19:17
MW-3	E13-09187-003	B2155.D	09/23/2013	19:34

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B2112.D

DFTPP Injection Date : 09/23/2013

Inst ID: MSDB

DFTPP Injection Time: 07:56

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	52.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	52.5	
70	Less than 2.0% of mass 69	0.4	(0.8)1
127	40.0 - 60.0% of mass 198	54.7	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.5	
275	10.0 - 30.0% of mass 198	25.0	
365	Greater than 1.0% of mass 198	2.5	
441	Present, but less than mass 443	5.85	(64.1)3
442	40.0 - 100.0% of mass 198	41.1	
443	17.0 - 23.0% of mass 442	9.1	(22.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN050-13	CCV000.5SIM	B2116.D	09/23/2013	08:57
.	BLKA130920-01	B2140.D	09/23/2013	15:32
MW-1	E13-09187-001	B2141.D	09/23/2013	15:47
MW-2	E13-09187-002	B2142.D	09/23/2013	16:02
MW-3	E13-09187-003	B2143.D	09/23/2013	16:17
MW-LEW	E13-09187-004	B2144.D	09/23/2013	16:32
FIELD_BL	E13-09187-005	B2145.D	09/23/2013	16:47
AOC-7-2	E13-09198-005	B2146.D	09/23/2013	17:02
AOC-7-4	E13-09198-006	B2147.D	09/23/2013	17:17
EX._WELL	E13-09198-007	B2148.D	09/23/2013	17:32

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B2156.D

DFTPP Injection Date : 09/24/2013

Inst ID: MSDB

DFTPP Injection Time: 07:40

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	46.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	48.3	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	40.0 - 60.0% of mass 198	54.7	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.0	
275	10.0 - 30.0% of mass 198	25.2	
365	Greater than 1.0% of mass 198	3.1	
441	Present, but less than mass 443	5.87	(70.3)3
442	40.0 - 100.0% of mass 198	45.4	
443	17.0 - 23.0% of mass 442	8.4	(18.4)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN070-13	CCV040BNA1	B2157.D	09/24/2013	07:52
ABN071-13	CCV040BNA2	B2158.D	09/24/2013	08:10
MW-LEW	E13-09187-004	B2160.D	09/24/2013	08:42
FIELD_BL	E13-09187-005	B2161.D	09/24/2013	09:00
AOC-7-2	E13-09198-005	B2162.D	09/24/2013	09:17
AOC-7-4	E13-09198-006	B2163.D	09/24/2013	09:35
EX._WELL	E13-09198-007	B2164.D	09/24/2013	09:53

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS2213.M
Title : BNA CALIBRATION METHOD
Last Update : Wed Sep 11 11:43:42 2013
Response Via : Initial Calibration

Calibration Files
1 =C9789.D 10 =C9790.D 20 =C9791.D
40 =C9792.D 80 =C9793.D 120 =C9794.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)	T	N-Nitrosodimethyl	0.871	0.866	0.794	0.781	0.783	0.772	0.811	5.55
3)	T	Pyridine	0.899	1.051	1.030	0.950	0.932	0.884	0.957	7.15
4)	S	2-Fluorophenol	1.322	1.439	1.410	1.397	1.407	1.379	1.392	2.85
5)	T	Benzaldehyde	1.082	0.856	1.077	0.861	0.939	1.066	0.980	11.03
6)	S	Phenol-d5	1.532	1.660	1.729	1.689	1.648	1.616	1.646	4.11
7)	MC	Phenol	1.634	1.727	1.626	1.739	1.628	1.710	1.677	3.19
8)	T	Aniline	0.787	0.728	0.692	0.682	0.649	0.625	0.694	8.37
9)	T	Bis(2-chloroethyl	1.033	0.923	0.862	0.899	0.872	0.827	0.903	7.94
10)	M	2-Chlorophenol	1.773	1.523	1.473	1.496	1.505	1.537	1.551	7.14
11)	T	1,3-Dichlorobenze	1.775	1.641	1.550	1.585	1.509	1.707	1.628	6.16
12)	MC	1,4-Dichlorobenze	1.699	1.641	1.574	1.656	1.582	1.429	1.597	5.93
13)	T	Benzyl alcohol	1.090	0.977	0.964	0.989	0.927	0.988	0.989	5.52
14)	T	1,2-Dichlorobenze	1.643	1.527	1.488	1.520	1.433	1.444	1.509	5.04
15)	T	2-Methylphenol	1.052	1.297	1.259	1.250	1.206	1.194	1.210	7.09
16)	T	Bis(2-chloroisopr	1.562	1.660	1.609	1.573	1.473	1.430	1.551	5.52
17)	T	4-Methylphenol	1.537	1.390	1.337	1.431	1.284	1.344	1.387	6.40
18)	MP	N-Nitrosodi-n-pro	1.129	0.980	0.983	0.960	0.923	0.877	0.975	8.73
19)	T	Acetophenone	2.157	1.887	1.809	1.920	1.743	1.818	1.889	7.70
20)	T	3-Methylphenol	1.542	1.396	1.333	1.431	1.285	1.343	1.388	6.56
21)	T	Hexachloroethane	0.586	0.550	0.515	0.523	0.507	0.513	0.533	5.66
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	ISTD							
24)	S	Nitrobenzene-d5	0.301	0.318	0.330	0.323	0.329	0.342	0.324	4.27
25)	T	Nitrobenzene	0.331	0.317	0.299	0.292	0.292	0.288	0.303	5.67
26)	T	Isophorone	0.719	0.650	0.630	0.645	0.589	0.611	0.641	6.97
27)	TC	2-Nitrophenol	0.195	0.182	0.180	0.191	0.173	0.193	0.186	4.65
28)	T	2,4-Dimethylpheno	0.365	0.328	0.323	0.324	0.315	0.321	0.329	5.44
29)	T	Bis(2-chloroethox	0.459	0.382	0.368	0.368	0.362	0.366	0.384	9.73
30)	T	Benzoic acid	0.099	0.094	0.092	0.093	0.115	0.094	0.098	8.92
31)	T	2,4-Dimethylanili	0.477	0.419	0.399	0.426	0.393	0.411	0.421	7.11
32)	TC	2,4-Dichloropheno	0.310	0.266	0.267	0.273	0.261	0.288	0.278	6.68
33)	M	1,2,4-Trichlorobe	0.328	0.299	0.300	0.306	0.283	0.305	0.304	4.78
34)	T	Naphthalene	1.236	1.142	1.079	1.068	1.015	0.994	1.089	8.16
35)	T	4-Chloroaniline	0.629	0.587	0.565	0.575	0.525	0.552	0.572	6.08
36)	T	4-Aminotoluene							0.000	-1.00
37)	TC	Hexachlorobutadie	0.173	0.154	0.149	0.154	0.147	0.155	0.155	6.15
38)	T	Caprolactam	0.110	0.130	0.125	0.121	0.110	0.117	0.119	6.75
39)	T	2-Aminotoluene							0.000	-1.00
40)	MC	4-Chloro-3-methyl	0.347	0.281	0.282	0.278	0.265	0.292	0.291	9.93
41)	T	2-Methylnaphthale	0.813	0.760	0.668	0.686	0.665	0.708	0.717	8.19
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	ISTD							
44)	TP	Hexachlorocyclope	0.136	0.148	0.148	0.157	0.163	0.177	0.155	9.13
45)	TC	2,4,6-Trichloroph	0.372	0.317	0.316	0.326	0.321	0.348	0.333	6.68
46)	T	2,4,5-Trichloroph	0.405	0.342	0.350	0.366	0.354	0.385	0.367	6.56
47)	S	2-Fluorobiphenyl	1.328	1.335	1.376	1.344	1.316	1.414	1.352	2.69
48)	T	1,1'-Biphenyl	1.596	1.358	1.397	1.413	1.314	1.462	1.423	6.91
49)	T	2-Chloronaphthale	1.210	1.035	1.060	1.070	1.008	1.126	1.085	6.70
50)	T	2-Nitroaniline	0.272	0.239	0.238	0.238	0.237	0.253	0.246	5.64
51)	T	Dimethyl phthalat	1.287	1.133	1.141	1.172	1.071	1.213	1.169	6.34

52)	T	2,6-Dinitrotoluen	0.271	0.255	0.252	0.260	0.263	0.284	0.264	4.44
53)	T	Acenaphthylene	1.908	1.673	1.684	1.691	1.571	1.636	1.694	6.73
54)	T	3-Nitroaniline	0.369	0.304	0.288	0.295	0.276	0.326	0.310	10.88
55)	MC	Acenaphthene	1.329	1.125	1.099	1.112	1.094	1.090	1.141	8.13
56)	TP	2,4-Dinitrophenol	0.054	0.051	0.050	0.062	0.068	0.057	0.057	11.95
57)	MP	4-Nitrophenol	0.155	0.160	0.155	0.162	0.159	0.152	0.157	2.38
58)	M	2,4-Dinitrotoluen	0.306	0.285	0.296	0.321	0.328	0.346	0.314	7.08
59)	T	Dibenzofuran	1.703	1.485	1.490	1.506	1.451	1.585	1.537	6.03
60)	T	Diethyl phthalate	1.310	1.090	1.087	1.121	1.038	1.189	1.139	8.54
61)	T	Fluorene	1.418	1.230	1.224	1.232	1.172	1.307	1.264	6.87
62)	T	4-Chlorophenyl ph	0.662	0.556	0.562	0.560	0.560	0.605	0.584	7.23
63)	T	4-Nitroaniline	0.319	0.294	0.304	0.312	0.318	0.323	0.311	3.47
64)		1,2,4,5-Tetrachlo	0.630	0.512	0.515	0.538	0.512	0.564	0.545	8.46
65)	T	2,3,4,6-Tetrachlo	0.256	0.252	0.266	0.260	0.274	0.284	0.265	4.54
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.064	0.060	0.070	0.066	0.074	0.085	0.070	12.79
68)	TC	N-Nitrosodiphenyl	0.605	0.544	0.537	0.564	0.578	0.563	0.565	4.35
69)	T	1,2-Diphenylhydra	0.874	0.804	0.771	0.815	0.792	0.802	0.810	4.30
70)	S	2,4,6-Tribromophe	0.129	0.128	0.126	0.127	0.125	0.132	0.128	2.11
71)	T	4-Bromophenyl phe	0.241	0.211	0.202	0.210	0.211	0.222	0.216	6.32
72)	T	Hexachlorobenzene	0.272	0.228	0.220	0.232	0.234	0.252	0.240	7.99
73)	T	Atrazine	0.216	0.206	0.199	0.206	0.205	0.211	0.207	2.83
74)	MC	Pentachlorophenol	0.113	0.134	0.133	0.140	0.143	0.154	0.136	10.10
75)	T	Phenanthrene	1.287	1.056	1.013	1.040	1.042	1.057	1.083	9.38
76)	T	Anthracene	1.223	1.072	1.020	1.072	1.052	1.097	1.089	6.47
77)	T	Carbazole	1.195	1.042	0.993	1.001	0.982	1.006	1.037	7.75
78)	T	Di-n-butyl phthal	1.328	1.193	1.135	1.191	1.178	1.194	1.203	5.42
79)	TC	Fluoranthene	1.347	1.146	1.091	1.112	1.071	1.097	1.144	8.97
80)	T	Benzidine	0.636	0.662	0.812	0.715	0.831	0.697	0.725	10.98
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.487	1.237	1.230	1.292	1.308	1.540	1.349	9.80
84)	S	Terphenyl-d14	0.963	0.997	1.018	1.050	1.076	1.257	1.060	9.83
85)	T	3,3'-Dimethylbenz	1.110	0.829	1.062	0.952	1.083	1.063	1.016	10.47
86)	T	Butyl benzyl phth	0.588	0.517	0.512	0.548	0.545	0.606	0.553	6.78
87)	T	3,3'-Dichlorobenz	0.354	0.386	0.369	0.364	0.328	0.277	0.346	11.22
88)	T	Benzo[a]anthracen	1.262	1.044	1.008	1.048	1.013	1.105	1.080	8.85
89)	T	Chrysene	1.194	1.008	0.985	1.014	0.990	1.029	1.037	7.61
90)	T	Bis(2-ethylhexyl)	0.722	0.673	0.667	0.724	0.735	0.842	0.727	8.64
91)	T	3,3'-Dimethoxyben							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.768	1.763	1.825	1.835	1.633	1.990	1.802	6.48
94)	T	Benzo[b]fluoranth	1.639	1.539	1.587	1.597	1.581	1.753	1.616	4.59
95)	T	Benzo[k]fluoranth	1.475	1.546	1.507	1.421	1.483	1.522	1.492	2.90
96)	TC	Benzo[a]pyrene	1.616	1.432	1.371	1.442	1.414	1.489	1.461	5.83
97)	T	Indeno[1,2,3-cd]p	1.695	1.492	1.647	1.816	1.795	1.878	1.720	8.13
98)	T	Dibenz[a,h]anthra	1.346	1.226	1.315	1.488	1.486	1.574	1.406	9.31
99)	T	Benzo[g,h,i]peryl	1.424	1.300	1.374	1.514	1.507	1.578	1.449	7.08

(#) = Out of Range

CS2213.M Wed Sep 11 11:45:13 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-10-13\
Data File : C9795.D
Acq On : 10 Sep 2013 17:53
Operator : EDM
Sample : ABN036.13,ICV040BNA1,S,30.0g,0.0.5
Misc : NA,09/10/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 10 18:10:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Sep 10 18:08:15 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00
2	T	N-Nitrosodimethylamine	0.811	0.774	4.6	107	-0.01
3	T	Pyridine	0.957	0.977	-2.1	111	0.00
4	S	2-Fluorophenol	1.392	1.393	-0.1	108	0.00
5	T	Benzaldehyde	0.980	0.866	11.6	113	0.00
6	S	Phenol-d5	1.646	1.634	0.7	105	0.00
7	MC	Phenol	1.677	1.614	3.8	100	0.00
8	T	Aniline	0.694	0.623	10.2	99	0.00
9	T	Bis(2-chloroethyl) ether	0.903	0.817	9.5	98	0.00
10	M	2-Chlorophenol	1.551	1.469	5.3	106	0.00
11	T	1,3-Dichlorobenzene	1.628	1.596	2.0	109	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.582	0.9	103	0.00
13	T	Benzyl alcohol	0.989	0.946	4.3	103	0.00
14	T	1,2-Dichlorobenzene	1.509	1.503	0.4	107	0.00
15	T	2-Methylphenol	1.210	1.199	0.9	104	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.456	6.1	100	0.00
17	T	4-Methylphenol	1.387	1.364	1.7	103	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	0.893	8.4	101	-0.01
19	T	Acetophenone	1.889	1.841	2.5	104	0.00
20	T	3-Methylphenol	1.388	1.362	1.9	103	0.00
21	T	Hexachloroethane	0.533	0.508	4.7	105	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	109	0.00
24	S	Nitrobenzene-d5	0.324	0.302	6.8	102	0.00
25	T	Nitrobenzene	0.303	0.283	6.6	105	0.00
26	T	Isophorone	0.641	0.596	7.0	100	-0.01
27	TC	2-Nitrophenol	0.186	0.185	0.5	105	0.00
28	T	2,4-Dimethylphenol	0.329	0.314	4.6	105	0.00
29	T	Bis(2-chloroethoxy) methane	0.384	0.363	5.5	107	0.00
30	T	Benzoic acid	0.098	0.088	10.2	102	-0.02
31	T	2,4-Dimethylaniline	0.421	0.350	16.9	89	0.00
32	TC	2,4-Dichlorophenol	0.278	0.268	3.6	107	-0.01
33	M	1,2,4-Trichlorobenzene	0.304	0.305	-0.3	108	0.00
34	T	Naphthalene	1.089	1.042	4.3	106	0.00
35	T	4-Chloroaniline	0.572	0.530	7.3	100	0.00
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.161	-3.9	113	0.00
38	T	Caprolactam	0.119	0.117	1.7	104	-0.02
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.273	6.2	107	-0.01
41	T	2-Methylnaphthalene	0.717	0.678	5.4	108	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00
44	TP	Hexachlorocyclopentadiene	0.155	0.139	10.3	96	0.00
45	TC	2,4,6-Trichlorophenol	0.333	0.367	-10.2	122	0.00

46	T	2,4,5-Trichlorophenol	0.367	0.370	-0.8	109	0.00
47	S	2-Fluorobiphenyl	1.352	1.335	1.3	108	0.00
48	T	1,1'-Biphenyl	1.423	1.415	0.6	108	0.00
49	T	2-Chloronaphthalene	1.085	1.069	1.5	108	0.00
50	T	2-Nitroaniline	0.246	0.238	3.3	108	0.00
51	T	Dimethyl phthalate	1.169	1.182	-1.1	109	0.00
52	T	2,6-Dinitrotoluene	0.264	0.280	-6.1	116	0.00
53	T	Acenaphthylene	1.694	1.681	0.8	108	0.00
54	T	3-Nitroaniline	0.310	0.295	4.8	108	-0.01
55	MC	Acenaphthene	1.141	1.110	2.7	108	0.00
56	TP	2,4-Dinitrophenol	0.057	0.061	-7.0	106	0.00
57	MP	4-Nitrophenol	0.157	0.161	-2.5	107	0.00
58	M	2,4-Dinitrotoluene	0.314	0.331	-5.4	112	0.00
59	T	Dibenzofuran	1.537	1.528	0.6	110	0.00
60	T	Diethyl phthalate	1.139	1.127	1.1	109	0.00
61	T	Fluorene	1.264	1.275	-0.9	112	0.00
62	T	4-Chlorophenyl phenyl ether	0.584	0.589	-0.9	114	0.00
63	T	4-Nitroaniline	0.311	0.319	-2.6	111	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.545	0.530	2.8	107	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.282	-6.4	117	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00
67	T	4,6-Dinitro-2-methylphenol	0.070	0.076	-8.6	127	-0.01
68	TC	N-Nitrosodiphenylamine	0.565	0.565	0.0	111	0.00
69	T	1,2-Diphenylhydrazine	0.810	0.775	4.3	106	0.00
70	S	2,4,6-Tribromophenol	0.128	0.130	-1.6	114	0.00
71	T	4-Bromophenyl phenyl ether	0.216	0.215	0.5	114	0.00
72	T	Hexachlorobenzene	0.240	0.237	1.3	114	0.00
73	T	Atrazine	0.207	0.183	11.6	99	-0.01
74	MC	Pentachlorophenol	0.136	0.145	-6.6	116	0.00
75	T	Phenanthrene	1.083	1.057	2.4	113	0.00
76	T	Anthracene	1.089	1.064	2.3	110	0.00
77	T	Carbazole	1.037	1.054	-1.6	117	0.00
78	T	Di-n-butyl phthalate	1.203	1.219	-1.3	114	0.00
79	TC	Fluoranthene	1.144	1.162	-1.6	116	0.00
80	T	Benzidine	0.725	0.625	13.8	108	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	123	0.00
83	M	Pyrene	1.349	1.271	5.8	121	0.00
84	S	Terphenyl-d14	1.060	1.040	1.9	122	0.00
85	T	3,3'-Dimethylbenzidine	1.016	0.818	19.5	121	0.02
86	T	Butyl benzyl phthalate	0.553	0.530	4.2	119	0.01
87	T	3,3'-Dichlorobenzidine	0.346	0.363	-4.9	123	0.00
88	T	Benzo[a]anthracene	1.080	1.088	-0.7	128	0.00
89	T	Chrysene	1.037	1.006	3.0	122	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.726	0.1	124	0.00
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	119	0.00
93	TC	Di-n-octyl phthalate	1.802	1.962	-8.9	128	0.00
94	T	Benzo[b]fluoranthene	1.616	1.595	1.3	119	-0.01
95	T	Benzo[k]fluoranthene	1.492	1.634	-9.5	137	-0.01
96	TC	Benzo[a]pyrene	1.461	1.422	2.7	118	-0.02
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.712	0.5	113	-0.05
98	T	Dibenz[a,h]anthracene	1.406	1.453	-3.3	117	-0.04
99	T	Benzo[g,h,i]perylene	1.449	1.437	0.8	113	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Wed Sep 11 11:40:33 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : C0084.D
Acq On : 19 Sep 2013 11:07
Operator : EDM
Sample : ABN036.13,CCV040BNA1
Misc : NA,09/19/13,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Sep 19 11:19:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	143	0.00
2	T	N-Nitrosodimethylamine	0.811	0.676	16.6	124	0.00
3	T	Pyridine	0.957	0.828	13.5	124	0.00
4	S	2-Fluorophenol	1.392	1.331	4.4	136	0.00
5	T	Benzaldehyde	0.980	0.848	13.5	139	0.00
6	S	Phenol-d5	1.646	1.589	3.5	134	0.00
7	MC	Phenol	1.677	1.689	-0.7	139	0.00
8	T	Aniline	0.694	0.639	7.9	134	0.00
9	T	Bis(2-chloroethyl) ether	0.903	0.880	2.5	140	0.00
10	M	2-Chlorophenol	1.551	1.463	5.7	140	0.00
11	T	1,3-Dichlorobenzene	1.628	1.517	6.8	137	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.521	4.8	131	0.00
13	T	Benzyl alcohol	0.989	0.830	16.1	120	0.00
14	T	1,2-Dichlorobenzene	1.509	1.418	6.0	133	0.00
15	T	2-Methylphenol	1.210	1.253	-3.6	143	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.551	1.533	1.2	139	0.00
17	T	4-Methylphenol	1.387	1.316	5.1	131	0.00
18	MP	N-Nitrosodi-n-propylamine	0.975	0.939	3.7	140	-0.01
19	T	Acetophenone	1.889	1.747	7.5	130	-0.01
20	T	3-Methylphenol	1.388	1.321	4.8	132	0.00
21	T	Hexachloroethane	0.533	0.506	5.1	138	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	136	-0.01
24	S	Nitrobenzene-d5	0.324	0.329	-1.5	138	0.00
25	T	Nitrobenzene	0.303	0.294	3.0	137	0.00
26	T	Isophorone	0.641	0.617	3.7	130	-0.02
27	TC	2-Nitrophenol	0.186	0.192	-3.2	136	0.00
28	T	2,4-Dimethylphenol	0.329	0.314	4.6	131	-0.01
29	T	Bis(2-chloroethoxy) methane	0.384	0.370	3.6	136	-0.01
30	T	Benzoic acid	0.098	0.106	-8.2	154	-0.02
31	T	2,4-Dimethylaniline	0.421	0.378	10.2	120	-0.02
32	TC	2,4-Dichlorophenol	0.278	0.262	5.8	130	-0.02
33	M	1,2,4-Trichlorobenzene	0.304	0.296	2.6	131	-0.01
34	T	Naphthalene	1.089	1.056	3.0	134	-0.01
35	T	4-Chloroaniline	0.572	0.551	3.7	130	-0.01
36	T	4-Aminotoluene					
37	TC	Hexachlorobutadiene	0.155	0.154	0.6	136	-0.02
38	T	Caprolactam	0.119	0.102	14.3	114	-0.03
39	T	2-Aminotoluene					
40	MC	4-Chloro-3-methylphenol	0.291	0.258	11.3	125	-0.02
41	T	2-Methylnaphthalene	0.717	0.632	11.9	125	-0.03
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	126	-0.04
44	TP	Hexachlorocyclopentadiene	0.155	0.139	10.3	111	-0.02
45	TC	2,4,6-Trichlorophenol	0.333	0.328	1.5	126	-0.03

46	T	2,4,5-Trichlorophenol	0.367	0.359	2.2	123	-0.03
47	S	2-Fluorobiphenyl	1.352	1.331	1.6	124	-0.03
48	T	1,1'-Biphenyl	1.423	1.354	4.8	120	-0.04
49	T	2-Chloronaphthalene	1.085	1.114	-2.7	131	-0.04
50	T	2-Nitroaniline	0.246	0.258	-4.9	136	-0.04
51	T	Dimethyl phthalate	1.169	1.142	2.3	122	-0.04
52	T	2,6-Dinitrotoluene	0.264	0.279	-5.7	134	-0.04
53	T	Acenaphthylene	1.694	1.630	3.8	121	-0.04
54	T	3-Nitroaniline	0.310	0.290	6.5	123	-0.05
55	MC	Acenaphthene	1.141	1.137	0.4	128	-0.05
56	TP	2,4-Dinitrophenol	0.057	0.057	0.0	114	-0.04
57	MP	4-Nitrophenol	0.157	0.127	19.1	98	-0.05
58	M	2,4-Dinitrotoluene	0.314	0.312	0.6	122	-0.05
59	T	Dibenzofuran	1.537	1.516	1.4	126	-0.05
60	T	Diethyl phthalate	1.139	1.062	6.8	119	-0.06
61	T	Fluorene	1.264	1.206	4.6	123	-0.06
62	T	4-Chlorophenyl phenyl ether	0.584	0.552	5.5	124	-0.06
63	T	4-Nitroaniline	0.311	0.288	7.4	116	-0.07
64		1,2,4,5-Tetrachlorobenzene	0.545	0.564	-3.5	132	-0.03
65	T	2,3,4,6-Tetrachlorophenol	0.265	0.245	7.5	118	-0.05
66	I	Phenanthrene-d10	1.000	1.000	0.0	121	-0.09
67	T	4,6-Dinitro-2-methylphenol	0.070	0.078	-11.4	142	-0.07
68	TC	N-Nitrosodiphenylamine	0.565	0.568	-0.5	122	-0.07
69	T	1,2-Diphenylhydrazine	0.810	0.745	8.0	111	-0.07
70	S	2,4,6-Tribromophenol	0.128	0.135	-5.5	130	-0.07
71	T	4-Bromophenyl phenyl ether	0.216	0.224	-3.7	130	-0.07
72	T	Hexachlorobenzene	0.240	0.241	-0.4	126	-0.09
73	T	Atrazine	0.207	0.195	5.8	115	-0.09
74	MC	Pentachlorophenol	0.136	0.115	15.4	100	-0.09
75	T	Phenanthrene	1.083	1.071	1.1	125	-0.09
76	T	Anthracene	1.089	1.049	3.7	119	-0.10
77	T	Carbazole	1.037	0.939	9.5	114	-0.10
78	T	Di-n-butyl phthalate	1.203	1.156	3.9	118	-0.12
79	TC	Fluoranthene	1.144	0.989	13.5	108	-0.14
80	T	Benzidine	0.725	0.581	19.9	117	-0.13
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	96	-0.12
83	M	Pyrene	1.349	1.449	-7.4	108	-0.16
84	S	Terphenyl-d14	1.060	1.149	-8.4	105	-0.17
85	T	3,3'-Dimethylbenzidine	1.016	0.848	16.5	112	-0.16
86	T	Butyl benzyl phthalate	0.553	0.573	-3.6	101	-0.19
87	T	3,3'-Dichlorobenzidine	0.346	0.368	-6.4	98	-0.12
88	T	Benzo[a]anthracene	1.080	1.078	0.2	99	-0.12
89	T	Chrysene	1.037	1.032	0.5	98	-0.12
90	T	Bis(2-ethylhexyl) phthalate	0.727	0.703	3.3	94	-0.13
91	T	3,3'-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	88	-0.12
93	TC	Di-n-octyl phthalate	1.802	1.973	-9.5	95	-0.13
94	T	Benzo[b]fluoranthene	1.616	1.542	4.6	85	-0.13
95	T	Benzo[k]fluoranthene	1.492	1.736	-16.4	107	-0.13
96	TC	Benzo[a]pyrene	1.461	1.448	0.9	88	-0.13
97	T	Indeno[1,2,3-cd]pyrene	1.720	1.872	-8.8	91	-0.15
98	T	Dibenz[a,h]anthracene	1.406	1.554	-10.5	92	-0.14
99	T	Benzo[g,h,i]perylene	1.449	1.559	-7.6	91	-0.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2213.M Thu Sep 19 12:38:41 2013 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : B2114.D
Acq On : 23 Sep 2013 8:23
Operator : DANA
Sample : ABN070-13,CCV040BNA1,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 23 08:42:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	54	-0.02
2	T	N-Nitrosodimethylamine	0.651	0.660	-1.4	53	-0.02
3	T	Pyridine	0.827	0.809	2.2	52	-0.02
4	S	2-Fluorophenol	1.179	1.169	0.8	53	-0.01
5	T	Benzaldehyde	0.884	0.758	14.3	57	-0.02
6	S	Phenol-d5	1.475	1.475	0.0	55	-0.02
7	MC	Phenol	1.549	1.471	5.0	55	-0.02
8	T	Aniline	0.668	0.685	-2.5	64	-0.02
9	T	Bis(2-chloroethyl) ether	0.784	0.726	7.4	51	-0.02
10	M	2-Chlorophenol	1.480	1.432	3.2	54	-0.02
11	T	1,3-Dichlorobenzene	1.554	1.524	1.9	54	-0.02
12	MC	1,4-Dichlorobenzene	1.607	1.561	2.9	54	-0.01
13	T	Benzyl alcohol	0.862	0.819	5.0	54	-0.02
14	T	1,2-Dichlorobenzene	1.508	1.461	3.1	55	-0.02
15	T	2-Methylphenol	1.186	1.158	2.4	57	-0.02
16	T	Bis(2-chloroisopropyl) ethe	1.338	1.321	1.3	55	-0.02
17	T	4-Methylphenol	1.237	1.249	-1.0	56	-0.02
18	MP	N-Nitrosodi-n-propylamine	0.922	0.952	-3.3	58	-0.02
19	T	Acetophenone	1.772	1.822	-2.8	59	-0.02
20	T	3-Methylphenol	1.236	1.249	-1.1	56	-0.02
21	T	Hexachloroethane	0.547	0.565	-3.3	55	-0.02
22	S	1,4-Dioxane-D8	0.305	0.337	-10.5	55	-0.02
23	I	Naphthalene-d8	1.000	1.000	0.0	57	-0.02
24	S	Nitrobenzene-d5	0.342	0.358	-4.7	60	-0.02
25	T	Nitrobenzene	0.322	0.320	0.6	59	-0.02
26	T	Isophorone	0.615	0.626	-1.8	60	-0.02
27	TC	2-Nitrophenol	0.182	0.182	0.0	55	-0.02
28	T	2,4-Dimethylphenol	0.345	0.371	-7.5	64	-0.01
29	T	Bis(2-chloroethoxy) methane	0.365	0.349	4.4	55	-0.02
30	T	Benzoic acid	0.206	0.219	-6.3	61	-0.02
31	T	2,4-Dimethylaniline	0.393	0.378	3.8	68	-0.02
32	TC	2,4-Dichlorophenol	0.297	0.288	3.0	55	-0.02
33	M	1,2,4-Trichlorobenzene	0.341	0.328	3.8	56	-0.02
34	T	Naphthalene	1.077	1.072	0.5	59	-0.02
35	T	4-Chloroaniline	0.547	0.579	-5.9	61	-0.02
36	T	4-Aminotoluene	0.554	0.530	4.3	60	-0.02
37	TC	Hexachlorobutadiene	0.209	0.200	4.3	55	-0.02
38	T	Caprolactam	0.106	0.118	-11.3	64	-0.02
39	T	2-Aminotoluene	0.554	0.530	4.3	60	-0.02
40	MC	4-Chloro-3-methylphenol	0.296	0.338	-14.2	67	-0.02
41	T	2-Methylnaphthalene	0.673	0.704	-4.6	64	-0.02
43	I	Acenaphthene-d10	1.000	1.000	0.0	71	-0.02
44	TP	Hexachlorocyclopentadiene	0.204	0.211	-3.4	64	-0.02
45	TC	2,4,6-Trichlorophenol	0.390	0.355	9.0	61	-0.02

46	T	2,4,5-Trichlorophenol	0.419	0.374	10.7	62	-0.02
47	S	2-Fluorobiphenyl	1.446	1.312	9.3	62	-0.02
48	T	1,1'-Biphenyl	1.550	1.385	10.6	63	-0.02
49	T	2-Chloronaphthalene	1.154	1.055	8.6	64	-0.02
50	T	2-Nitroaniline	0.273	0.307	-12.5	73	-0.02
51	T	Dimethyl phthalate	1.289	1.235	4.2	69	-0.02
52	T	2,6-Dinitrotoluene	0.283	0.294	-3.9	67	-0.02
53	T	Acenaphthylene	1.642	1.703	-3.7	74	-0.02
54	T	3-Nitroaniline	0.281	0.318	-13.2	74	-0.02
55	MC	Acenaphthene	1.127	1.130	-0.3	73	-0.02
56	TP	2,4-Dinitrophenol	0.072	0.084	-16.7	90	-0.02
57	MP	4-Nitrophenol	0.173	0.171	1.2	66	-0.02
58	M	2,4-Dinitrotoluene	0.368	0.395	-7.3	79	-0.02
59	T	Dibenzofuran	1.634	1.591	2.6	74	-0.02
60	T	Diethyl phthalate	1.267	1.315	-3.8	80	-0.02
61	T	Fluorene	1.304	1.333	-2.2	79	-0.02
62	T	4-Chlorophenyl phenyl ether	0.737	0.623	15.5	61	-0.02
63	T	4-Nitroaniline	0.303	0.360	-18.8	82	-0.02
64		1,2,4,5-Tetrachlorobenzene	0.648	0.560	13.6	59	-0.02
65	T	2,3,4,6-Tetrachlorophenol	0.351	0.301	14.2	64	-0.02
66	I	Phenanthrene-d10	1.000	1.000	0.0	83	-0.02
67	T	4,6-Dinitro-2-methylphenol	0.101	0.116	-14.9	95	-0.02
68	TC	N-Nitrosodiphenylamine	0.664	0.587	11.6	68	-0.02
69	T	1,2-Diphenylhydrazine	0.756	0.854	-13.0	90	-0.02
70	S	2,4,6-Tribromophenol	0.161	0.137	14.9	64	-0.02
71	T	4-Bromophenyl phenyl ether	0.264	0.229	13.3	63	-0.02
72	T	Hexachlorobenzene	0.241	0.238	1.2	80	-0.02
73	T	Atrazine	0.208	0.216	-3.8	98	-0.01
74	MC	Pentachlorophenol	0.157	0.155	1.3	76	-0.02
75	T	Phenanthrene	1.044	1.072	-2.7	88	-0.02
76	T	Anthracene	1.029	1.060	-3.0	85	-0.02
77	T	Carbazole	0.995	1.004	-0.9	82	-0.02
78	T	Di-n-butyl phthalate	1.103	1.214	-10.1	94	-0.02
79	TC	Fluoranthene	1.011	1.133	-12.1	92	-0.02
80	T	Benzidine	0.701	0.673	4.0	75	-0.02
82	I	Chrysene-d12	1.000	1.000	0.0	83	-0.04
83	M	Pyrene	1.226	1.305	-6.4	90	-0.03
84	S	Terphenyl-d14	1.055	1.036	1.8	86	-0.03
85	T	3,3'-Dimethylbenzidine	0.909	0.774	14.9	76	-0.03
86	T	Butyl benzyl phthalate	0.488	0.561	-15.0	95	-0.03
87	T	3,3'-Dichlorobenzidine	0.334	0.328	1.8	84	-0.04
88	T	Benzo[a]anthracene	1.001	1.057	-5.6	85	-0.04
89	T	Chrysene	1.013	1.025	-1.2	85	-0.04
90	T	Bis(2-ethylhexyl) phthalate	0.632	0.733	-16.0	91	-0.04
92	I	Perylene-d12	1.000	1.000	0.0	77	-0.06
93	TC	Di-n-octyl phthalate	1.391	1.587	-14.1	79	-0.05
94	T	Benzo[b]fluoranthene	1.231	1.361	-10.6	84	-0.06
95	T	Benzo[k]fluoranthene	1.654	1.606	2.9	77	-0.06
96	TC	Benzo[a]pyrene	1.262	1.434	-13.6	79	-0.06
97	T	Indeno[1,2,3-cd]pyrene	1.578	1.716	-8.7	78	-0.08
98	T	Dibenz[a,h]anthracene	1.308	1.420	-8.6	80	-0.07
99	T	Benzo[g,h,i]perylene	1.504	1.462	2.8	76	-0.09
100	I	1,4-Dioxane-d8	1.000	1.000	0.0	51	-0.30
101	T	1,4-Dioxane	1.342	1.275	5.0	51	-0.02

(#) = Out of Range

BD1613.M Mon Sep 23 15:31:50 2013 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : B2116.D
Acq On : 23 Sep 2013 8:57
Operator : DANA
Sample : ABN050-13,CCV000.5SIM,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 23 09:19:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	71	-0.01
23	I	Naphthalene-d8	1.000	1.000	0.0	70	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	63	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	61	0.00
72	T	Hexachlorobenzene	0.419	0.367	12.4	65	0.00
74	MC	Pentachlorophenol	0.063	0.066	-4.8	61	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	53	0.00
88	T	Benzo[a]anthracene	1.662	1.610	3.1	53	0.00
92	I	Perylene-d12	1.000	1.000	0.0	77	-0.01
94	T	Benzo[b]fluoranthene	0.802	0.817	-1.9	80	-0.01
95	T	Benzo[k]fluoranthene	1.847	1.709	7.5	68	-0.01
96	TC	Benzo[a]pyrene	1.184	1.087	8.2	68	-0.01
97	T	Indeno[1,2,3-cd]pyrene	0.769	0.795	-3.4	78	-0.02
98	T	Dibenz[a,h]anthracene	0.607	0.623	-2.6	83	-0.03

(#) = Out of Range

BSIM1613.M Mon Sep 23 15:33:17 2013 MSD_B

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BD1613.M
Title : BNA CALIBRATION METHOD
Last Update : Thu Sep 19 09:01:37 2013
Response Via : Initial Calibration

Calibration Files
1 =B1925.D 10 =B1926.D 20 =B1927.D
40 =B1924.D 80 =B1928.D 120 =B1929.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.709	0.681	0.607	0.666	0.595	0.649	0.651	6.73
3)	T	Pyridine	0.858	0.854	0.807	0.845	0.777	0.822	0.827	3.80
4)	S	2-Fluorophenol	1.144	1.138	1.151	1.181	1.190	1.272	1.179	4.24
5)	T	Benzaldehyde	0.838	0.874	0.847	0.712	1.016	1.019	0.884	13.25
6)	S	Phenol-d5	1.387	1.451	1.467	1.450	1.516	1.578	1.475	4.44
7)	MC	Phenol	1.778	1.533	1.427	1.434	1.489	1.633	1.549	8.73
8)	T	Aniline	0.802	0.735	0.691	0.580	0.668	0.534	0.668	14.81
9)	T	Bis(2-chloroethyl	0.846	0.791	0.740	0.761	0.741	0.828	0.784	5.73
10)	M	2-Chlorophenol	1.635	1.483	1.415	1.425	1.406	1.513	1.480	5.89
11)	T	1,3-Dichlorobenze	1.789	1.620	1.501	1.511	1.429	1.472	1.554	8.47
12)	MC	1,4-Dichlorobenze	1.849	1.713	1.551	1.550	1.474	1.506	1.607	8.98
13)	T	Benzyl alcohol	0.918	0.861	0.836	0.810	0.844	0.903	0.862	4.80
14)	T	1,2-Dichlorobenze	1.749	1.564	1.467	1.438	1.398	1.432	1.508	8.67
15)	T	2-Methylphenol	1.319	1.176	1.134	1.101	1.157	1.230	1.186	6.59
16)	T	Bis(2-chloroisopr	1.512	1.391	1.308	1.285	1.261	1.268	1.338	7.31
17)	T	4-Methylphenol	1.334	1.246	1.229	1.200	1.192	1.220	1.237	4.15
18)	MP	N-Nitrosodi-n-pro	1.037	0.929	0.904	0.876	0.885	0.903	0.922	6.42
19)	T	Acetophenone	2.021	1.791	1.720	1.651	1.701	1.746	1.772	7.39
20)	T	3-Methylphenol	1.334	1.246	1.229	1.199	1.192	1.219	1.236	4.18
21)	T	Hexachloroethane	0.591	0.574	0.524	0.550	0.517	0.527	0.547	5.48
22)	S	1,4-Dioxane-D8	0.310	0.302	0.308	0.332	0.276	0.301	0.305	5.84
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.324	0.323	0.332	0.341	0.349	0.381	0.342	6.33
25)	T	Nitrobenzene	0.413	0.320	0.309	0.310	0.281	0.302	0.322	14.40
26)	T	Isophorone	0.710	0.629	0.614	0.593	0.556	0.590	0.615	8.55
27)	TC	2-Nitrophenol	0.172	0.179	0.184	0.189	0.180	0.187	0.182	3.32
28)	T	2,4-Dimethylpheno	0.383	0.353	0.347	0.334	0.318	0.333	0.345	6.49
29)	T	Bis(2-chloroethox	0.419	0.381	0.364	0.361	0.332	0.333	0.365	8.93
30)	T	Benzoic acid	0.175	0.192	0.182	0.206	0.249	0.229	0.206	13.94
31)	T	2,4-Dimethylanili	0.452	0.416	0.409	0.320	0.375	0.388	0.393	11.34
32)	TC	2,4-Dichloropheno	0.321	0.302	0.296	0.297	0.276	0.290	0.297	4.96
33)	M	1,2,4-Trichlorobe	0.396	0.352	0.341	0.337	0.305	0.315	0.341	9.34
34)	T	Naphthalene	1.356	1.110	1.056	1.039	0.922	0.980	1.077	14.02
35)	T	4-Chloroaniline	0.647	0.444	0.573	0.542	0.534	0.542	0.547	11.95
36)	T	4-Aminotoluene	0.646	0.579	0.563	0.502	0.494	0.538	0.554	10.13
37)	TC	Hexachlorobutadie	0.240	0.219	0.207	0.208	0.188	0.193	0.209	9.03
38)	T	Caprolactam	0.105	0.102	0.102	0.105	0.109	0.111	0.106	3.49
39)	T	2-Aminotoluene	0.646	0.579	0.563	0.502	0.494	0.538	0.554	10.13
40)	MC	4-Chloro-3-methyl	0.312	0.297	0.297	0.290	0.279	0.304	0.296	3.78
41)	T	2-Methylnaphthale	0.782	0.732	0.659	0.627	0.605	0.632	0.673	10.29
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.190	0.165	0.185	0.233	0.218	0.232	0.204	13.63
45)	TC	2,4,6-Trichloroph	0.409	0.396	0.382	0.411	0.367	0.378	0.390	4.52
46)	T	2,4,5-Trichloroph	0.470	0.420	0.414	0.425	0.388	0.396	0.419	6.87
47)	S	2-Fluorobiphenyl	1.466	1.494	1.464	1.492	1.377	1.380	1.446	3.70
48)	T	1,1'-Biphenyl	1.971	1.596	1.497	1.553	1.331	1.354	1.550	14.96
49)	T	2-Chloronaphthale	1.360	1.210	1.143	1.159	1.036	1.019	1.154	10.81
50)	T	2-Nitroaniline	0.259	0.263	0.270	0.295	0.265	0.284	0.273	5.10
51)	T	Dimethyl phthalat	1.477	1.337	1.249	1.257	1.186	1.226	1.289	8.13
52)	T	2,6-Dinitrotoluen	0.244	0.271	0.285	0.310	0.286	0.305	0.283	8.52

53)	I	Acenaphthylene	1.824	1.699	1.630	1.617	1.495	1.586	1.642	6.79
54)	T	3-Nitroaniline	0.224	0.281	0.283	0.305	0.290	0.306	0.281	10.70
55)	MC	Acenaphthene	1.395	1.158	1.097	1.095	1.012	1.006	1.127	12.71
56)	TP	2,4-Dinitrophenol	0.062	0.072	0.066	0.066	0.085	0.080	0.072	12.40
57)	MP	4-Nitrophenol	0.156	0.160	0.156	0.183	0.189	0.197	0.173	10.46
58)	M	2,4-Dinitrotoluen	0.409	0.308	0.337	0.354	0.387	0.411	0.368	11.26
59)	T	Dibenzofuran	2.033	1.639	1.557	1.525	1.505	1.545	1.634	12.28
60)	T	Diethyl phthalate	1.512	1.249	1.205	1.158	1.198	1.278	1.267	10.04
61)	T	Fluorene	1.560	1.310	1.253	1.197	1.216	1.288	1.304	10.16
62)	T	4-Chlorophenyl ph	0.874	0.742	0.708	0.721	0.681	0.699	0.737	9.46
63)	T	4-Nitroaniline	0.295	0.274	0.284	0.310	0.321	0.338	0.303	7.86
64)		1,2,4,5-Tetrachlo	0.756	0.683	0.635	0.674	0.575	0.562	0.648	11.21
65)	T	2,3,4,6-Tetrachlo	0.421	0.318	0.325	0.331	0.349	0.361	0.351	10.86
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.101	0.085	0.087	0.101	0.112	0.121	0.101	13.79
68)	TC	N-Nitrosodiphenyl	0.805	0.670	0.635	0.714	0.590	0.567	0.664	13.20
69)	T	1,2-Diphenylhydra	0.911	0.749	0.729	0.784	0.690	0.676	0.756	11.30
70)	S	2,4,6-Tribromophe	0.165	0.159	0.160	0.178	0.154	0.151	0.161	5.88
71)	T	4-Bromophenyl phe	0.268	0.280	0.264	0.298	0.240	0.236	0.264	8.88
72)	T	Hexachlorobenzene	0.261	0.250	0.247	0.246	0.219	0.222	0.241	6.90
73)	T	Atrazine	0.242	0.226	0.219	0.182	0.196	0.186	0.208	11.59
74)	MC	Pentachlorophenol	0.141	0.143	0.148	0.169	0.165	0.175	0.157	9.31
75)	T	Phenanthrene	1.200	1.104	1.020	1.004	0.965	0.969	1.044	8.80
76)	T	Anthracene	1.104	1.086	1.018	1.035	0.989	0.943	1.029	5.82
77)	T	Carbazole	1.143	0.993	0.948	1.013	0.939	0.935	0.995	7.94
78)	T	Di-n-butyl phthal	1.249	1.131	1.062	1.067	1.057	1.052	1.103	6.99
79)	TC	Fluoranthene	1.026	1.071	0.992	1.019	0.989	0.971	1.011	3.52
80)	T	Benzidine	0.769	0.581	0.710	0.747	0.795	0.601	0.701	12.79
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.217	1.321	1.202	1.196	1.186	1.233	1.226	4.02
84)	S	Terphenyl-d14	1.012	1.034	1.069	0.993	1.088	1.135	1.055	4.98
85)	T	3,3'-Dimethylbenz	0.938	0.807	0.998	0.958	1.025	0.731	0.909	12.69
86)	T	Butyl benzyl phth	0.497	0.492	0.469	0.489	0.488	0.496	0.488	2.04
87)	T	3,3'-Dichlorobenz	0.341	0.359	0.352	0.325	0.293	0.335	0.334	7.03
88)	T	Benzo[a]anthracen	1.080	0.987	0.971	1.032	0.944	0.993	1.001	4.79
89)	T	Chrysene	1.092	1.077	0.995	1.001	0.961	0.953	1.013	5.78
90)	T	Bis(2-ethylhexyl)	0.570	0.593	0.611	0.665	0.674	0.677	0.632	7.32
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.218	1.207	1.285	1.532	1.494	1.611	1.391	12.62
94)	T	Benzo[b]fluoranth	1.163	1.222	1.154	1.236	1.337	1.276	1.231	5.60
95)	T	Benzo[k]fluoranth	1.763	1.965	1.603	1.595	1.484	1.513	1.654	10.92
96)	TC	Benzo[a]pyrene	1.101	1.097	1.238	1.389	1.334	1.415	1.262	11.12
97)	T	Indeno[1,2,3-cd]p	1.405	1.433	1.481	1.689	1.664	1.794	1.578	10.08
98)	T	Dibenz[a,h]anthra	1.169	1.236	1.213	1.357	1.372	1.502	1.308	9.55
99)	T	Benzo[g,h,i]peryl	1.614	1.472	1.405	1.471	1.438	1.624	1.504	6.16
100)	I	1,4-Dioxane-d8	----------ISTD----------							
101)	T	1,4-Dioxane	1.702	1.363	1.234	1.280	1.246	1.227	1.342	13.65

(#) = Out of Range

BD1613.M Thu Sep 19 09:01:43 2013 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\BD1613\
Data File : B1941.D
Acq On : 16 Sep 2013 12:14
Operator : DANA
Sample : ABN070-13,ICV040BNA1,A,1000ml,100,1
Misc : .,NA,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 19 09:03:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 08:09:22 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	77	0.00
2	T	N-Nitrosodimethylamine	0.651	0.601	7.7	69	0.02
3	T	Pyridine	0.827	0.813	1.7	74	0.02
4	S	2-Fluorophenol	1.179	1.161	1.5	75	0.00
5	T	Benzaldehyde	0.884	0.789	10.7	77	0.00
6	S	Phenol-d5	1.475	1.396	5.4	74	0.00
7	MC	Phenol	1.549	1.422	8.2	76	0.00
8	T	Aniline	0.668	0.610	8.7	81	0.00
9	T	Bis(2-chloroethyl) ether	0.784	0.714	8.9	72	0.00
10	M	2-Chlorophenol	1.480	1.393	5.9	75	0.00
11	T	1,3-Dichlorobenzene	1.554	1.545	0.6	78	0.00
12	MC	1,4-Dichlorobenzene	1.607	1.552	3.4	77	0.00
13	T	Benzyl alcohol	0.862	0.765	11.3	72	0.00
14	T	1,2-Dichlorobenzene	1.508	1.454	3.6	78	0.00
15	T	2-Methylphenol	1.186	1.083	8.7	75	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.338	1.208	9.7	72	0.00
17	T	4-Methylphenol	1.237	1.156	6.5	74	0.00
18	MP	N-Nitrosodi-n-propylamine	0.922	0.838	9.1	73	0.00
19	T	Acetophenone	1.772	1.684	5.0	78	0.00
20	T	3-Methylphenol	1.236	1.156	6.5	74	0.00
21	T	Hexachloroethane	0.547	0.545	0.4	76	0.00
22	S	1,4-Dioxane-D8	0.305	0.335	-9.8	77	0.02
23	I	Naphthalene-d8	1.000	1.000	0.0	78	0.00
24	S	Nitrobenzene-d5	0.342	0.327	4.4	75	0.00
25	T	Nitrobenzene	0.322	0.295	8.4	74	0.00
26	T	Isophorone	0.615	0.580	5.7	76	0.00
27	TC	2-Nitrophenol	0.182	0.182	0.0	75	0.00
28	T	2,4-Dimethylphenol	0.345	0.326	5.5	76	0.00
29	T	Bis(2-chloroethoxy) methane	0.365	0.349	4.4	75	0.00
30	T	Benzoic acid	0.206	0.218	-5.8	83	0.00
31	T	2,4-Dimethylaniline	0.393	0.321	18.3	78	0.00
32	TC	2,4-Dichlorophenol	0.297	0.296	0.3	78	0.00
33	M	1,2,4-Trichlorobenzene	0.341	0.335	1.8	77	0.00
34	T	Naphthalene	1.077	1.056	1.9	79	0.00
35	T	4-Chloroaniline	0.547	0.547	0.0	79	0.00
36	T	4-Aminotoluene	0.554	0.485	12.5	75	0.00
37	TC	Hexachlorobutadiene	0.209	0.204	2.4	76	0.00
38	T	Caprolactam	0.106	0.109	-2.8	81	0.00
39	T	2-Aminotoluene	0.554	0.485	12.5	75	0.00
40	MC	4-Chloro-3-methylphenol	0.296	0.302	-2.0	81	0.00
41	T	2-Methylnaphthalene	0.673	0.694	-3.1	86	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00
44	TP	Hexachlorocyclopentadiene	0.204	0.216	-5.9	84	0.00
45	TC	2,4,6-Trichlorophenol	0.390	0.366	6.2	81	0.00

46	T	2,4,5-Trichlorophenol	0.419	0.395	5.7	85	0.00
47	S	2-Fluorobiphenyl	1.446	1.324	8.4	81	0.00
48	T	1,1'-Biphenyl	1.550	1.406	9.3	82	0.00
49	T	2-Chloronaphthalene	1.154	1.103	4.4	87	0.00
50	T	2-Nitroaniline	0.273	0.262	4.0	81	0.00
51	T	Dimethyl phthalate	1.289	1.204	6.6	87	0.00
52	T	2,6-Dinitrotoluene	0.283	0.280	1.1	82	0.00
53	T	Acenaphthylene	1.642	1.652	-0.6	93	0.00
54	T	3-Nitroaniline	0.281	0.287	-2.1	86	0.00
55	MC	Acenaphthene	1.127	1.095	2.8	91	0.00
56	TP	2,4-Dinitrophenol	0.072	0.068	5.6	95	0.00
57	MP	4-Nitrophenol	0.173	0.186	-7.5	93	0.00
58	M	2,4-Dinitrotoluene	0.368	0.382	-3.8	98	0.00
59	T	Dibenzofuran	1.634	1.641	-0.4	98	0.00
60	T	Diethyl phthalate	1.267	1.300	-2.6	102	0.00
61	T	Fluorene	1.304	1.377	-5.6	105	0.00
62	T	4-Chlorophenyl phenyl ether	0.737	0.697	5.4	88	0.00
63	T	4-Nitroaniline	0.303	0.320	-5.6	94	0.00
64		1,2,4,5-Tetrachlorobenzene	0.648	0.612	5.6	83	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.351	0.344	2.0	95	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	117	0.00
67	T	4,6-Dinitro-2-methylphenol	0.101	0.096	5.0	112	0.00
68	TC	N-Nitrosodiphenylamine	0.664	0.569	14.3	93	0.00
69	T	1,2-Diphenylhydrazine	0.756	0.728	3.7	109	0.00
70	S	2,4,6-Tribromophenol	0.161	0.142	11.8	93	0.00
71	T	4-Bromophenyl phenyl ether	0.264	0.240	9.1	94	0.00
72	T	Hexachlorobenzene	0.241	0.245	-1.7	117	0.00
73	T	Atrazine	0.208	0.171	17.8	110	0.00
74	MC	Pentachlorophenol	0.157	0.164	-4.5	113	0.00
75	T	Phenanthrene	1.044	1.066	-2.1	124	0.00
76	T	Anthracene	1.029	1.043	-1.4	118	0.00
77	T	Carbazole	0.995	0.998	-0.3	115	0.00
78	T	Di-n-butyl phthalate	1.103	1.148	-4.1	126	-0.01
79	TC	Fluoranthene	1.011	1.086	-7.4	125	-0.01
80	T	Benzidine	0.701	0.593	15.4	90	-0.01
82	I	Chrysene-d12	1.000	1.000	0.0	116	-0.03
83	M	Pyrene	1.226	1.291	-5.3	125	-0.02
84	S	Terphenyl-d14	1.055	1.079	-2.3	126	-0.02
85	T	3,3'-Dimethylbenzidine	0.909	0.734	19.3	94	-0.03
86	T	Butyl benzyl phthalate	0.488	0.518	-6.1	123	-0.03
87	T	3,3'-Dichlorobenzidine	0.334	0.301	9.9	107	-0.03
88	T	Benzo[a]anthracene	1.001	1.002	-0.1	113	-0.04
89	T	Chrysene	1.013	1.034	-2.1	120	-0.03
90	T	Bis(2-ethylhexyl) phthalate	0.632	0.703	-11.2	123	-0.03
92	I	Perylene-d12	1.000	1.000	0.0	98	-0.04
93	TC	Di-n-octyl phthalate	1.391	1.475	-6.0	94	-0.04
94	T	Benzo[b]fluoranthene	1.231	1.192	3.2	95	-0.04
95	T	Benzo[k]fluoranthene	1.654	1.518	8.2	93	-0.04
96	TC	Benzo[a]pyrene	1.262	1.371	-8.6	97	-0.04
97	T	Indeno[1,2,3-cd]pyrene	1.578	1.611	-2.1	93	-0.04
98	T	Dibenz[a,h]anthracene	1.308	1.295	1.0	93	-0.04
99	T	Benzo[g,h,i]perylene	1.504	1.422	5.5	95	-0.04
100	I	1,4-Dioxane-d8	1.000	1.000	0.0	77	-0.26
101	T	1,4-Dioxane	1.342	1.219	9.2	74	0.02

(#) = Out of Range

BD1613.M Thu Sep 19 09:03:51 2013 MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BSIM1613.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Sep 16 14:30:26 2013
Response Via : Initial Calibration

Calibration Files
0.1 =B1937.D 0.2 =B1938.D 0.5 =B1936.D
1 =B1939.D 2 =B1940.D

		Compound	0.1	0.2	0.5	1	2	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD						
23)	I	Naphthalene-d8	ISTD						
43)	I	Acenaphthene-d10	ISTD						
66)	I	Phenanthrene-d10	ISTD						
72)	T	Hexachlorobenzene	0.439	0.428	0.346	0.441	0.442	0.419	9.84
74)	MC	Pentachlorophenol	0.058	0.057	0.065	0.069	0.064	0.063	8.18
82)	I	Chrysene-d12	ISTD						
88)	T	Benzo[a]anthracene	1.697	1.797	1.599	1.577	1.641	1.662	5.29
92)	I	Perylene-d12	ISTD						
94)	T	Benzo[b]fluoranthen	0.865	0.773	0.786	0.770	0.815	0.802	4.94
95)	T	Benzo[k]fluoranthen	1.817	1.763	1.931	1.842	1.881	1.847	3.45
96)	TC	Benzo[a]pyrene	1.101	1.208	1.217	1.178	1.215	1.184	4.11
97)	T	Indeno[1,2,3-cd]pyr	0.742	0.714	0.783	0.795	0.810	0.769	5.14
98)	T	Dibenz[a,h]anthrace	0.599	0.616	0.578	0.625	0.619	0.607	3.16

(#) = Out of Range

BSIM1613.M Mon Sep 16 14:30:30 2013 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\09-16-13\
Data File : B1943.D
Acq On : 16 Sep 2013 12:48
Operator : DANA
Sample : ABN050-13,ICV000.5SIM,A,1000ml,100,1
Misc : .,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 16 14:32:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	112	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	113	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	115	0.00
72	T	Hexachlorobenzene	0.419	0.394	6.0	131	0.00
74	MC	Pentachlorophenol	0.063	0.064	-1.6	113	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	108	0.00
88	T	Benzo[a]anthracene	1.662	1.637	1.5	110	0.00
92	I	Perylene-d12	1.000	1.000	0.0	106	0.00
94	T	Benzo[b]fluoranthene	0.802	0.731	8.9	98	0.00
95	T	Benzo[k]fluoranthene	1.847	1.959	-6.1	107	0.00
96	TC	Benzo[a]pyrene	1.184	1.209	-2.1	105	0.00
97	T	Indeno[1,2,3-cd]pyrene	0.769	0.809	-5.2	109	0.00
98	T	Dibenz[a,h]anthracene	0.607	0.562	7.4	103	0.00

(#) = Out of Range

BSIM1613.M Mon Sep 16 14:32:17 2013 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2157.D
Acq On : 24 Sep 2013 7:52
Operator : DANA
Sample : ABN070-13,CCV040BNA1,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 24 09:04:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	-0.02
2	T	N-Nitrosodimethylamine	0.651	0.573	12.0	78	0.00
3	T	Pyridine	0.827	0.775	6.3	84	0.00
4	S	2-Fluorophenol	1.179	1.164	1.3	90	-0.01
5	T	Benzaldehyde	0.884	0.747	15.5	95	-0.02
6	S	Phenol-d5	1.475	1.398	5.2	88	-0.02
7	MC	Phenol	1.549	1.404	9.4	89	-0.02
8	T	Aniline	0.668	0.628	6.0	99	-0.02
9	T	Bis(2-chloroethyl) ether	0.784	0.716	8.7	86	-0.02
10	M	2-Chlorophenol	1.480	1.377	7.0	88	-0.02
11	T	1,3-Dichlorobenzene	1.554	1.527	1.7	92	-0.02
12	MC	1,4-Dichlorobenzene	1.607	1.547	3.7	91	-0.01
13	T	Benzyl alcohol	0.862	0.759	11.9	85	-0.02
14	T	1,2-Dichlorobenzene	1.508	1.434	4.9	91	-0.02
15	T	2-Methylphenol	1.186	1.072	9.6	89	-0.01
16	T	Bis(2-chloroisopropyl) ethe	1.338	1.138	14.9	81	-0.02
17	T	4-Methylphenol	1.237	1.172	5.3	89	-0.02
18	MP	N-Nitrosodi-n-propylamine	0.922	0.879	4.7	91	-0.02
19	T	Acetophenone	1.772	1.660	6.3	92	-0.02
20	T	3-Methylphenol	1.236	1.172	5.2	89	-0.02
21	T	Hexachloroethane	0.547	0.578	-5.7	96	-0.02
22	S	1,4-Dioxane-D8	0.305	0.303	0.7	83	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	89	-0.02
24	S	Nitrobenzene-d5	0.342	0.371	-8.5	97	-0.02
25	T	Nitrobenzene	0.322	0.332	-3.1	95	-0.02
26	T	Isophorone	0.615	0.611	0.7	92	-0.01
27	TC	2-Nitrophenol	0.182	0.197	-8.2	93	-0.01
28	T	2,4-Dimethylphenol	0.345	0.365	-5.8	97	-0.01
29	T	Bis(2-chloroethoxy) methane	0.365	0.344	5.8	85	-0.02
30	T	Benzoic acid	0.206	0.238	-15.5	103	-0.01
31	T	2,4-Dimethylaniline	0.393	0.353	10.2	98	-0.02
32	TC	2,4-Dichlorophenol	0.297	0.287	3.4	86	-0.02
33	M	1,2,4-Trichlorobenzene	0.341	0.330	3.2	87	-0.01
34	T	Naphthalene	1.077	1.042	3.2	89	-0.02
35	T	4-Chloroaniline	0.547	0.544	0.5	89	-0.01
36	T	4-Aminotoluene	0.554	0.522	5.8	93	-0.02
37	TC	Hexachlorobutadiene	0.209	0.212	-1.4	90	-0.02
38	T	Caprolactam	0.106	0.092	13.2	77	-0.02
39	T	2-Aminotoluene	0.554	0.522	5.8	93	-0.02
40	MC	4-Chloro-3-methylphenol	0.296	0.306	-3.4	94	-0.02
41	T	2-Methylnaphthalene	0.673	0.682	-1.3	97	-0.02
43	I	Acenaphthene-d10	1.000	1.000	0.0	99	-0.02
44	TP	Hexachlorocyclopentadiene	0.204	0.180	11.8	76	-0.02
45	TC	2,4,6-Trichlorophenol	0.390	0.364	6.7	87	-0.02

46	T	2,4,5-Trichlorophenol	0.419	0.386	7.9	89	-0.02
47	S	2-Fluorobiphenyl	1.446	1.411	2.4	93	-0.01
48	T	1,1'-Biphenyl	1.550	1.471	5.1	93	-0.02
49	T	2-Chloronaphthalene	1.154	1.130	2.1	96	-0.02
50	T	2-Nitroaniline	0.273	0.300	-9.9	100	-0.02
51	T	Dimethyl phthalate	1.289	1.182	8.3	93	-0.02
52	T	2,6-Dinitrotoluene	0.283	0.285	-0.7	91	-0.02
53	T	Acenaphthylene	1.642	1.683	-2.5	103	-0.02
54	T	3-Nitroaniline	0.281	0.279	0.7	90	-0.01
55	MC	Acenaphthene	1.127	1.158	-2.8	104	-0.02
56	TP	2,4-Dinitrophenol	0.072	0.080	-11.1	121	-0.01
57	MP	4-Nitrophenol	0.173	0.204	-17.9	110	-0.01
58	M	2,4-Dinitrotoluene	0.368	0.355	3.5	99	-0.02
59	T	Dibenzofuran	1.634	1.547	5.3	100	-0.02
60	T	Diethyl phthalate	1.267	1.174	7.3	100	-0.02
61	T	Fluorene	1.304	1.257	3.6	103	-0.02
62	T	4-Chlorophenyl phenyl ether	0.737	0.597	19.0	82	-0.02
63	T	4-Nitroaniline	0.303	0.258	14.9	82	-0.02
64		1,2,4,5-Tetrachlorobenzene	0.648	0.607	6.3	89	-0.02
65	T	2,3,4,6-Tetrachlorophenol	0.351	0.288	17.9	86	-0.02
66	I	Phenanthrene-d10	1.000	1.000	0.0	79	-0.02
67	T	4,6-Dinitro-2-methylphenol	0.101	0.104	-3.0	81	-0.02
68	TC	N-Nitrosodiphenylamine	0.664	0.773	-16.4	85	-0.02
69	T	1,2-Diphenylhydrazine	0.756	0.690	8.7	69	-0.02
70	S	2,4,6-Tribromophenol	0.161	0.182	-13.0	81	-0.02
71	T	4-Bromophenyl phenyl ether	0.264	0.311	-17.8	83	-0.02
72	T	Hexachlorobenzene	0.241	0.273	-13.3	88	-0.02
73	T	Atrazine	0.208	0.246	-18.3	107	-0.01
74	MC	Pentachlorophenol	0.157	0.157	0.0	73	-0.02
75	T	Phenanthrene	1.044	1.039	0.5	82	-0.02
76	T	Anthracene	1.029	1.010	1.8	77	-0.02
77	T	Carbazole	0.995	0.883	11.3	69	-0.02
78	T	Di-n-butyl phthalate	1.103	1.088	1.4	81	-0.03
79	TC	Fluoranthene	1.011	0.973	3.8	75	-0.03
80	T	Benzidine	0.701	0.569	18.8	73	-0.03
82	I	Chrysene-d12	1.000	1.000	0.0	66	-0.06
83	M	Pyrene	1.226	1.349	-10.0	74	-0.03
84	S	Terphenyl-d14	1.055	1.222	-15.8	81	-0.04
85	T	3,3'-Dimethylbenzidine	0.909	0.754	17.1	58	-0.05
86	T	Butyl benzyl phthalate	0.488	0.541	-10.9	73	-0.05
87	T	3,3'-Dichlorobenzidine	0.334	0.328	1.8	66	-0.05
88	T	Benzo[a]anthracene	1.001	1.031	-3.0	66	-0.06
89	T	Chrysene	1.013	1.000	1.3	66	-0.06
90	T	Bis(2-ethylhexyl) phthalate	0.632	0.711	-12.5	71	-0.06
92	I	Perylene-d12	1.000	1.000	0.0	68	-0.08
93	TC	Di-n-octyl phthalate	1.391	1.594	-14.6	71	-0.07
94	T	Benzo[b]fluoranthene	1.231	1.427	-15.9	78	-0.07
95	T	Benzo[k]fluoranthene	1.654	1.480	10.5	63	-0.07
96	TC	Benzo[a]pyrene	1.262	1.431	-13.4	70	-0.07
97	T	Indeno[1,2,3-cd]pyrene	1.578	1.843	-16.8	74	-0.09
98	T	Dibenz[a,h]anthracene	1.308	1.533	-17.2	77	-0.09
99	T	Benzo[g,h,i]perylene	1.504	1.649	-9.6	76	-0.10
100	I	1,4-Dioxane-d8	1.000	1.000	0.0	83	-0.27
101	T	1,4-Dioxane	1.342	1.235	8.0	81	0.00

(#) = Out of Range

BD1613.M Wed Oct 02 11:44:51 2013 MSD_B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C9789.D

Date Analyzed: 09/10/2013

Instrument ID: MSDC

Time Analyzed: 16:15

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	179741	2.47	725778	3.01	438920	3.82
	UPPER LIMIT	359482	2.97	1451556	3.51	877840	4.32
	LOWER LIMIT	89871	1.97	362889	2.51	219460	3.32
	LAB SAMPLE ID						
01	ICC010BNA1	161882	2.47	681271	3.01	421822	3.83
02	ICC020BNA1	156644	2.47	653348	3.01	394358	3.83
03	ICC040BNA1	160435	2.47	672033	3.02	403704	3.83
04	ICC080BNA1	158024	2.47	669950	3.02	388351	3.83
05	ICC120BNA1	193539	2.47	819268	3.02	487199	3.86
06	ICV040BNA1	173317	2.47	730510	3.02	436870	3.86
07	ICC120BNA2	260276	2.47	1083469	3.02	682879	3.85
08	ICC080BNA2	188485	2.47	800384	3.02	495291	3.85
09	ICC040BNA2	152311	2.47	622754	3.02	394375	3.86
10	ICC020BNA2	184332	2.47	774768	3.02	477898	3.85
11	ICC010BNA2	152062	2.47	613992	3.01	389563	3.84
12	ICC001BNA2	196074	2.47	845804	3.02	509866	3.85
13	ICV040BNA2	180144	2.47	739863	3.02	465174	3.86
14							
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20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C9789.D

Date Analyzed: 09/10/2013

Instrument ID: MSDC

Time Analyzed: 16:15

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	699175		4.57		644442		6.34		366137		7.67	
	UPPER LIMIT	1398350		5.07		1288884		6.84		732274		8.17	
	LOWER LIMIT	349588		4.07		322221		5.84		183069		7.17	
	LAB SAMPLE ID												
01	ICC010BNA1	662720		4.58		616112		6.34		343676		7.69	
02	ICC020BNA1	642175		4.58		571945		6.35		315367		7.69	
03	ICC040BNA1	632590		4.58		540119		6.34		309196		7.68	
04	ICC080BNA1	579365		4.58		469906		6.35		301109		7.69	
05	ICC120BNA1	764913		4.65		532829		6.44		307472		7.78	
06	ICV040BNA1	703761		4.65		666910		6.44		369311		7.77	
07	ICC120BNA2	1117545		4.64		1024951		6.42		540415		7.76	
08	ICC080BNA2	835315		4.62		781250		6.41		405714		7.74	
09	ICC040BNA2	656626		4.66		679644		6.45		389302		7.78	
10	ICC020BNA2	784214		4.63		819581		6.42		456449		7.76	
11	ICC010BNA2	663751		4.61		675768		6.38		396104		7.71	
12	ICC001BNA2	852863		4.63		836205		6.41		469598		7.75	
13	ICV040BNA2	779700		4.65		761975		6.44		419081		7.77	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0084.D

Date Analyzed: 09/19/2013

Instrument ID: MSDC

Time Analyzed: 11:07

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	229011		2.47		911152		3.01		506952		3.82	
	UPPER LIMIT	458022		2.97		1822304		3.51		1013904		4.32	
	LOWER LIMIT	114506		1.97		455576		2.51		253476		3.32	
	LAB SAMPLE ID												
01	CCV040BNA2	225745		2.47		852653		3.01		569174		3.82	
02	BLKS130919-02	159395		2.46		646626		3.01		383926		3.83	
03	LCSS130919-02	212485		2.46		877685		3.01		502413		3.82	
04	E13-09216-008MS	240564		2.46		1005147		3.01		592503		3.81	
05	E13-09216-008MSD	220330		2.46		873722		3.01		501221		3.82	
06	E13-09216-008	238878		2.46		1022695		3.01		588975		3.81	
07	E13-09216-009	190213		2.46		792028		3.01		477019		3.81	
08	E13-09167-001	233907		2.46		932451		3.01		478745		3.81	
09	E13-09115-001	285980		2.46		1180832		3.01		644457		3.81	
10	E13-09188-001	281221		2.46		1188012		3.01		654455		3.81	
11	E13-09192-001	173977		2.47		761646		3.01		457579		3.82	
12	E13-09192-002	144056		2.47		609736		3.01		345322		3.80	
13	E13-09192-003	190691		2.46		799421		3.01		469074		3.80	
14	E13-09204-006	175289		2.46		773583		3.01		448115		3.84	
15	E13-09219-001	164677		2.47		702912		3.01		401384		3.81	
16	E13-09198-003	253384		2.47		1031085		3.01		506244		3.80	
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0084.D

Date Analyzed: 09/19/2013

Instrument ID: MSDC

Time Analyzed: 11:07

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	767392		4.56		520647		6.32		271943		7.66	
	UPPER LIMIT	1534784		5.06		1041294		6.82		543886		8.16	
	LOWER LIMIT	383696		4.06		260324		5.82		135972		7.16	
	LAB SAMPLE ID												
01	CCV040BNA2	908188		4.56		681735		6.32		367765		7.67	
02	BLKS130919-02	538973		4.61		401704		6.37		250870		7.75	
03	LCSS130919-02	719799		4.57		387634		6.34		180997		7.68	
04	E13-09216-008MS	869989		4.56		487828		6.32		229737		7.69	
05	E13-09216-008MSD	740957		4.57		449965		6.32		225186		7.70	
06	E13-09216-008	867627		4.55		466241		6.30		217929		7.65	
07	E13-09216-009	699083		4.55		362057		6.31		183089		7.65	
08	E13-09167-001	676945		4.55		419947		6.31		256538		7.66	
09	E13-09115-001	879477		4.55		534902		6.30		328460		7.64	
10	E13-09188-001	807088		4.55		537237		6.31		312858		7.66	
11	E13-09192-001	725524		4.57		538653		6.34		304689		7.69	
12	E13-09192-002	517683		4.54		372798		6.30		214898		7.64	
13	E13-09192-003	713812		4.54		528946		6.30		289303		7.65	
14	E13-09204-006	596240		4.62		444578		6.41		241487		7.76	
15	E13-09219-001	594760		4.56		448922		6.32		243113		7.68	
16	E13-09198-003	607470		4.54		449908		6.29		242481		7.66	
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1924.D

Date Analyzed: 09/16/2013

Instrument ID: MSDB

Time Analyzed: 07:26

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	227451	3.60	862774	4.37	447924	5.39
	UPPER LIMIT	454902	4.10	1725548	4.87	895848	5.89
	LOWER LIMIT	113726	3.10	431387	3.87	223962	4.89
	LAB SAMPLE ID						
01	ICC040BNA1	227451	3.60	862774	4.37	447924	5.39
01	ICC001BNA1	216117	3.60	824749	4.37	440132	5.39
02	ICC010BNA1	171122	3.60	674649	4.37	369769	5.39
03	ICC020BNA1	184173	3.60	722522	4.37	403995	5.39
04	ICC080BNA1	147133	3.60	626090	4.37	360438	5.39
05	ICC120BNA1	153708	3.60	638743	4.37	383475	5.39
06	ICC120BNA2	219297	3.60	842386	4.37	473883	5.39
07	ICC080BNA2	202232	3.60	773876	4.37	469921	5.39
08	ICC040BNA2	189141	3.60	725297	4.37	444439	5.39
09	ICC020BNA2	201320	3.60	762712	4.37	457128	5.39
10	ICC010BNA2	186442	3.60	712089	4.37	430723	5.39
11	ICC001BNA2	185080	3.60	702640	4.37	427180	5.39
12	ICV040BNA1	174464	3.60	672843	4.37	408113	5.39
13	ICV040BNA2	158626	3.60	608937	4.37	368385	5.39
14							
15							
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19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1924.D

Date Analyzed: 09/16/2013

Instrument ID: MSDB

Time Analyzed: 07:26

		IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	638115		6.31		539068		7.89		326966		9.13	
	UPPER LIMIT	1276230		6.81		1078136		8.39		653932		9.63	
	LOWER LIMIT	319058		5.81		269534		7.39		163483		8.63	
	LAB SAMPLE ID												
01	ICC040BNA1	638115		6.31		539068		7.89		326966		9.13	
01	ICC001BNA1	654704		6.31		532314		7.86		299840		9.09	
02	ICC010BNA1	584968		6.31		506998		7.85		292454		9.08	
03	ICC020BNA1	642920		6.31		522751		7.87		311396		9.10	
04	ICC080BNA1	622286		6.31		515219		7.87		320020		9.10	
05	ICC120BNA1	701828		6.31		548016		7.87		352379		9.10	
06	ICC120BNA2	683169		6.31		508775		7.86		275800		9.09	
07	ICC080BNA2	898019		6.30		717894		7.87		338820		9.11	
08	ICC040BNA2	851612		6.31		739101		7.86		339879		9.09	
09	ICC020BNA2	892421		6.30		782698		7.87		352507		9.11	
10	ICC010BNA2	834407		6.31		675090		7.85		314188		9.07	
11	ICC001BNA2	789303		6.31		637821		7.84		319697		9.07	
12	ICV040BNA1	747619		6.31		624676		7.86		320323		9.09	
13	ICV040BNA2	722093		6.31		662759		7.86		306644		9.09	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1924.D

Date Analyzed: 09/16/2013

Instrument ID: MSDB

Time Analyzed: 07:26

	20 ppm	IS7 AREA	#	RT	#	IS8 AREA	#	RT	#	IS9 AREA	#	RT	#
	326966	37723		1.36									
	UPPER LIMIT	41495		1.86									
	LOWER LIMIT	5658		0.86									
	LAB SAMPLE ID												
01	ICC040BNA1	37723		1.36									
01	ICC001BNA1	33460		1.35									
02	ICC010BNA1	25823		1.34									
03	ICC020BNA1	28355		1.34									
04	ICC080BNA1	20338		1.34									
05	ICC120BNA1	23149		1.35									
06	ICC120BNA2	N/A		N/A									
07	ICC080BNA2	N/A		N/A									
08	ICC040BNA2	N/A		N/A									
09	ICC020BNA2	N/A		N/A									
10	ICC010BNA2	N/A		N/A									
11	ICC001BNA2	N/A		N/A									
12	ICV040BNA1	29216		1.37									
13	ICV040BNA2	N/A		N/A									
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS7 = 1,4-Dioxane-d8

AREA UPPER LIMIT = +10% of internal standard area
AREA LOWER LIMIT = -85% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1936.D

Date Analyzed: 09/16/2013

Instrument ID: MSDB

Time Analyzed: 10:58

	1 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	21841	2.18	52907	2.72	24664	3.51
	UPPER LIMIT	43682	2.68	105814	3.22	49328	4.01
	LOWER LIMIT	10921	1.68	26454	2.22	12332	3.01
	LAB SAMPLE ID						
01	ICC000.1SIM	18556	2.18	46284	2.72	20703	3.51
02	ICC000.2SIM	17859	2.18	43843	2.72	20357	3.50
03	ICC001SIM	15513	2.18	38919	2.72	18413	3.50
04	ICC002SIM	16583	2.18	42113	2.72	19982	3.50
05	ICV000.5SIM	24775	2.18	59015	2.72	27752	3.51
06							
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22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B1936.D

Date Analyzed: 09/16/2013

Instrument ID: MSDB

Time Analyzed: 10:58

	1 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	35571	4.22	25146	5.95	33335	7.23
	UPPER LIMIT	71142	4.72	50292	6.45	66670	7.73
	LOWER LIMIT	17786	3.72	12573	5.45	16668	6.73
	LAB SAMPLE ID						
01	ICC000.1SIM	31238	4.22	21120	5.94	24644	7.23
02	ICC000.2SIM	30049	4.22	21052	5.94	25013	7.23
03	ICC001SIM	26390	4.21	22074	5.93	29250	7.22
04	ICC002SIM	28942	4.21	21724	5.93	29287	7.22
05	ICV000.5SIM	40979	4.23	27132	5.96	35251	7.23
06							
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21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2114.D

Date Analyzed: 09/23/2013

Instrument ID: MSDB

Time Analyzed: 08:23

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	122359	3.59	493620	4.36	315987	5.38
	UPPER LIMIT	244718	4.09	987240	4.86	631974	5.88
	LOWER LIMIT	61180	3.09	246810	3.86	157994	4.88
	LAB SAMPLE ID						
01	CCV040BNA1	122359	3.59	493620	4.36	315987	5.38
01	CCV040BNA2	121985	3.58	488841	4.35	311925	5.38
02	BLKA130920-01	121730	3.58	487059	4.35	303622	5.38
03	LCSA130920-01	127208	3.58	507773	4.35	315693	5.38
04	E13-09187-001MS	134359	3.59	536842	4.36	325923	5.38
05	E13-09187-001MSD	127812	3.58	505000	4.35	300110	5.38
06	E13-09187-001	117843	3.58	478074	4.35	300595	5.38
07	E13-09187-002	116633	3.58	458960	4.35	291553	5.38
08	E13-09187-003	109646	3.59	426301	4.36	277831	5.38
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2114.D

Date Analyzed: 09/23/2013

Instrument ID: MSDB

Time Analyzed: 08:23

		IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	526536		6.29		446260		7.85		250194		9.06	
	UPPER LIMIT	1053072		6.79		892520		8.35		500388		9.56	
	LOWER LIMIT	263268		5.79		223130		7.35		125097		8.56	
	LAB SAMPLE ID												
01	CCV040BNA1	526536		6.29		446260		7.85		250194		9.06	
01	CCV040BNA2	530794		6.29		507827		7.86		264578		9.07	
02	BLKA130920-01	507598		6.29		340271		7.80		198240		9.02	
03	LCSA130920-01	509327		6.29		337439		7.80		188905		9.03	
04	E13-09187-001MS	495224		6.31		308995		7.92		185627		9.14	
05	E13-09187-001MSD	456745		6.29		286696		7.85		174393		9.06	
06	E13-09187-001	469312		6.29		312359		7.81		180725		9.03	
07	E13-09187-002	461254		6.29		305019		7.88		170734		8.99	
08	E13-09187-003	437954		6.29		298765		7.80		174734		9.01	
09													
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18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2114.D

Date Analyzed: 09/23/2013

Instrument ID: MSDB

Time Analyzed: 08:23

	20 ppm	IS7 AREA	#	RT	#	IS8 AREA	#	RT	#	IS9 AREA	#	RT	#
	250194	19145		1.33									
	UPPER LIMIT	21060		1.83									
	LOWER LIMIT	2872		0.83									
	LAB SAMPLE ID												
01	CCV040BNA1	19145		1.33									
01	CCV040BNA2	N/A		N/A									
02	BLKA130920-01	8534		1.33									
03	LCSA130920-01	9481		1.34									
04	E13-09187-001MS	12139		1.33									
05	E13-09187-001MSD	11816		1.34									
06	E13-09187-001	10786		1.33									
07	E13-09187-002	10547		1.34									
08	E13-09187-003	10160		1.33									
09													
10													
11													
12													
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18													
19													
20													
21													
22													

IS7 = 1,4-Dioxane-d8

AREA UPPER LIMIT = +10% of internal standard area
AREA LOWER LIMIT = -85% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2116.D

Date Analyzed: 09/23/2013

Instrument ID: MSDB

Time Analyzed: 08:57

	1 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	15483		2.17		37211		2.71		15583		3.50	
	UPPER LIMIT	30966		2.67		74422		3.21		31166		4.00	
	LOWER LIMIT	7742		1.67		18606		2.21		7792		3.00	
	LAB SAMPLE ID												
01	BLKA130920-01	10407		2.17		26749		2.71		14741		3.49	
02	E13-09187-001	10065		2.17		28318		2.71		15224		3.49	
03	E13-09187-002	8703		2.17		24199		2.71		12758		3.49	
04	E13-09187-003	9166		2.17		24957		2.72		21878		3.50	
05	E13-09187-004	7993		2.17		21772		2.72		16672		3.50	
06	E13-09187-005	8204		2.17		23383		2.71		12897		3.49	
07	E13-09198-005	11068		2.17		30736		2.71		16190		3.49	
08	E13-09198-006	8373		2.17		19558		2.71		9984		3.49	
09	E13-09198-007	7856		2.17		22548		2.71		12153		3.49	
10													
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21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2116.D

Date Analyzed: 09/23/2013

Instrument ID: MSDB

Time Analyzed: 08:57

	1 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	21646		4.23		13305		5.95		25524		7.22	
	UPPER LIMIT	43292		4.73		26610		6.45		51048		7.72	
	LOWER LIMIT	10823		3.73		6653		5.45		12762		6.72	
	LAB SAMPLE ID												
01	BLKA130920-01	21445		4.20		11763		5.91		21407		7.19	
02	E13-09187-001	23347		4.20		12945		5.91		21174		7.18	
03	E13-09187-002	19242		4.20		8901		5.93		15111		7.18	
04	E13-09187-003	19156		4.21		8960		5.93		15399		7.18	
05	E13-09187-004	26036		4.22		9600		5.92		15563		7.19	
06	E13-09187-005	18670		4.20		9816		5.92		15329		7.19	
07	E13-09198-005	21933		4.19		12582		5.94		25884		7.20	
08	E13-09198-006	13782		4.20		7721		5.91		14877		7.19	
09	E13-09198-007	18301		4.19		9364		5.90		17511		7.17	
10													
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21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2157.D

Date Analyzed: 09/24/2013

Instrument ID: MSDB

Time Analyzed: 07:52

		IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	207328		3.59		767830		4.36		441374		5.38	
	UPPER LIMIT	414656		4.09		1535660		4.86		882748		5.88	
	LOWER LIMIT	103664		3.09		383915		3.86		220687		4.88	
	LAB SAMPLE ID												
01	CCV040BNA1	207328		3.59		767830		4.36		441374		5.38	
01	CCV040BNA2	205500		3.58		787429		4.36		481996		5.38	
02	E13-09187-004	163452		3.59		442577		4.36		283228		5.38	
03	E13-09187-005	206442		3.58		792129		4.35		505830		5.38	
04	E13-09198-005	187820		3.59		676611		4.35		372175		5.38	
05	E13-09198-006	170071		3.58		639296		4.35		359258		5.38	
06	E13-09198-007	206112		3.59		791227		4.35		459533		5.38	
07													
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22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2157.D

Date Analyzed: 09/24/2013

Instrument ID: MSDB

Time Analyzed: 07:52

		IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	503943		6.29		355547		7.84		222150		9.05	
	UPPER LIMIT	1007886		6.79		711094		8.34		444300		9.55	
	LOWER LIMIT	251972		5.79		177774		7.34		111075		8.55	
	LAB SAMPLE ID												
01	CCV040BNA1	503943		6.29		355547		7.84		222150		9.05	
01	CCV040BNA2	614388		6.30		395454		7.83		221767		9.04	
02	E13-09187-004	356860		6.30		281551		7.84		159363		9.04	
03	E13-09187-005	643411		6.30		358400		7.84		165251		9.04	
04	E13-09198-005	392196		6.30		238545		7.84		159496		9.05	
05	E13-09198-006	376004		6.30		227123		7.84		147138		9.05	
06	E13-09198-007	478239		6.29		268330		7.84		174346		9.06	
07													
08													
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19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2157.D

Date Analyzed: 09/24/2013

Instrument ID: MSDB

Time Analyzed: 07:52

	20 ppm	IS7 AREA #	RT #	IS8 AREA #	RT #	IS9 AREA #	RT #
	222150	31484	1.36				
	UPPER LIMIT	34632	1.86				
	LOWER LIMIT	4723	0.86				
	LAB SAMPLE ID						
01	CCV040BNA1	31484	1.36				
01	CCV040BNA2	N/A	N/A				
02	E13-09187-004	7373	1.34				
03	E13-09187-005	12232	1.36				
04	E13-09198-005	12625	1.36				
05	E13-09198-006	10598	1.36				
06	E13-09198-007	12769	1.36				
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS7 = 1,4-Dioxane-d8

AREA UPPER LIMIT = +10% of internal standard area
AREA LOWER LIMIT = -85% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : C0107.D
Acq On : 19 Sep 2013 17:04
Operator : EDM
Sample : AOC-12-3,E13-09198-003,S,15.86g,19.9,0.5
Misc : 130919-02,09/19/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 20 09:17:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.47	152	253384	40.00	UG	0.00
23) Naphthalene-d8	3.01	136	1031085	40.00	UG	-0.02
43) Acenaphthene-d10	3.80	164	506244	40.00	UG	-0.05
66) Phenanthrene-d10	4.54	188	607470	40.00	UG	-0.11
82) Chrysene-d12	6.29	240	449908	40.00	UG	-0.14
92) Perylene-d12	7.66	264	242481	40.00	UG	-0.12
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.70	82	295694	35.43	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 70.86%			
47) 2-Fluorobiphenyl	3.47	172	679681	39.71	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 79.42%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.41	244	568480m	47.67	UG	-0.19
Spiked Amount 50.000	Range 15 - 122		Recovery = 95.34%			
Target Compounds						Qvalue

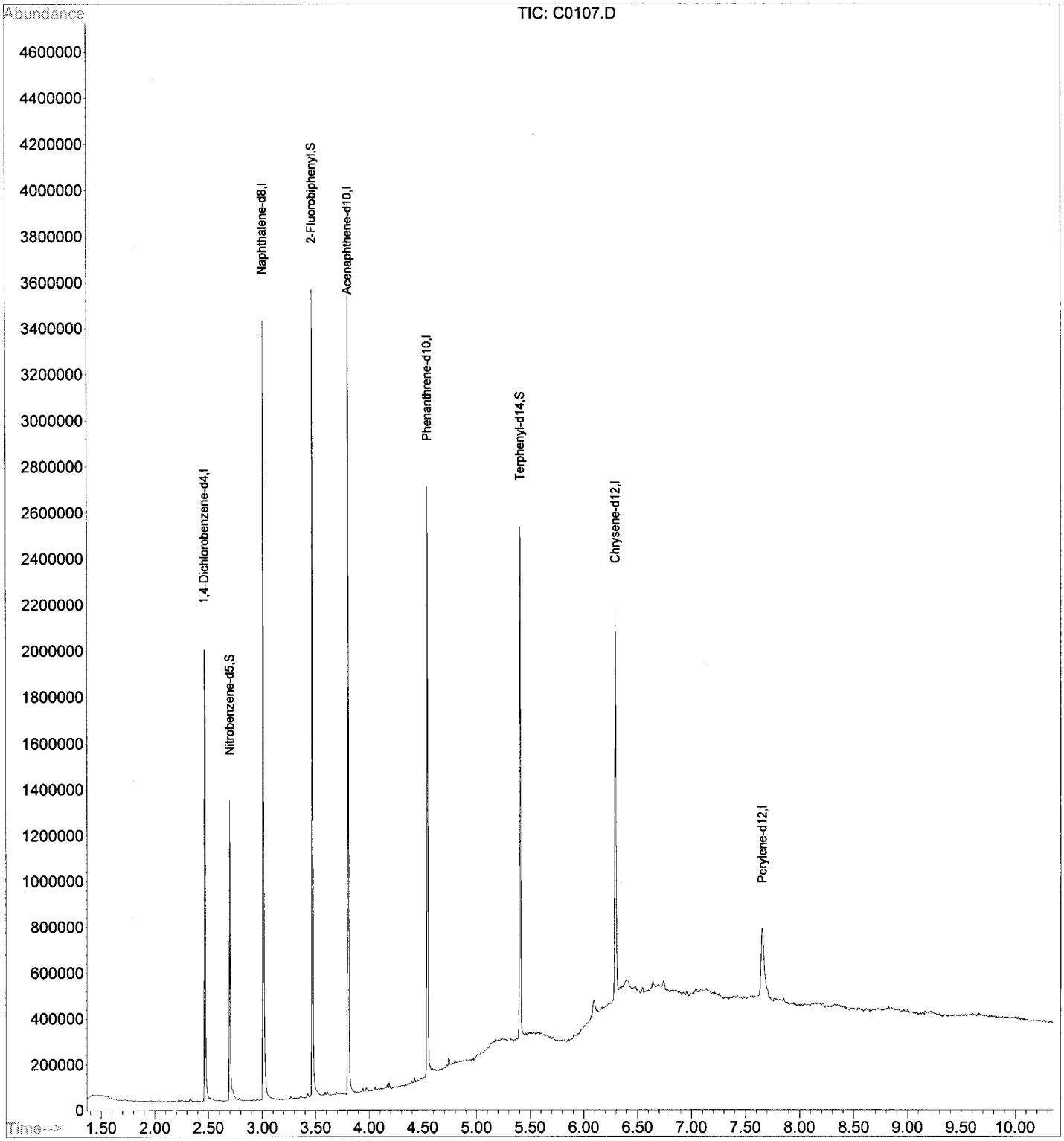
(#) = qualifier out of range (m) = manual integration (+) = signals summed

E13-09198 0217

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : C0107.D
Acq On : 19 Sep 2013 17:04
Operator : EDM
Sample : AOC-12-3,E13-09198-003,S,15.86g,19.9,0.5
Misc : 130919-02,09/19/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 20 09:17:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : C0107.D
Acq On : 19 Sep 2013 17:04
Operator : EDM
Sample : AOC-12-3,E13-09198-003,S,15.86g,19.9,0.5
Misc : 130919-02,09/19/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2213.M Fri Sep 20 09:17:30 2013 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : B2146.D
Acq On : 23 Sep 2013 17:02
Operator : DANA
Sample : AOC-7-2,E13-09198-005,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 24 07:17:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration

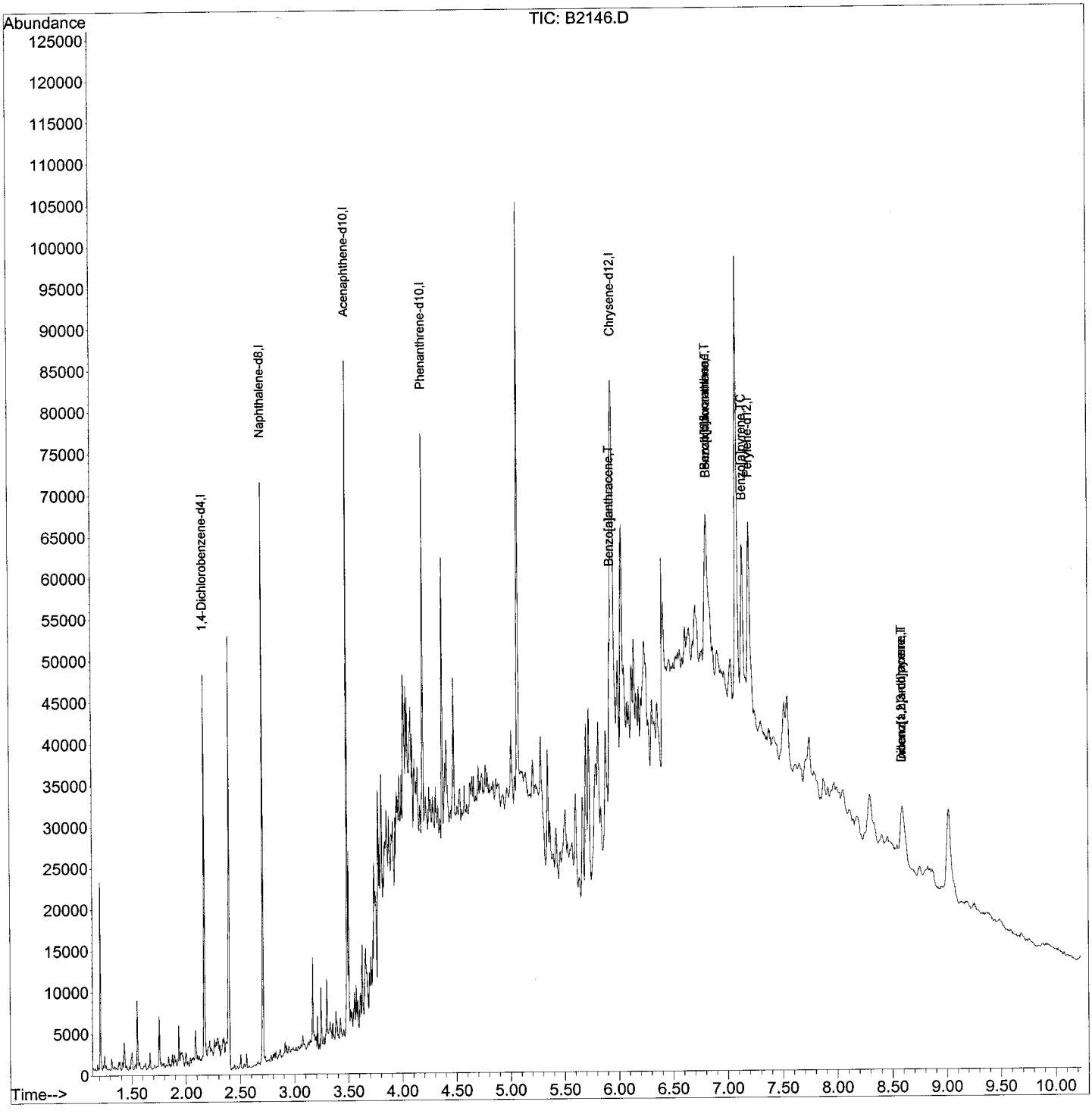
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.17	152	11068	1.00	UG	-0.01
23) Naphthalene-d8	2.71	136	30736	1.00	UG	-0.01
43) Acenaphthene-d10	3.49	164	16190	1.00	UG	-0.02
66) Phenanthrene-d10	4.19	188	21933	1.00	UG	-0.03
82) Chrysene-d12	5.94	240	12582	1.00	UG	-0.02
92) Perylene-d12	7.20	264	25884	1.00	UG	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
Target Compounds						Qvalue
88) Benzo[a]anthracene	5.92	228	11291m	0.54	UG	
94) Benzo[b]fluoranthene	6.81	252	12812m	0.62	UG	
95) Benzo[k]fluoranthene	6.83	252	5283m	0.11	UG	
96) Benzo[a]pyrene	7.14	252	23039	0.75	UG	100
97) Indeno[1,2,3-cd]pyrene	8.60	276	9315	0.47	UG	100
98) Dibenz[a,h]anthracene	8.59	278	6726	0.43	UG	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : B2146.D
Acq On : 23 Sep 2013 17:02
Operator : DANA
Sample : AOC-7-2,E13-09198-005,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 24 07:17:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2162.D
Acq On : 24 Sep 2013 9:17
Operator : DANA
Sample : AOC-7-2,E13-09198-005,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 78 Sample Multiplier: 1

Quant Time: Sep 24 10:33:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration

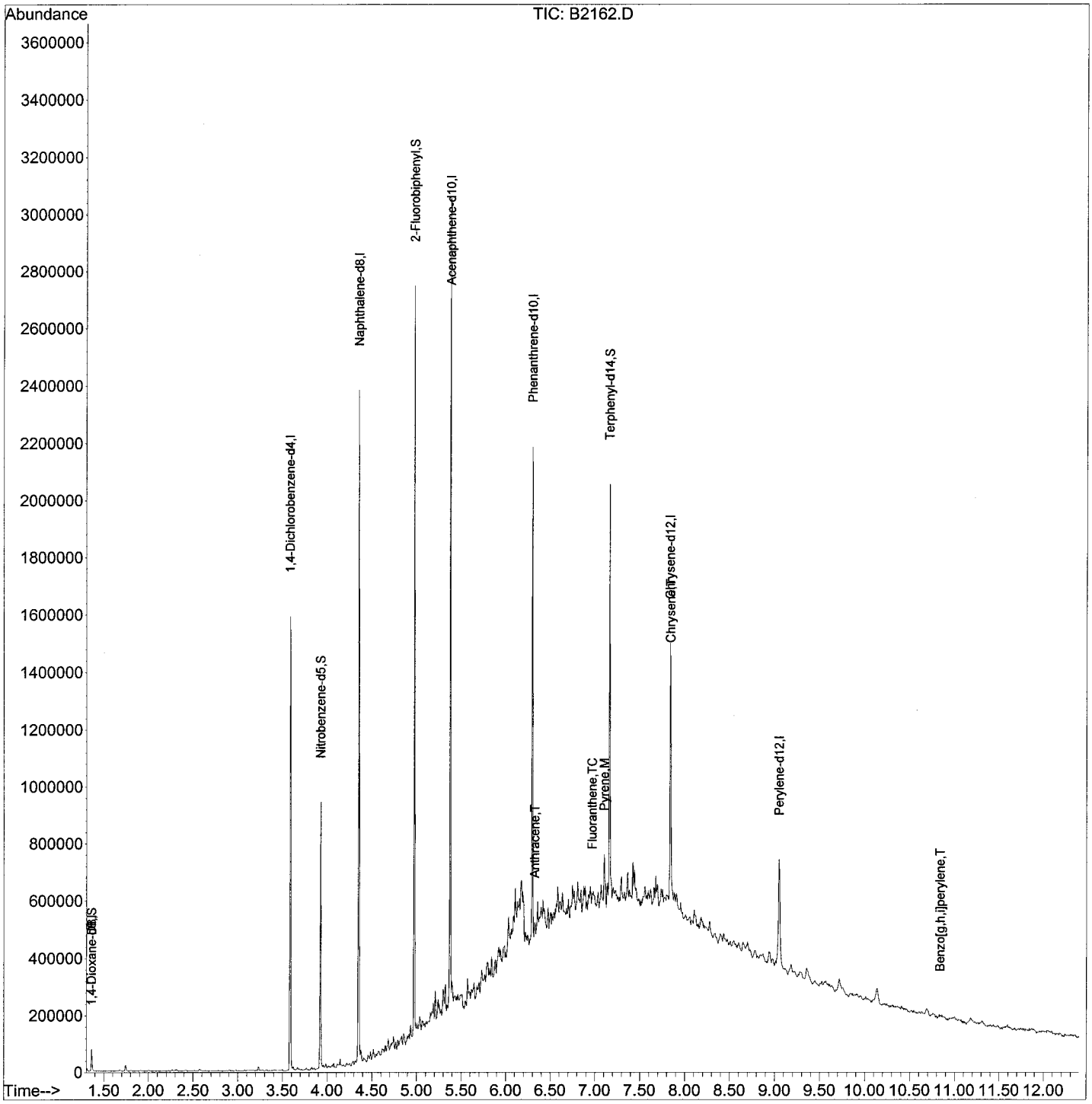
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.59	152	187820	40.00	UG	-0.02
23) Naphthalene-d8	4.35	136	676611	40.00	UG	-0.02
43) Acenaphthene-d10	5.38	164	372175	40.00	UG	-0.02
66) Phenanthrene-d10	6.30	188	392196	40.00	UG	-0.02
82) Chrysene-d12	7.84	240	238545	40.00	UG	-0.06
92) Perylene-d12	9.05	264	159496	40.00	UG	-0.08
100) 1,4-Dioxane-d8	1.36	64	12625m	20.00	UG	-0.27
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.00%#			
22) 1,4-Dioxane-D8	1.36	64	12571	8.78	UG	0.00
Spiked Amount 20.000	Range 15 - 110		Recovery = 43.90%			
24) Nitrobenzene-d5	3.92	82	180187	31.17	UG	-0.02
Spiked Amount 50.000	Range 27 - 102		Recovery = 62.34%			
47) 2-Fluorobiphenyl	4.97	172	455713	33.88	UG	-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery = 67.76%			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	7.16	244	294456	46.79	UG	-0.04
Spiked Amount 50.000	Range 23 - 124		Recovery = 93.58%			
Target Compounds						Qvalue
76) Anthracene	6.33	178	5698	0.56	UG	# 1
79) Fluoranthene	6.97	202	7380	0.74	UG	# 60
83) Pyrene	7.10	202	47246m	6.46	UG	
89) Chrysene	7.85	228	10366m	1.72	UG	
99) Benzo[g,h,i]perylene	10.84	276	9361	1.56	UG	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2162.D
Acq On : 24 Sep 2013 9:17
Operator : DANA
Sample : AOC-7-2,E13-09198-005,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 78 Sample Multiplier: 1

Quant Time: Sep 24 10:33:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2162.D
Acq On : 24 Sep 2013 9:17
Operator : DANA
Sample : AOC-7-2,E13-09198-005,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 78 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BD1613.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.583	425	428	431	rBV	1585694	1142689	71.86%	10.841%
2	3.925	488	492	495	rBV	931427	555032	34.91%	5.266%
3	4.352	568	572	575	rBV	2345234	1437570	90.41%	13.639%
4	4.379	575	577	580	rVB3	40167	30852	1.94%	0.293%
5	4.518	599	603	606	rBV5	37872	41917	2.64%	0.398%
6	4.790	652	654	656	rBV2	34652	29465	1.85%	0.280%
7	4.833	656	662	664	rVV6	40563	62645	3.94%	0.594%
8	4.854	664	666	670	rVB3	41793	50961	3.20%	0.483%
9	4.934	679	681	685	rBV4	49977	44650	2.81%	0.424%
10	4.972	685	688	691	rBV	2621207	1358963	85.47%	12.893%
11	5.068	703	706	708	rBV4	32482	39485	2.48%	0.375%
12	5.207	730	732	734	rVB	101307	68259	4.29%	0.648%
13	5.244	736	739	743	rBV6	62987	81611	5.13%	0.774%
14	5.298	746	749	752	rBV4	92204	105076	6.61%	0.997%
15	5.324	752	754	756	rVB	92369	63218	3.98%	0.600%
16	5.378	761	764	766	rVV	2814877	1590079	100.00%	15.086%
17	5.394	766	767	771	rVB3	72572	65823	4.14%	0.624%
18	5.570	798	800	802	rBV	94568	75407	4.74%	0.715%
19	5.730	826	830	833	rBV4	82095	110981	6.98%	1.053%
20	5.843	849	851	854	rVB2	71444	48173	3.03%	0.457%
21	6.030	884	886	890	rBV2	93900	85062	5.35%	0.807%
22	6.104	898	900	903	rBV2	119070	89499	5.63%	0.849%
23	6.297	933	936	938	rBV	1708239	1006996	63.33%	9.554%
24	7.103	1085	1087	1091	rVB2	185045	171973	10.82%	1.632%
25	7.162	1095	1098	1101	rBV	1439008	865794	54.45%	8.214%
26	7.424	1144	1147	1148	rBV	127218	95778	6.02%	0.909%
27	7.835	1221	1224	1231	rVB	899757	712313	44.80%	6.758%
28	9.048	1447	1451	1460	rVB	384232	509888	32.07%	4.838%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2162.D
Acq On : 24 Sep 2013 9:17
Operator : DANA
Sample : AOC-7-2,E13-09198-005,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 78 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BD1613.M
Title : BNA CALIBRATION METHOD

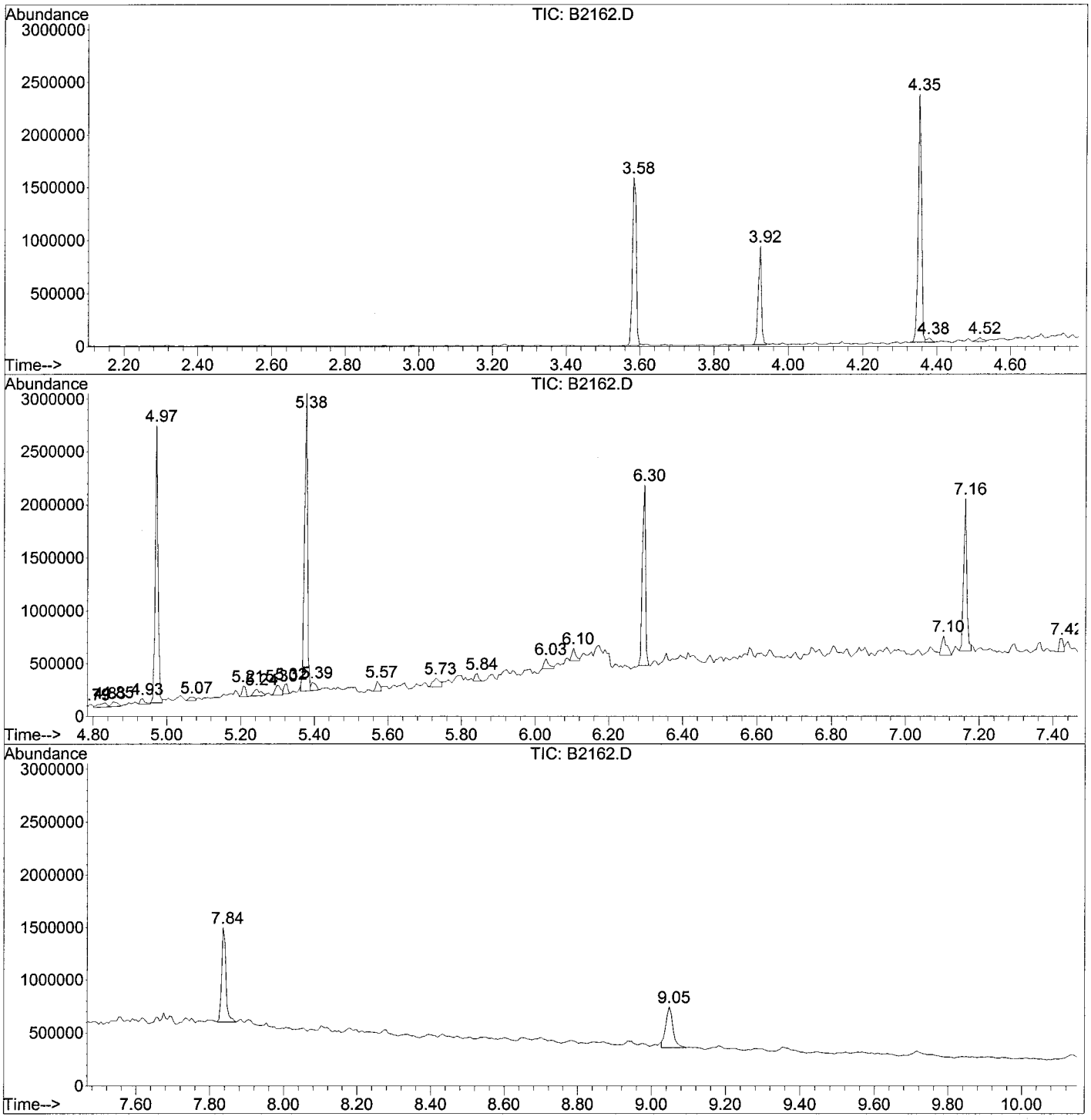
Sum of corrected areas: 10540159

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2162.D
Acq On : 24 Sep 2013 9:17
Operator : DANA
Sample : AOC-7-2,E13-09198-005,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 78 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2162.D
Acq On : 24 Sep 2013 9:17
Operator : DANA
Sample : AOC-7-2,E13-09198-005,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 78 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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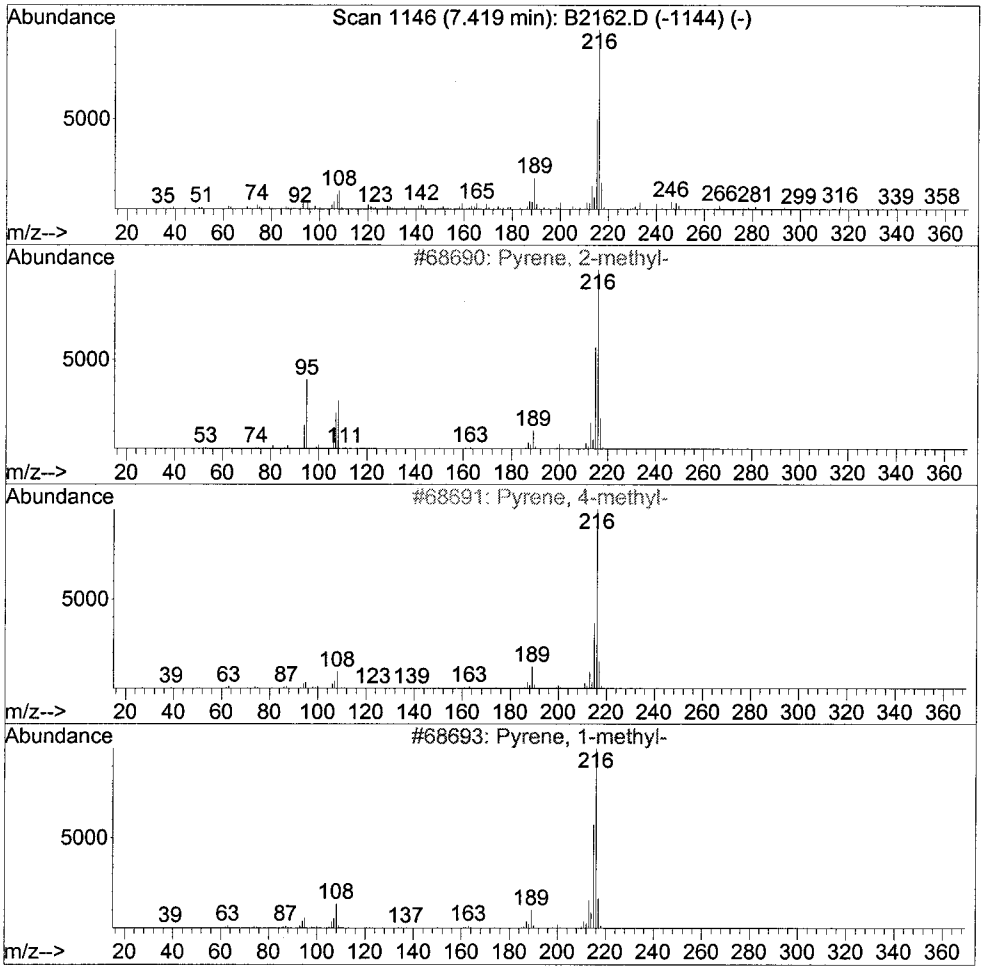
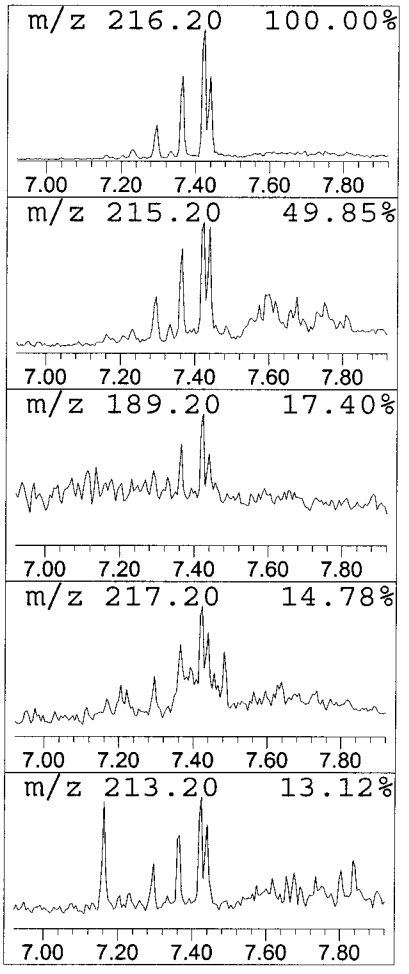
Peak Number 1 Unknown PAH Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.42	5.38 UG	95778	Chrysene-d12	7.84

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrene, 2-methyl-	216	C17H12	003442-78-2	95
2	Pyrene, 4-methyl-	216	C17H12	003353-12-6	93
3	Pyrene, 1-methyl-	216	C17H12	002381-21-7	93
4	Pyrene, 2-methyl-	216	C17H12	003442-78-2	91
5	11H-Benzo[a]fluorene	216	C17H12	000238-84-6	90





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : B2147.D
Acq On : 23 Sep 2013 17:17
Operator : DANA
Sample : AOC-7-4,E13-09198-006,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 24 07:29:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration

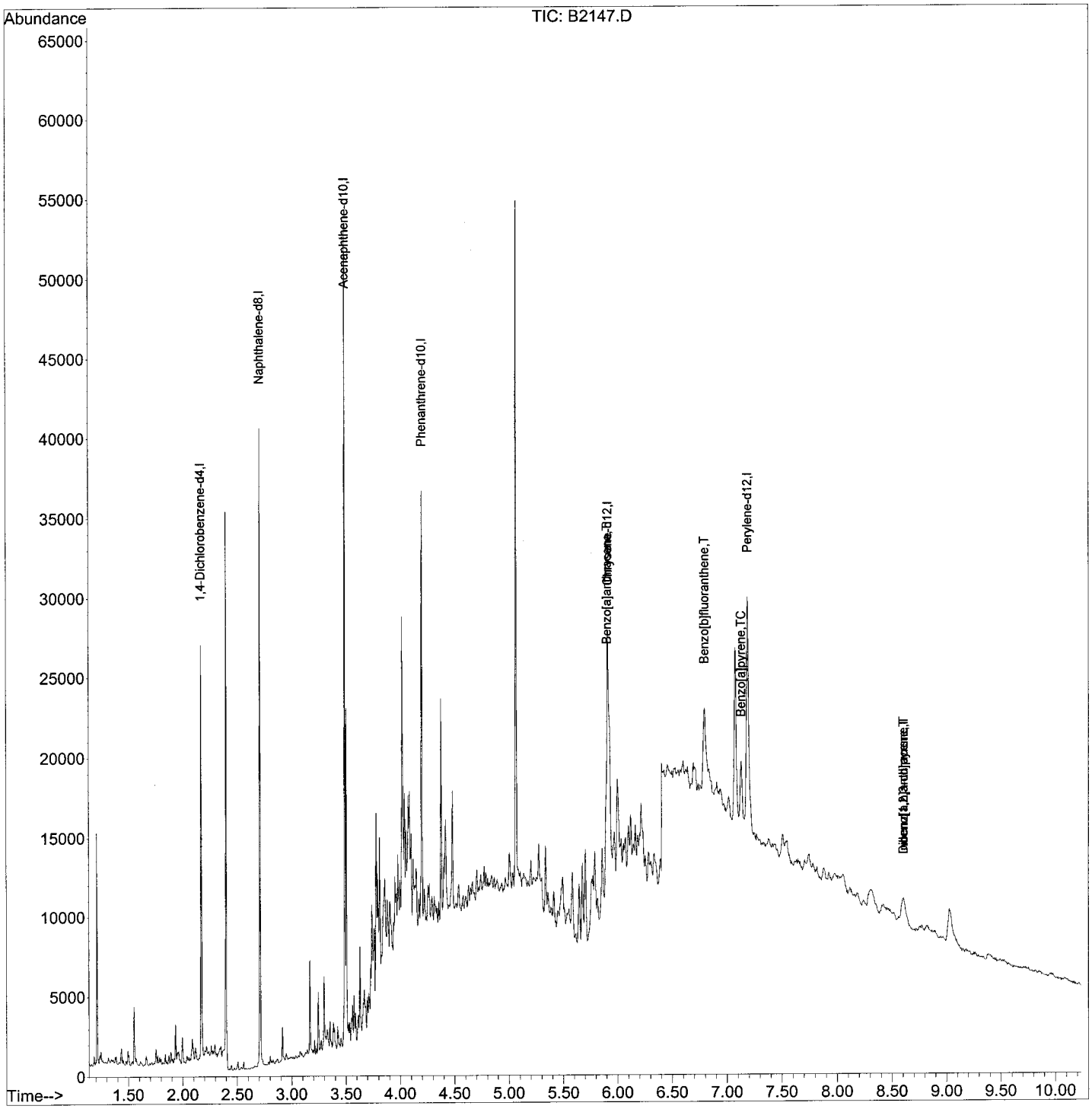
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.17	152	8373m	1.00	UG	-0.01
23) Naphthalene-d8	2.71	136	19558m	1.00	UG	-0.01
43) Acenaphthene-d10	3.49	164	9984	1.00	UG	-0.02
66) Phenanthrene-d10	4.20	188	13782	1.00	UG	-0.02
82) Chrysene-d12	5.91	240	7721	1.00	UG	-0.05
92) Perylene-d12	7.19	264	14877	1.00	UG	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
Target Compounds						Qvalue
88) Benzo[a]anthracene	5.89	228	3310m	0.26	UG	
94) Benzo[b]fluoranthene	6.80	252	2846m	0.24	UG	
96) Benzo[a]pyrene	7.13	252	4665	0.26	UG	100
97) Indeno[1,2,3-cd]pyrene	8.61	276	2110	0.18	UG	100
98) Dibenz[a,h]anthracene	8.60	278	1704	0.19	UG	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : B2147.D
Acq On : 23 Sep 2013 17:17
Operator : DANA
Sample : AOC-7-4,E13-09198-006,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 24 07:29:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : B2163.D
Acq On : 24 Sep 2013 9:35
Operator : DANA
Sample : AOC-7-4,E13-09198-006,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 79 Sample Multiplier: 1

Quant Time: Sep 24 09:58:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration

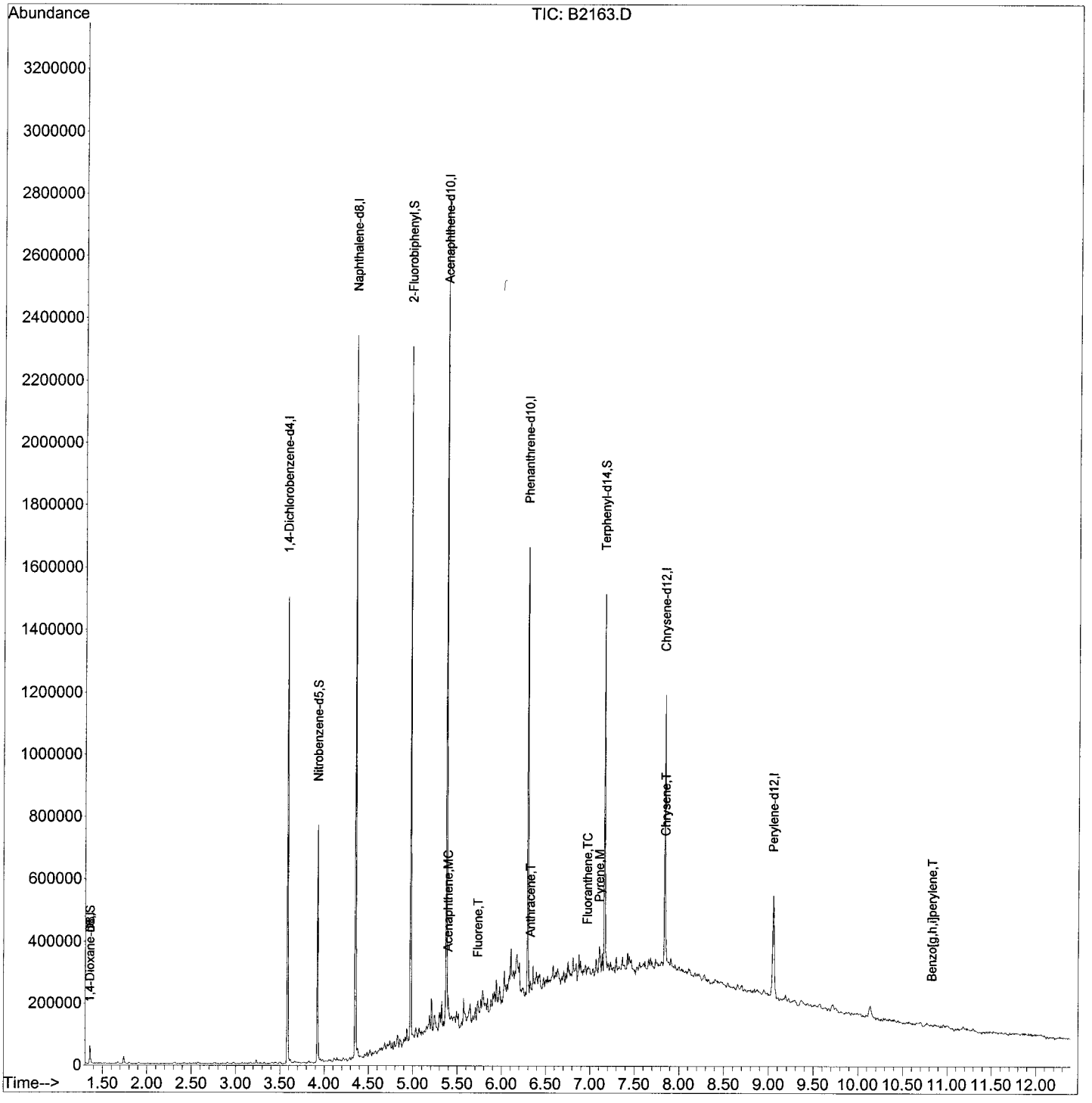
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.58	152	170071m	40.00	UG		-0.02
23) Naphthalene-d8	4.35	136	639296	40.00	UG		-0.02
43) Acenaphthene-d10	5.38	164	359258	40.00	UG		-0.02
66) Phenanthrene-d10	6.30	188	376004	40.00	UG		-0.02
82) Chrysene-d12	7.84	240	227123m	40.00	UG		-0.05
92) Perylene-d12	9.05	264	147138	40.00	UG		-0.08
100) 1,4-Dioxane-d8	1.36	64	10598m	20.00	UG		-0.27
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0	0.00	UG		
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#				
6) Phenol-d5	0.00	99	0d	0.00	UG		
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.00%#				
22) 1,4-Dioxane-D8	1.36	64	10550	8.14	UG		0.00
Spiked Amount 20.000	Range 15 - 110		Recovery = 40.70%				
24) Nitrobenzene-d5	3.92	82	159638	29.23	UG		-0.02
Spiked Amount 50.000	Range 27 - 102		Recovery = 58.46%				
47) 2-Fluorobiphenyl	4.97	172	391649	30.17	UG		-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery = 60.34%				
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG		
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.00%#				
84) Terphenyl-d14	7.16	244	251942m	42.05	UG		-0.04
Spiked Amount 50.000	Range 23 - 124		Recovery = 84.10%				
Target Compounds							Qvalue
55) Acenaphthene	5.39	153	9966	0.98	UG		98
61) Fluorene	5.73	166	4857	0.41	UG	#	40
76) Anthracene	6.33	178	4603	0.48	UG	#	47
79) Fluoranthene	6.97	202	4820	0.51	UG	#	86
83) Pyrene	7.10	202	22919m	3.29	UG		
89) Chrysene	7.85	228	4092m	0.71	UG		
99) Benzo[g,h,i]perylene	10.83	276	3242	0.59	UG	#	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : B2163.D
Acq On : 24 Sep 2013 9:35
Operator : DANA
Sample : AOC-7-4,E13-09198-006,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 79 Sample Multiplier: 1

Quant Time: Sep 24 09:58:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2164.D
Acq On : 24 Sep 2013 9:53
Operator : DANA
Sample : EX._WELL,E13-09198-007,A,1000ml,100,1
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 80 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BD1613.M Tue Sep 24 10:26:48 2013 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : B2148.D
Acq On : 23 Sep 2013 17:32
Operator : DANA
Sample : EX._WELL,E13-09198-007,A,1000ml,100,1
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 24 07:19:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.17	152	7856	1.00	UG	-0.01
23) Naphthalene-d8	2.71	136	22548	1.00	UG	-0.01
43) Acenaphthene-d10	3.49	164	12153	1.00	UG	-0.02
66) Phenanthrene-d10	4.19	188	18301	1.00	UG	-0.04
82) Chrysene-d12	5.90	240	9364	1.00	UG	-0.05
92) Perylene-d12	7.17	264	17511	1.00	UG	-0.06

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

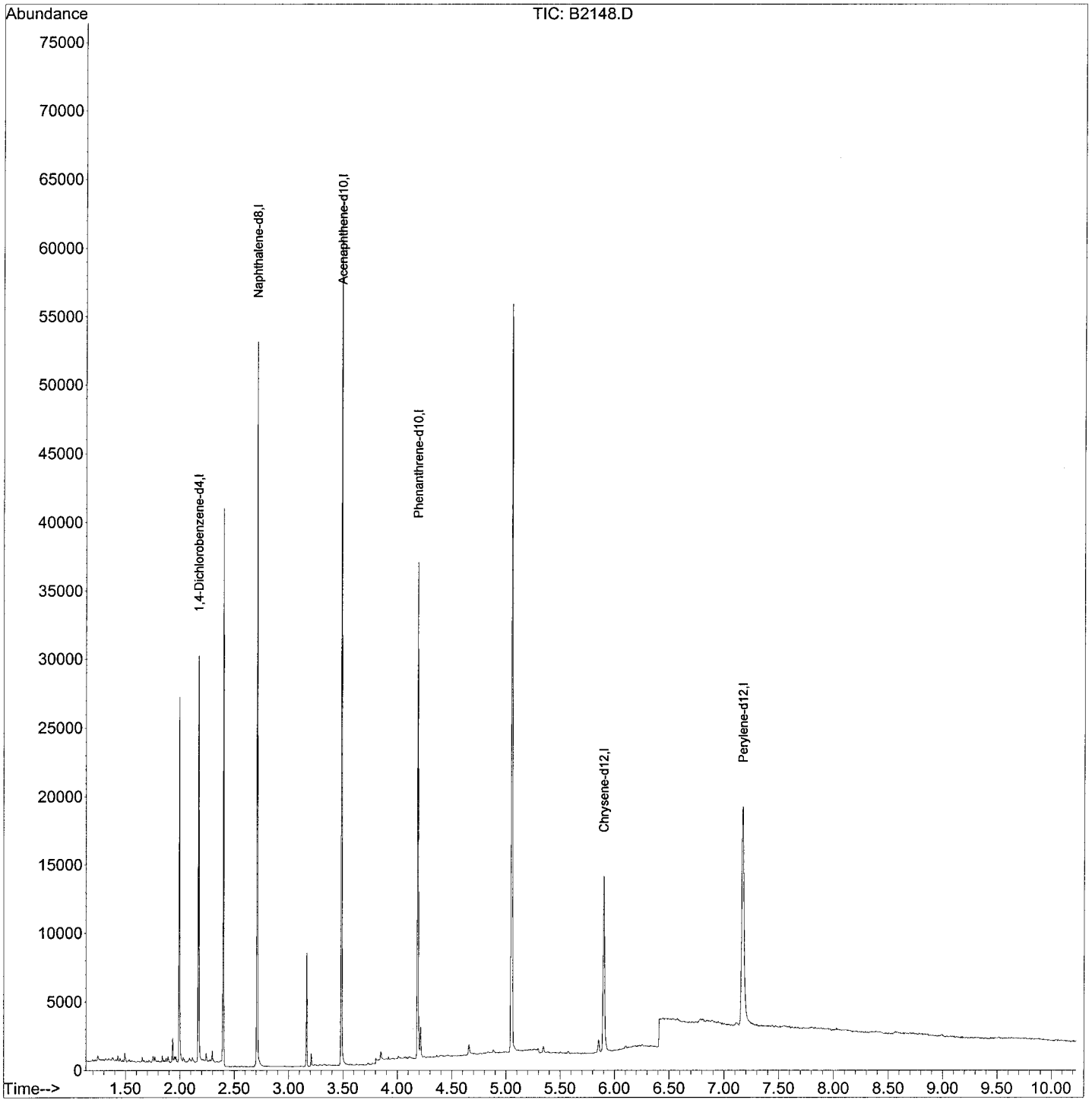
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : B2148.D
Acq On : 23 Sep 2013 17:32
Operator : DANA
Sample : EX._WELL,E13-09198-007,A,1000ml,100,1
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 24 07:19:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : B2164.D
Acq On : 24 Sep 2013 9:53
Operator : DANA
Sample : EX._WELL,E13-09198-007,A,1000ml,100,1
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 80 Sample Multiplier: 1

Quant Time: Sep 24 10:08:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.59	152	206112	40.00	UG	-0.02
23) Naphthalene-d8	4.35	136	791227	40.00	UG	-0.02
43) Acenaphthene-d10	5.38	164	459533	40.00	UG	-0.02
66) Phenanthrene-d10	6.29	188	478239	40.00	UG	-0.03
82) Chrysene-d12	7.84	240	268330	40.00	UG	-0.05
92) Perylene-d12	9.06	264	174346	40.00	UG	-0.07
100) 1,4-Dioxane-d8	1.36	64	12769m	20.00	UG	-0.27
System Monitoring Compounds						
4) 2-Fluorophenol	2.76	112	242354	39.88	UG	-0.02
Spiked Amount 100.000	Range 10 - 100		Recovery = 39.88%			
6) Phenol-d5	3.36	99	329413	43.35	UG	-0.02
Spiked Amount 100.000	Range 10 - 102		Recovery = 43.35%			
22) 1,4-Dioxane-D8	1.36	64	12770	8.13	UG	0.00
Spiked Amount 20.000	Range 15 - 110		Recovery = 40.65%			
24) Nitrobenzene-d5	3.92	82	204445	30.24	UG	-0.02
Spiked Amount 50.000	Range 27 - 102		Recovery = 60.48%			
47) 2-Fluorobiphenyl	4.97	172	502657	30.27	UG	-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery = 60.54%			
70) 2,4,6-Tribromophenol	5.90	330	85012	44.14	UG	-0.03
Spiked Amount 100.000	Range 22 - 115		Recovery = 44.14%			
84) Terphenyl-d14	7.16	244	342289	48.35	UG	-0.04
Spiked Amount 50.000	Range 23 - 124		Recovery = 96.70%			

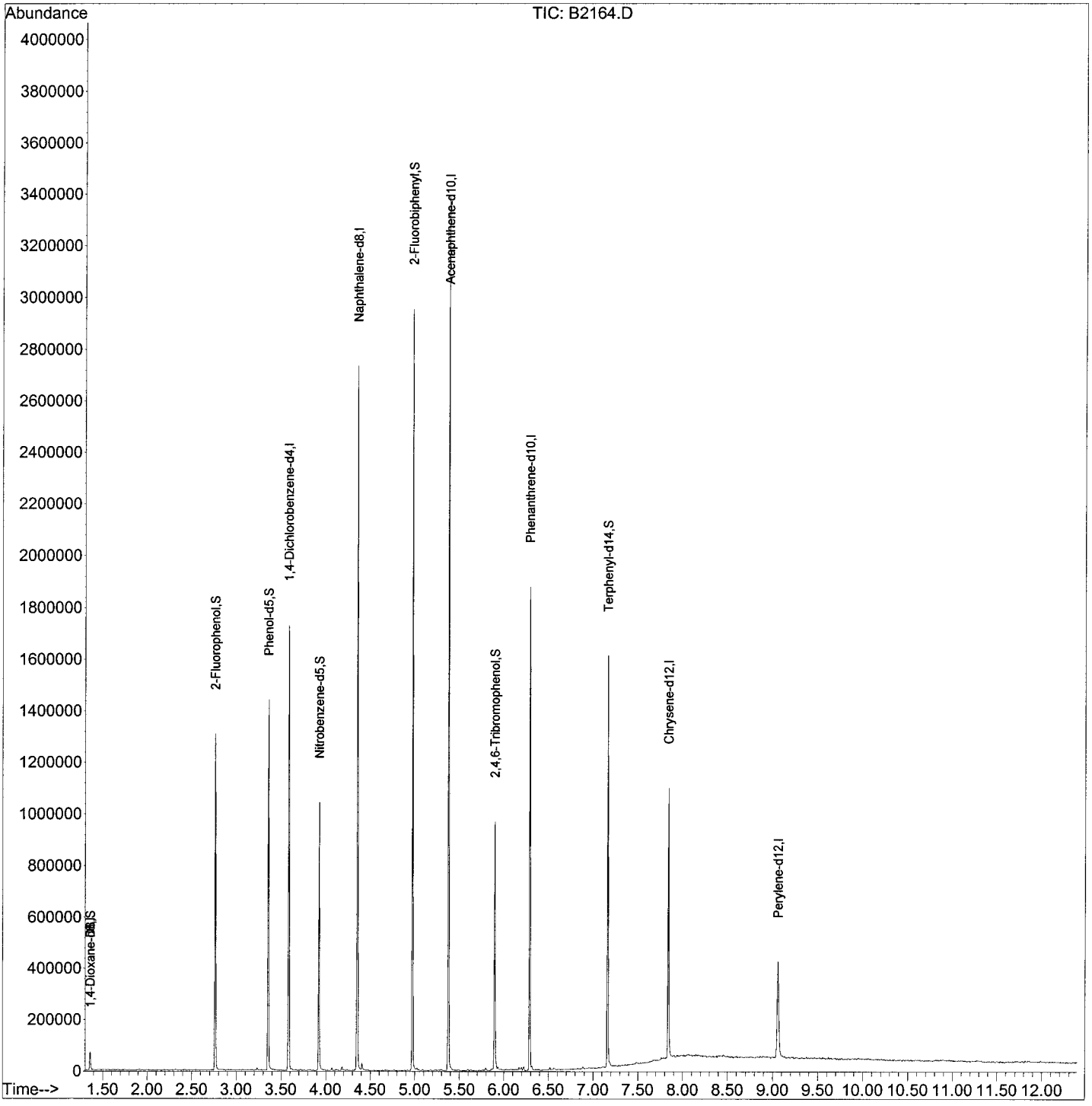
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : B2164.D
Acq On : 24 Sep 2013 9:53
Operator : DANA
Sample : EX._WELL,E13-09198-007,A,1000ml,100,1
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 80 Sample Multiplier: 1

Quant Time: Sep 24 10:08:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : B2163.D
Acq On : 24 Sep 2013 9:35
Operator : DANA
Sample : AOC-7-4,E13-09198-006,A,500ml,100,0.5
Misc : 130920-01,09/20/13,09/18/13,1
ALS Vial : 79 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BD1613.M Tue Sep 24 10:27:01 2013 MSD_B

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA130920-01
Client ID: .
Date Received: NA
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
Data file: B2149.D
SIM Data file: B2140.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.550
Benzaldehyde	ND		1.00	0.180
Phenol	ND		1.00	0.400
Aniline	ND		1.00	0.350
Bis(2-chloroethyl) ether	ND		1.00	0.530
2-Chlorophenol	ND		1.00	0.310
1,3-Dichlorobenzene	ND		1.00	0.430
1,4-Dichlorobenzene	ND		1.00	0.350
Benzyl alcohol	ND		1.00	0.310
1,2-Dichlorobenzene	ND		1.00	0.360
2-Methylphenol	ND		1.00	0.640
Bis(2-chloroisopropyl) ether	ND		1.00	0.620
4-Methylphenol **	ND		1.00	0.380
N-Nitrosodi-n-propylamine	ND		1.00	0.400
Acetophenone	ND		1.00	0.500
3-Methylphenol	ND		1.00	0.380
Hexachloroethane	ND		1.00	0.390
Nitrobenzene	ND		1.00	0.320
Isophorone	ND		1.00	0.350
2-Nitrophenol	ND		1.00	0.220
2,4-Dimethylphenol	ND		1.00	0.350
Bis(2-chloroethoxy) methane	ND		1.00	0.690
Benzoic acid	ND		1.00	0.380
2,4-Dimethylaniline	ND		1.00	0.390
2,4-Dichlorophenol	ND		1.00	0.610
1,2,4-Trichlorobenzene	ND		1.00	0.380
Naphthalene	ND		1.00	0.340
4-Chloroaniline	ND		1.00	0.270
4-Aminotoluene	ND		1.00	0.340
Hexachlorobutadiene	ND		1.00	0.330
Caprolactam	ND		1.00	0.770
2-Aminotoluene	ND		1.00	0.340
4-Chloro-3-methylphenol	ND		1.00	0.290
2-Methylnaphthalene	ND		1.00	0.340
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.320
2,4,5-Trichlorophenol	ND		1.00	0.440
1,1'-Biphenyl	ND		1.00	0.350
2-Chloronaphthalene	ND		1.00	0.320
2-Nitroaniline	ND		1.00	0.230
Dimethyl phthalate	ND		1.00	0.370

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA130920-01
Client ID: .
Date Received: NA
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
Data file: B2149.D
SIM Data file: B2140.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.170
Acenaphthylene	ND		1.00	0.290
3-Nitroaniline	ND		1.00	0.170
Acenaphthene	ND		1.00	0.350
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.630
2,4-Dinitrotoluene	ND		1.00	0.160
Dibenzofuran	ND		1.00	0.360
Diethyl phthalate	ND		1.00	0.400
Fluorene	ND		1.00	0.310
4-Chlorophenyl phenyl ether	ND		1.00	0.390
4-Nitroaniline	ND		1.00	0.540
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.330
2,3,4,6-Tetrachlorophenol	ND		1.00	0.260
4,6-Dinitro-2-methylphenol	ND		1.00	0.240
N-Nitrosodiphenylamine	ND		1.00	0.370
1,2-Diphenylhydrazine	ND		1.00	0.380
4-Bromophenyl phenyl ether	ND		1.00	0.380
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.420
Pentachlorophenol *	ND		0.100	0.100
Phenanthrene	ND		1.00	0.380
Anthracene	ND		1.00	0.350
Carbazole	ND		1.00	0.310
Di-n-butyl phthalate	ND		1.00	0.380
Fluoranthene	ND		1.00	0.290
Benzidine	ND		1.00	0.270
Pyrene	ND		1.00	0.380
3,3'-Dimethylbenzidine	ND		1.00	0.360
Butyl benzyl phthalate	ND		1.00	0.380
3,3'-Dichlorobenzidine	ND		1.00	0.380
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.380
Bis(2-ethylhexyl) phthalate	ND		1.00	0.370
Di-n-octyl phthalate	ND		1.00	0.460
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.460
1,4-Dioxane	ND		1.00	0.430

Total Target Compounds (83): 0

* - RL & MDL from SIM run

** - represents the total of 3+4-Methylphenol

D --- Dilution Performed

B --- Compound detected in Blank

J --- Value Less than RL & great than MDL

C --- Common laboratory contamination

E --- Exceeds upper level of Calibration curve

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA130920-01
Client ID: .
Date Received: NA
Date Extracted: 09/20/2013
Date Analyzed: 09/23/2013
Data file: B2149.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : B2140.D
Acq On : 23 Sep 2013 15:32
Operator : DANA
Sample : .,BLKA130920-01,A,1000ml,100,1
Misc : 130920-01,09/20/13,NA,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 23 15:45:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.17	152	10407m	1.00	UG	-0.01
23) Naphthalene-d8	2.71	136	26749m	1.00	UG	-0.01
43) Acenaphthene-d10	3.49	164	14741m	1.00	UG	-0.02
66) Phenanthrene-d10	4.20	188	21445m	1.00	UG	-0.02
82) Chrysene-d12	5.91	240	11763m	1.00	UG	-0.05
92) Perylene-d12	7.19	264	21407m	1.00	UG	-0.04

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

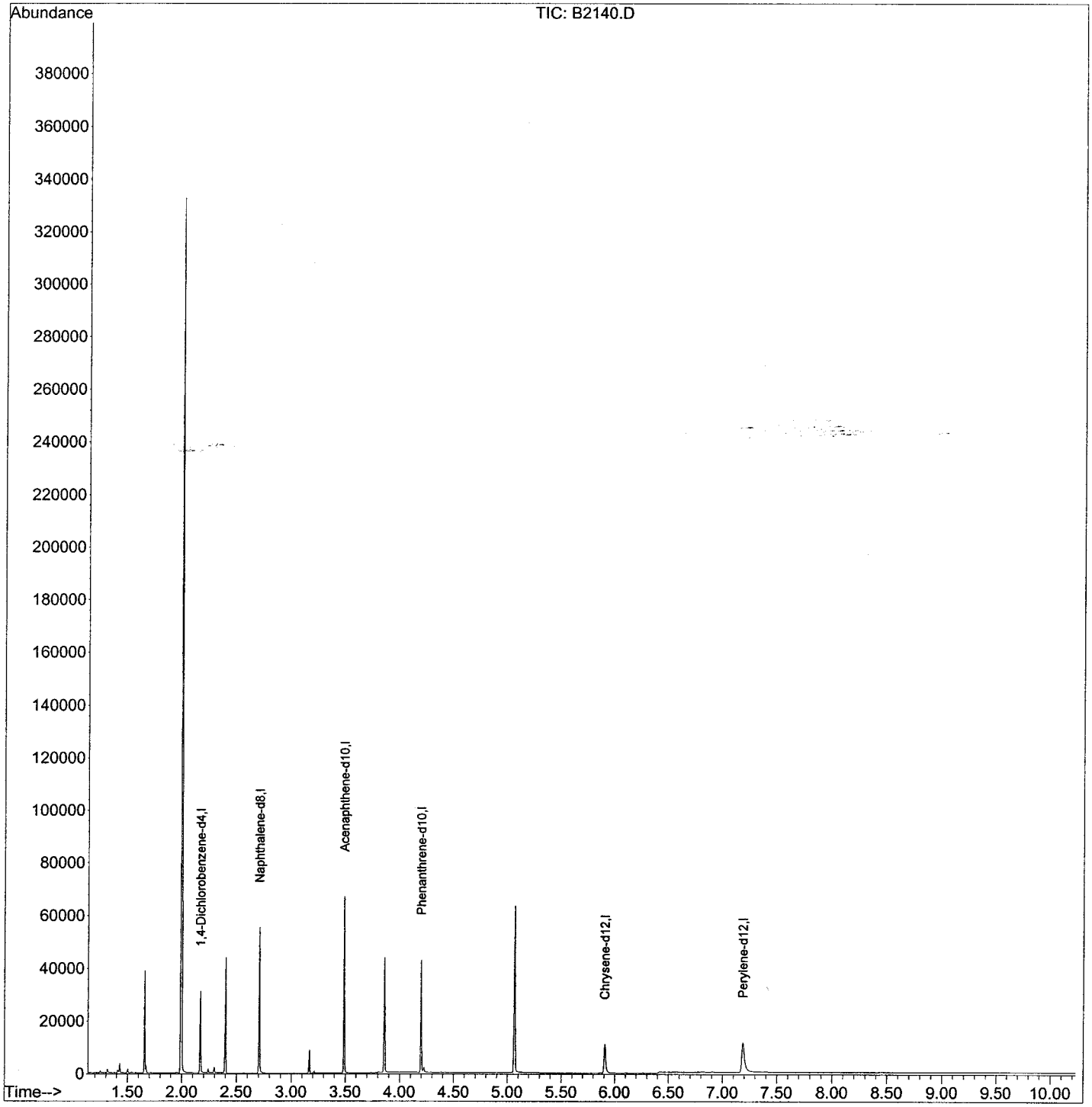
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : B2140.D
Acq On : 23 Sep 2013 15:32
Operator : DANA
Sample : .,BLKA130920-01,A,1000ml,100,1
Misc : 130920-01,09/20/13,NA,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 23 15:45:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\BSIM1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Sep 16 14:30:26 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : B2149.D
Acq On : 23 Sep 2013 17:48
Operator : DANA
Sample : .,BLKA130920-01,A,1000ml,100,1
Misc : 130920-01,09/20/13,NA,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 24 07:31:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.58	152	121730	40.00	UG	-0.02
23) Naphthalene-d8	4.35	136	487059	40.00	UG	-0.02
43) Acenaphthene-d10	5.38	164	303622	40.00	UG	-0.02
66) Phenanthrene-d10	6.29	188	507598	40.00	UG	-0.03
82) Chrysene-d12	7.80	240	340271m	40.00	UG	-0.09
92) Perylene-d12	9.02	264	198240	40.00	UG	-0.11
100) 1,4-Dioxane-d8	1.33	64	8534m	20.00	UG	-0.30
System Monitoring Compounds						
4) 2-Fluorophenol	2.76	112	183665	51.17	UG	-0.02
Spiked Amount 100.000	Range 10 - 100		Recovery = 51.17%			
6) Phenol-d5	3.36	99	231347	51.54	UG	-0.02
Spiked Amount 100.000	Range 10 - 102		Recovery = 51.54%			
22) 1,4-Dioxane-D8	1.33	64	8534	9.20	UG	-0.02
Spiked Amount 20.000	Range 15 - 110		Recovery = 46.00%			
24) Nitrobenzene-d5	3.92	82	122205	29.37	UG	-0.02
Spiked Amount 50.000	Range 27 - 102		Recovery = 58.74%			
47) 2-Fluorobiphenyl	4.97	172	314856	28.69	UG	-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery = 57.38%			
70) 2,4,6-Tribromophenol	5.90	330	86797	42.46	UG	-0.03
Spiked Amount 100.000	Range 22 - 115		Recovery = 42.46%			
84) Terphenyl-d14	7.15	244	333716m	37.17	UG	-0.05
Spiked Amount 50.000	Range 23 - 124		Recovery = 74.34%			

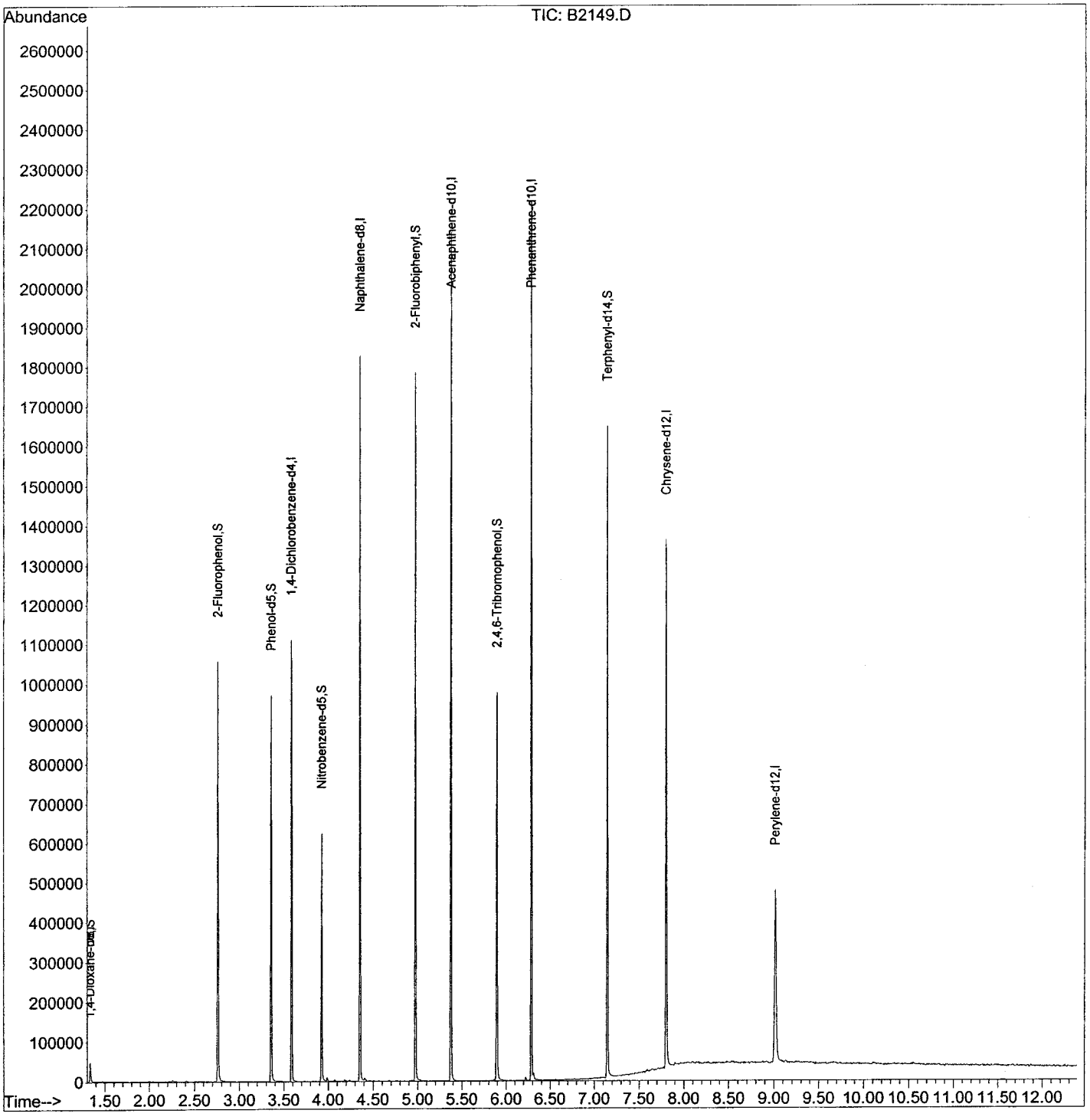
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : B2149.D
Acq On : 23 Sep 2013 17:48
Operator : DANA
Sample : .,BLKA130920-01,A,1000ml,100,1
Misc : 130920-01,09/20/13,NA,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 24 07:31:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 19 09:01:37 2013
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-23-13\
Data File : B2149.D
Acq On : 23 Sep 2013 17:48
Operator : DANA
Sample : .,BLKA130920-01,A,1000ml,100,1
Misc : 130920-01,09/20/13,NA,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BD1613.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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BD1613.M Tue Sep 24 07:54:08 2013 MSD_B

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS130919-02
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
Data file: C0093.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.028
Pyridine	ND		0.033	0.033
Benzaldehyde	ND		0.033	0.020
Phenol	ND		0.033	0.020
Aniline	ND		0.033	0.026
Bis(2-chloroethyl) ether	ND		0.033	0.023
2-Chlorophenol	ND		0.033	0.020
1,3-Dichlorobenzene	ND		0.033	0.020
1,4-Dichlorobenzene	ND		0.033	0.020
Benzyl alcohol	ND		0.033	0.021
1,2-Dichlorobenzene	ND		0.033	0.020
2-Methylphenol	ND		0.033	0.027
Bis(2-chloroisopropyl) ether	ND		0.033	0.020
4-Methylphenol **	ND		0.033	0.020
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.020
3-Methylphenol	ND		0.033	0.020
Hexachloroethane	ND		0.033	0.020
Nitrobenzene	ND		0.033	0.033
Isophorone	ND		0.033	0.022
2-Nitrophenol	ND		0.033	0.025
2,4-Dimethylphenol	ND		0.033	0.026
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Benzoic acid	ND		0.033	0.020
2,4-Dimethylaniline	ND		0.033	0.025
2,4-Dichlorophenol	ND		0.033	0.031
1,2,4-Trichlorobenzene	ND		0.033	0.020
Naphthalene	ND		0.033	0.020
4-Chloroaniline	ND		0.033	0.031
Hexachlorobutadiene	ND		0.033	0.020
Caprolactam	ND		0.033	0.020
4-Chloro-3-methylphenol	ND		0.033	0.031
2-Methylnaphthalene	ND		0.033	0.028
Hexachlorocyclopentadiene	ND		0.033	0.022
2,4,6-Trichlorophenol	ND		0.033	0.020
2,4,5-Trichlorophenol	ND		0.033	0.020
1,1'-Biphenyl	ND		0.033	0.020
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.020

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS130919-02
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
Data file: C0093.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.020
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.028
Acenaphthene	ND		0.033	0.027
2,4-Dinitrophenol	ND		0.033	0.020
4-Nitrophenol	ND		0.033	0.025
2,4-Dinitrotoluene	ND		0.033	0.022
Dibenzofuran	ND		0.033	0.020
Diethyl phthalate	ND		0.033	0.025
Fluorene	ND		0.033	0.020
4-Chlorophenyl phenyl ether	ND		0.033	0.020
4-Nitroaniline	ND		0.033	0.027
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.020
2,3,4,6-Tetrachlorophenol	ND		0.033	0.031
4,6-Dinitro-2-methylphenol	ND		0.033	0.026
N-Nitrosodiphenylamine	ND		0.033	0.020
1,2-Diphenylhydrazine	ND		0.033	0.026
4-Bromophenyl phenyl ether	ND		0.033	0.020
Hexachlorobenzene	ND		0.033	0.027
Atrazine	ND		0.033	0.023
Pentachlorophenol	ND		0.033	0.020
Phenanthrene	ND		0.033	0.022
Anthracene	ND		0.033	0.033
Carbazole	ND		0.033	0.020
Di-n-butyl phthalate	ND		0.033	0.030
Fluoranthene	ND		0.033	0.020
Benzidine	ND		0.033	0.020
Pyrene	ND		0.033	0.025
3,3'-Dimethylbenzidine	ND		0.033	0.020
Butyl benzyl phthalate	ND		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	ND		0.033	0.032
Chrysene	ND		0.033	0.023
Bis(2-ethylhexyl) phthalate	ND		0.033	0.020
Di-n-octyl phthalate	ND		0.033	0.030
Benzo[b]fluoranthene	ND		0.033	0.020
Benzo[k]fluoranthene	ND		0.033	0.031
Benzo[a]pyrene	ND		0.033	0.020
Indeno[1,2,3-cd]pyrene	ND		0.033	0.022
Dibenz[a,h]anthracene	ND		0.033	0.024
Benzo[g,h,i]perylene	ND		0.033	0.030

Total Target Compounds (81): 0

** - represents the total of 3+4-Methylphenol
D — Dilution Performed
B — Compound detected in Blank
J — Value Less than RL & great than MDL
C — Common laboratory contamination
E — Exceeds upper level of Calibration curve

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS130919-02
Client ID: .
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/19/2013
Data file: C0093.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : C0093.D
Acq On : 19 Sep 2013 13:16
Operator : EDM
Sample : .,BLKS130919-02,S,15.00g,0,0.5
Misc : 130919-02,09/19/13,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 19 13:27:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.46	152	159395	40.00	UG	-0.01
23) Naphthalene-d8	3.01	136	646626	40.00	UG	-0.01
43) Acenaphthene-d10	3.83	164	383926	40.00	UG	-0.03
66) Phenanthrene-d10	4.61	188	538973	40.00	UG	-0.04
82) Chrysene-d12	6.37	240	401704	40.00	UG	-0.06
92) Perylene-d12	7.75	264	250870	40.00	UG	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	1.95	112	299768	54.03	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 54.03%			
6) Phenol-d5	2.29	99	363924	55.50	UG	-0.01
Spiked Amount 100.000	Range 25 - 108		Recovery = 55.50%			
24) Nitrobenzene-d5	2.70	82	177008	33.82	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 67.64%			
47) 2-Fluorobiphenyl	3.48	172	458023	35.29	UG	-0.02
Spiked Amount 50.000	Range 33 - 91		Recovery = 70.58%			
70) 2,4,6-Tribromophenol	4.24	330	100907	58.55	UG	-0.04
Spiked Amount 100.000	Range 37 - 115		Recovery = 58.55%			
84) Terphenyl-d14	5.51	244	418333	39.29	UG	-0.09
Spiked Amount 50.000	Range 15 - 122		Recovery = 78.58%			

Target Compounds	Qvalue

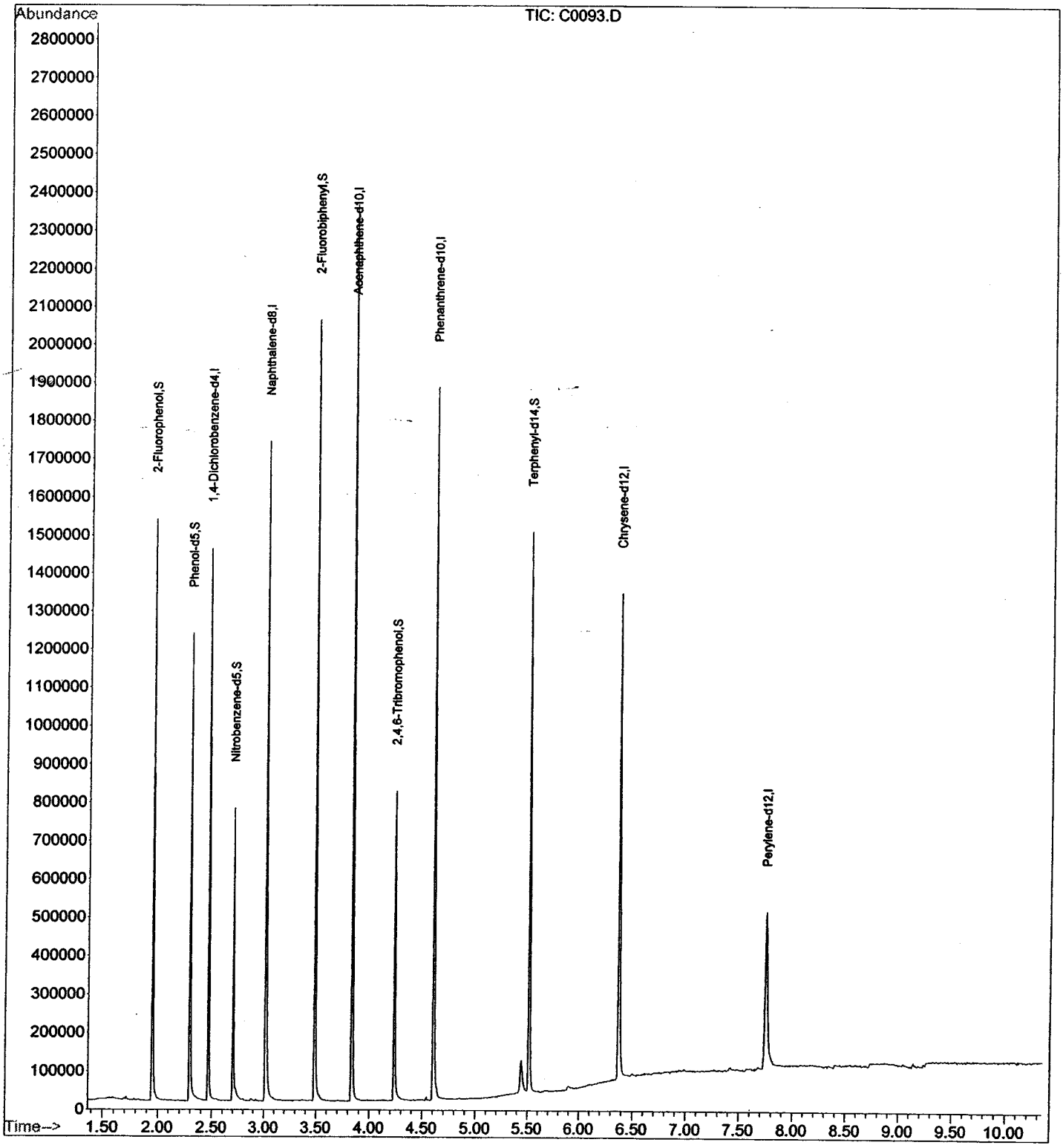
(#) = qualifier out of range (m) = manual integration (+) = signals summed

E13-09198 0249

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : C0093.D
Acq On : 19 Sep 2013 13:16
Operator : EDM
Sample : .,BLKS130919-02,S,15.00g,0,0.5
Misc : 130919-02,09/19/13,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 19 13:27:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Sep 11 11:43:42 2013
Response via : Initial Calibration



E13-09198 0250

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-19-13\
Data File : C0093.D
Acq On : 19 Sep 2013 13:16
Operator : EDM
Sample : .,BLKS130919-02,S,15.00g,0,0.5
Misc : 130919-02,09/19/13,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2213.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2213.M Fri Sep 20 09:35:49 2013 RPT1

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKA130923-16	AQUEOUS	79		98		98		108	
FB091713	09228-008	AQUEOUS	71		92		88		99	
EX._WELL	09198-007	AQUEOUS	66		91		82		98	
PCB	09198-007MS	AQUEOUS	59		80		74		104	
PCB	09198-007MSD	AQUEOUS	64		83		80		100	
PCB	LCSA130923-16	AQUEOUS	67		90		83		105	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS130923-09	SOIL	90		112		110		139	
PCB	LCSS130923-09	SOIL	90		119		110		142	
SR-10-SW-6	09308-001	SOIL	86		120		103		133	
SR-10-B-5	09308-002	SOIL	92		115		111		141	
SR-10-B-7	09308-003	SOIL	96		138		116		147	
SR-10-B-8	09308-004	SOIL	93		121		115		144	
SR-10-B-4	09308-005	SOIL	95		137		117		141	
SR-10-B-3	09308-006	SOIL	96		124		115		133	
C-1	09190-001	SOLID	85		96		99		121	
C-2	09190-002	SOLID	83		92		98		123	
C-3	09190-003	SOLID	83		88		96		112	
BG-1A	09192-001	SOIL	88		107		108		127	
BG-1B	09192-002	SOIL	87		99		105		116	
BG-2	09192-003	SOIL	87		101		104		129	
AOC-9-1/0-	09198-001	SOIL	85		131		107		139	
AOC-9-2/0-	09198-002	SOIL	87		108		105		113	
AOC-12-3/1	09198-003	SOIL	97		135		117		123	
SW-1	09252-001	SOIL	85		94		79		114	
SW-2	09252-002	SOIL	90		76		77		116	
SW-3	09252-003	SOIL	74		79		74		106	
SW-4	09252-004	SOIL	74		81		73		104	
B-5	09252-005	SOIL	71		80		77		117	
PCB	09252-002MS	SOIL	76		72		71		99	
PCB	09252-002MSD	SOIL	73		80		74		99	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

AQUEOUS PCB LCS ACCURACY RECOVERY

Matrix spike Lab sample ID: LCSA130923-16

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	393.4	79	40 - 140
Aroclor-1260	500.0	0.0	446.6	89	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB LCS ACCURACY RECOVERY

Matrix spike Lab sample ID: LCSS130923-09

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	519.0	104	40 - 140
Aroclor-1260	500.0	0.0	551.7	110	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

AQUEOUS PCB MS/MSD ACCURACY RECOVERY

Matrix spike Lab sample ID: 09198-007

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	412.2	82	40 - 140
Aroclor-1260	500.0	0.0	489.5	98	40 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	422.2	84	2	50	40 - 140
Aroclor-1260	0.0	486.2	97	1	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

SOIL PCB MS/MSD ACCURACY RECOVERY

Matrix spike Lab sample ID: 09252-002

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	340.3	68	40 - 140
Aroclor-1260	500.0	0.0	520.3	104	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	333.7	67	1	50	40 - 140
Aroclor-1260	0.0	457.1	91	13	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

PCB METHOD BLANK SUMMARY

Lab File ID:	R4385.D	Instrument ID:	GC-R
Date Extracted:	09/23/2013	Matrix:	AQUEOUS
Date Analyzed:	09/24/2013	Time Analyzed:	16:40

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
FB091713	09228-008	09/24/2013	16:58
EX._WELL	09198-007	09/24/2013	17:15
PCB	09198-007MS	09/24/2013	17:33
PCB	09198-007MSD	09/24/2013	17:50
PCB	LCSA130923-16	09/24/2013	18:08

PCB METHOD BLANK SUMMARY

Lab File ID: R4324.D

Instrument ID: GC-R

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/23/2013

Time Analyzed: 14:50

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PCB	LCSS130923-09	09/23/2013	15:07
SR-10-SW-6	09308-001	09/23/2013	15:24
SR-10-B-5	09308-002	09/23/2013	15:42
SR-10-B-7	09308-003	09/23/2013	15:59
SR-10-B-8	09308-004	09/23/2013	16:17
SR-10-B-4	09308-005	09/23/2013	16:34
SR-10-B-3	09308-006	09/23/2013	16:52
C-1	09190-001	09/23/2013	18:19
C-2	09190-002	09/23/2013	18:37
C-3	09190-003	09/23/2013	18:54
BG-1A	09192-001	09/23/2013	19:29
BG-1B	09192-002	09/23/2013	19:46
BG-2	09192-003	09/23/2013	20:04
AOC-9-1/0-	09198-001	09/23/2013	20:21
AOC-9-2/0-	09198-002	09/23/2013	20:38
AOC-12-3/1	09198-003	09/23/2013	20:56
SW-1	09252-001	09/23/2013	21:13
SW-2	09252-002	09/23/2013	21:31
SW-3	09252-003	09/23/2013	21:48
SW-4	09252-004	09/23/2013	22:05
B-5	09252-005	09/23/2013	22:23
PCB	09252-002MS	09/23/2013	22:40
PCB	09252-002MSD	09/23/2013	22:58

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.21	3.21	3.21	3.21	3.20	3.21	3.14	3.28
Aroclor-1016 {2}	4.04	4.04	4.04	4.04	4.03	4.04	3.97	4.11
Aroclor-1016 {3}	4.59	4.59	4.59	4.59	4.59	4.59	4.52	4.66
Aroclor-1016 {4}	5.10	5.10	5.10	5.10	5.10	5.10	5.03	5.17
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.12				2.05	2.19
Aroclor-1221 {2}			3.01				2.94	3.08
Aroclor-1221 {3}			3.13				3.06	3.20
Aroclor-1221 {4}			3.21				3.14	3.28
Aroclor-1221 {5}			3.80				3.73	3.87
Aroclor-1232			3.21				3.14	3.28
Aroclor-1232 {2}			4.04				3.97	4.11
Aroclor-1232 {3}			4.70				4.63	4.77
Aroclor-1232 {4}			5.30				5.23	5.37
Aroclor-1232 {5}			5.49				5.42	5.56
Aroclor-1242			4.04				3.97	4.11
Aroclor-1242 {2}			4.98				4.91	5.05
Aroclor-1242 {3}			5.30				5.23	5.37
Aroclor-1242 {4}			6.00				5.93	6.07
Aroclor-1242 {5}			6.27				6.20	6.34
Aroclor-1248			4.44				4.36	4.52
Aroclor-1248 {2}			4.98				4.90	5.06
Aroclor-1248 {3}			5.30				5.22	5.38
Aroclor-1248 {4}			6.00				5.92	6.08
Aroclor-1248 {5}			6.27				6.19	6.35
Aroclor-1254			6.39				6.31	6.47
Aroclor-1254 {2}			6.83				6.75	6.91
Aroclor-1254 {3}			7.00				6.91	7.09
Aroclor-1254 {4}			7.45				7.36	7.54
Aroclor-1254 {5}			8.29				8.20	8.38
Aroclor-1260	8.29	8.29	8.29	8.29	8.29	8.29	7.39	9.19
Aroclor-1260 {2}	8.97	8.96	8.96	8.96	8.96	8.96	8.06	9.86
Aroclor-1260 {3}	9.45	9.45	9.44	9.44	9.44	9.45	8.55	10.35
Aroclor-1260 {4}	9.94	9.93	9.93	9.93	9.93	9.93	9.03	10.83
Aroclor-1260 {5}	11.00	11.00	11.00	10.99	10.99	11.00	10.10	11.90

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R

GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	243865	216790	199305	183366	184539	205573	12.32
Aroclor-1016 {2}	329663	293312	273907	254375	251534	280558	11.48
Aroclor-1016 {3}	421622	378312	356112	329359	325022	362086	10.95
Aroclor-1016 {4}	196004	176563	161796	145945	139733	164008	13.98
Aroclor-1016 {5}	322251	290331	282382	257409	252936	281062	9.96
Aroclor-1221			98455				
Aroclor-1221 {2}			147422				
Aroclor-1221 {3}			104493				
Aroclor-1221 {4}			357450				
Aroclor-1221 {5}			79152				
Aroclor-1232			248609				
Aroclor-1232 {2}			144312				
Aroclor-1232 {3}			125680				
Aroclor-1232 {4}			141484				
Aroclor-1232 {5}			176247				
Aroclor-1242			232340				
Aroclor-1242 {2}			149217				
Aroclor-1242 {3}			212227				
Aroclor-1242 {4}			308432				
Aroclor-1242 {5}			255832				
Aroclor-1248			550496				
Aroclor-1248 {2}			319120				
Aroclor-1248 {3}			418121				
Aroclor-1248 {4}			650924				
Aroclor-1248 {5}			480676				
Aroclor-1254			627382				
Aroclor-1254 {2}			399643				
Aroclor-1254 {3}			752699				
Aroclor-1254 {4}			788362				
Aroclor-1254 {5}			705322				
Aroclor-1260	757128	754434	788799	691182	715219	741352	5.17
Aroclor-1260 {2}	377531	353479	367477	314922	322854	347253	7.89
Aroclor-1260 {3}	833253	861623	929397	797453	840707	852487	5.73
Aroclor-1260 {4}	442035	422694	469045	403585	434405	434353	5.57
Aroclor-1260 {5}	232694	194352	209736	173881	171745	196482	13.01
					Average %RSD		9.61

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.38	3.38	3.38	3.38	3.39	3.38	3.31	3.45
Aroclor-1016 {2}	3.94	3.94	3.94	3.94	3.96	3.94	3.87	4.01
Aroclor-1016 {3}	4.66	4.66	4.66	4.66	4.67	4.66	4.59	4.73
Aroclor-1016 {4}	4.86	4.86	4.86	4.86	4.87	4.86	4.79	4.93
Aroclor-1016 {5}	5.03	5.03	5.03	5.03	5.04	5.03	4.96	5.10
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.08				3.01	3.15
Aroclor-1221 {3}			3.29				3.22	3.36
Aroclor-1221 {4}			3.38				3.31	3.45
Aroclor-1221 {5}			4.66				4.59	4.73
Aroclor-1232			3.38				3.31	3.45
Aroclor-1232 {2}			4.31				4.24	4.38
Aroclor-1232 {3}			4.86				4.79	4.93
Aroclor-1232 {4}			5.03				4.96	5.10
Aroclor-1232 {5}			5.61				5.54	5.68
Aroclor-1242			4.31				4.24	4.38
Aroclor-1242 {2}			5.03				4.96	5.10
Aroclor-1242 {3}			5.61				5.54	5.68
Aroclor-1242 {4}			5.76				5.69	5.83
Aroclor-1242 {5}			6.30				6.23	6.37
Aroclor-1248			4.66				4.58	4.74
Aroclor-1248 {2}			5.22				5.14	5.30
Aroclor-1248 {3}			5.61				5.53	5.69
Aroclor-1248 {4}			5.76				5.68	5.84
Aroclor-1248 {5}			6.11				6.03	6.19
Aroclor-1254			6.59				6.51	6.67
Aroclor-1254 {2}			7.17				7.09	7.25
Aroclor-1254 {3}			7.60				7.51	7.69
Aroclor-1254 {4}			7.78				7.69	7.87
Aroclor-1254 {5}			8.59				8.50	8.68
Aroclor-1260	7.35	7.35	7.35	7.35	7.36	7.35	6.45	8.25
Aroclor-1260 {2}	7.60	7.60	7.60	7.60	7.61	7.60	6.70	8.50
Aroclor-1260 {3}	9.18	9.18	9.18	9.18	9.19	9.18	8.28	10.08
Aroclor-1260 {4}	9.69	9.69	9.69	9.69	9.70	9.69	8.79	10.59
Aroclor-1260 {5}	10.28	10.28	10.28	10.27	10.28	10.28	9.38	11.18

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	362241	319133	272025	248097	250722	290444	16.94
Aroclor-1016 {2}	743962	638498	551705	509099	507402	590133	17.13
Aroclor-1016 {3}	1634305	1339093	1240491	1157160	1153188	1304848	15.26
Aroclor-1016 {4}	640757	532369	529369	479376	469296	530233	12.83
Aroclor-1016 {5}	511215	424107	401382	365779	361833	412863	14.71
Aroclor-1221			133932				
Aroclor-1221 {2}			198787				
Aroclor-1221 {3}			133461				
Aroclor-1221 {4}			484806				
Aroclor-1221 {5}			92989				
Aroclor-1232			337701				
Aroclor-1232 {2}			127755				
Aroclor-1232 {3}			282764				
Aroclor-1232 {4}			212621				
Aroclor-1232 {5}			294142				
Aroclor-1242			199335				
Aroclor-1242 {2}			339120				
Aroclor-1242 {3}			443826				
Aroclor-1242 {4}			366761				
Aroclor-1242 {5}			720540				
Aroclor-1248			766481				
Aroclor-1248 {2}			1140084				
Aroclor-1248 {3}			814777				
Aroclor-1248 {4}			687633				
Aroclor-1248 {5}			406423				
Aroclor-1254			915839				
Aroclor-1254 {2}			721245				
Aroclor-1254 {3}			474223				
Aroclor-1254 {4}			703201				
Aroclor-1254 {5}			1013959				
Aroclor-1260	585399	517611	452177	396373	395981	469508	17.43
Aroclor-1260 {2}	883662	775223	680288	591735	587886	703758	17.97
Aroclor-1260 {3}	674621	625967	589609	507374	529398	585394	11.73
Aroclor-1260 {4}	1367534	1326755	1291089	1100209	1160368	1249191	9.12
Aroclor-1260 {5}	929561	946699	919373	778085	827578	880259	8.35
					Average %RSD		14.15

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.66				8.54	8.78
Aroclor-1262 {2}			9.45				9.33	9.57
Aroclor-1262 {3}			10.08				9.96	10.20
Aroclor-1262 {4}			10.16				10.04	10.28
Aroclor-1262 {5}			11.00				10.88	11.12
Aroclor-1268			10.08				9.96	10.20
Aroclor-1268 {2}			10.16				10.04	10.28
Aroclor-1268 {3}			10.63				10.51	10.75
Aroclor-1268 {4}			10.76				10.64	10.88
Aroclor-1268 {5}			11.60				11.48	11.72

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.18				9.06	9.30
Aroclor-1262 {2}			9.69				9.57	9.81
Aroclor-1262 {3}			10.18				10.06	10.30
Aroclor-1262 {4}			10.27				10.15	10.39
Aroclor-1262 {5}			10.87				10.75	10.99
Aroclor-1268			10.18				10.06	10.30
Aroclor-1268 {2}			10.26				10.14	10.38
Aroclor-1268 {3}			10.51				10.39	10.63
Aroclor-1268 {4}			10.65				10.53	10.77
Aroclor-1268 {5}			11.73				11.61	11.85

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/30/2013 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R3851.D R3850.D R3849.D R3848.D R3847.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			326215				
Aroclor-1262 {2}			1281764				
Aroclor-1262 {3}			491930				
Aroclor-1262 {4}			563512				
Aroclor-1262 {5}			432239				
Aroclor-1268			1292652				
Aroclor-1268 {2}			1452313				
Aroclor-1268 {3}			1123481				
Aroclor-1268 {4}			297485				
Aroclor-1268 {5}			3490031				

GC Column (2nd): DB-1701P

Data File: R3851.C R3850.C R3849.C R3848.C R3847.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			817810				
Aroclor-1262 {2}			1844146				
Aroclor-1262 {3}			599368				
Aroclor-1262 {4}			1277066				
Aroclor-1262 {5}			225009				
Aroclor-1268			1847615				
Aroclor-1268 {2}			1965341				
Aroclor-1268 {3}			1551936				
Aroclor-1268 {4}			432171				
Aroclor-1268 {5}			4623946				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-R

Data File: R4384.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	189511	7.81
Aroclor-1016 {2}	4.04	3.97	4.11	280558	252511	10.00
Aroclor-1016 {3}	4.59	4.52	4.66	362086	329692	8.95
Aroclor-1016 {4}	5.10	5.03	5.17	164008	154438	5.84
Aroclor-1016 {5}	5.50	5.42	5.56	281062	258521	8.02
Aroclor-1260	8.30	7.39	9.19	741352	711637	4.01
Aroclor-1260 {2}	8.97	8.06	9.86	347253	326062	6.10
Aroclor-1260 {3}	9.45	8.55	10.35	852487	823289	3.43
Aroclor-1260 {4}	9.94	9.03	10.83	434353	419304	3.46
Aroclor-1260 {5}	11.00	10.10	11.90	196482	215258	9.56

Data File: R4384.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.39	3.31	3.45	290444	325519	12.08
Aroclor-1016 {2}	3.95	3.87	4.01	590133	645596	9.40
Aroclor-1016 {3}	4.67	4.59	4.73	1304848	1442551	10.55
Aroclor-1016 {4}	4.87	4.79	4.93	530233	609175	14.89
Aroclor-1016 {5}	5.03	4.96	5.10	412863	462335	11.98
Aroclor-1260	7.35	6.45	8.25	469508	506599	7.90
Aroclor-1260 {2}	7.60	6.70	8.50	703758	742963	5.57
Aroclor-1260 {3}	9.18	8.28	10.08	585394	623034	6.43
Aroclor-1260 {4}	9.69	8.79	10.59	1249191	1359070	8.80
Aroclor-1260 {5}	10.28	9.38	11.18	880259	977931	11.10

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-R

Data File: R4391.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	201297	2.08
Aroclor-1016 {2}	4.04	3.97	4.11	280558	269173	4.06
Aroclor-1016 {3}	4.59	4.52	4.66	362086	352706	2.59
Aroclor-1016 {4}	5.10	5.03	5.17	164008	169095	3.10
Aroclor-1016 {5}	5.50	5.42	5.56	281062	276769	1.53
Aroclor-1260	8.30	7.39	9.19	741352	762532	2.86
Aroclor-1260 {2}	8.97	8.06	9.86	347253	352612	1.54
Aroclor-1260 {3}	9.45	8.55	10.35	852487	901730	5.78
Aroclor-1260 {4}	9.94	9.03	10.83	434353	455080	4.77
Aroclor-1260 {5}	11.00	10.10	11.90	196482	213807	8.82

Data File: R4391.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.38	3.31	3.45	290444	341782	17.68
Aroclor-1016 {2}	3.94	3.87	4.01	590133	678384	14.95
Aroclor-1016 {3}	4.66	4.59	4.73	1304848	1528331	17.13
Aroclor-1016 {4}	4.86	4.79	4.93	530233	595111	12.24
Aroclor-1016 {5}	5.03	4.96	5.10	412863	493170	19.45
Aroclor-1260	7.35	6.45	8.25	469508	543709	15.80
Aroclor-1260 {2}	7.60	6.70	8.50	703758	812275	15.42
Aroclor-1260 {3}	9.18	8.28	10.08	585394	680332	16.22
Aroclor-1260 {4}	9.69	8.79	10.59	1249191	1411252	12.97
Aroclor-1260 {5}	10.27	9.38	11.18	880259	1032666	17.31

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/23/2013 **Instrument ID:** GC-R

Data File: R4323.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	186444	9.31
Aroclor-1016 {2}	4.04	3.97	4.11	280558	241198	14.03
Aroclor-1016 {3}	4.60	4.52	4.66	362086	307565	15.06
Aroclor-1016 {4}	5.10	5.03	5.17	164008	145980	10.99
Aroclor-1016 {5}	5.50	5.42	5.56	281062	234786	16.46
Aroclor-1260	8.30	7.39	9.19	741352	678348	8.50
Aroclor-1260 {2}	8.97	8.06	9.86	347253	321990	7.27
Aroclor-1260 {3}	9.45	8.55	10.35	852487	843848	1.01
Aroclor-1260 {4}	9.94	9.03	10.83	434353	432543	0.42
Aroclor-1260 {5}	11.00	10.10	11.90	196482	230112	17.12

Data File: R4323.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.38	3.31	3.45	290444	301822	3.92
Aroclor-1016 {2}	3.94	3.87	4.01	590133	588782	0.23
Aroclor-1016 {3}	4.66	4.59	4.73	1304848	1264386	3.10
Aroclor-1016 {4}	4.86	4.79	4.93	530233	539561	1.76
Aroclor-1016 {5}	5.03	4.96	5.10	412863	404924	1.92
Aroclor-1260	7.35	6.45	8.25	469508 *	509989	8.62
Aroclor-1260 {2}	7.60	6.70	8.50	703758	682488	3.02
Aroclor-1260 {3}	9.18	8.28	10.08	585394	624431	6.67
Aroclor-1260 {4}	9.69	8.79	10.59	1249191	1398890	11.98
Aroclor-1260 {5}	10.27	9.38	11.18	880259	1003380	13.99

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/23/2013 **Instrument ID:** GC-R

Data File: R4332.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	187589	8.75
Aroclor-1016 {2}	4.04	3.97	4.11	280558	243331	13.27
Aroclor-1016 {3}	4.60	4.52	4.66	362086	310565	14.23
Aroclor-1016 {4}	5.10	5.03	5.17	164008	148918	9.20
Aroclor-1016 {5}	5.50	5.42	5.56	281062	236012	16.03
Aroclor-1260	8.30	7.39	9.19	741352	672866	9.24
Aroclor-1260 {2}	8.97	8.06	9.86	347253	317620	8.53
Aroclor-1260 {3}	9.45	8.55	10.35	852487	838664	1.62
Aroclor-1260 {4}	9.94	9.03	10.83	434353	427646	1.54
Aroclor-1260 {5}	11.00	10.10	11.90	196482	201880	2.75

Data File: R4332.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.38	3.31	3.45	290444	307950	6.03
Aroclor-1016 {2}	3.94	3.87	4.01	590133	600089	1.69
Aroclor-1016 {3}	4.66	4.59	4.73	1304848	1293714	0.85
Aroclor-1016 {4}	4.86	4.79	4.93	530233	552974	4.29
Aroclor-1016 {5}	5.03	4.96	5.10	412863	416469	0.87
Aroclor-1260	7.35	6.45	8.25	469508	520248	10.81
Aroclor-1260 {2}	7.60	6.70	8.50	703758	692750	1.56
Aroclor-1260 {3}	9.18	8.28	10.08	585394	608695	3.98
Aroclor-1260 {4}	9.69	8.79	10.59	1249191	1401840	12.22
Aroclor-1260 {5}	10.27	9.38	11.18	880259	1035940	17.69

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-R

Data File: R4349.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.14	3.28	205573	168875	17.85
Aroclor-1016 {2}	4.04	3.97	4.11	280558	240457	14.29
Aroclor-1016 {3}	4.60	4.52	4.66	362086	323379	10.69
Aroclor-1016 {4}	5.11	5.03	5.17	164008	139061	15.21
Aroclor-1016 {5}	5.50	5.42	5.56	281062	245336	12.71
Aroclor-1260	8.30	7.39	9.19	741352	619180	16.48
Aroclor-1260 {2}	8.97	8.06	9.86	347253	287081	17.33
Aroclor-1260 {3}	9.45	8.55	10.35	852487	717501	15.83
Aroclor-1260 {4}	9.94	9.03	10.83	434353	359552	17.22
Aroclor-1260 {5}	11.01	10.10	11.90	196482	171459	12.74

Data File: R4349.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.38	3.31	3.45	290444	276503	4.80
Aroclor-1016 {2}	3.94	3.87	4.01	590133	538608	8.73
Aroclor-1016 {3}	4.67	4.59	4.73	1304848	1184121	9.25
Aroclor-1016 {4}	4.87	4.79	4.93	530233	495755	6.50
Aroclor-1016 {5}	5.03	4.96	5.10	412863	376969	8.69
Aroclor-1260	7.35	6.45	8.25	469508	488175	3.98
Aroclor-1260 {2}	7.60	6.70	8.50	703758	627271	10.87
Aroclor-1260 {3}	9.18	8.28	10.08	585394	538429	8.02
Aroclor-1260 {4}	9.69	8.79	10.59	1249191	1174669	5.97
Aroclor-1260 {5}	10.27	9.38	11.18	880259	821364	6.69

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.75 **DCB 1** 12.09 **TCMX 2** 2.57 **DCB 2** 11.95

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKA130923-16	09/24/2013	16:40	2.75		12.09		2.57		11.95	
FB091713	09228-008	09/24/2013	16:58	2.75		12.09		2.57		11.95	
EX._WELL	09198-007	09/24/2013	17:15	2.75		12.09		2.57		11.95	
PCB	09198-007MS	09/24/2013	17:33	2.75		12.09		2.57		11.95	
PCB	09198-007MSD	09/24/2013	17:50	2.75		12.09		2.57		11.94	
PCB	LCSA130923-16	09/24/2013	18:08	2.75		12.09		2.57		11.95	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.75 **DCB 1** 12.09 **TCMX 2** 2.57 **DCB 2** 11.95

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS130923-09	09/23/2013	14:50	2.75		12.09		2.57		11.95	
PCB	LCSS130923-09	09/23/2013	15:07	2.75		12.09		2.57		11.95	
SR-10-SW-6	09308-001	09/23/2013	15:24	2.75		12.09		2.57		11.94	
SR-10-B-5	09308-002	09/23/2013	15:42	2.75		12.09		2.57		11.95	
SR-10-B-7	09308-003	09/23/2013	15:59	2.75		12.09		2.57		11.95	
SR-10-B-8	09308-004	09/23/2013	16:17	2.75		12.09		2.57		11.95	
SR-10-B-4	09308-005	09/23/2013	16:34	2.75		12.09		2.57		11.94	
SR-10-B-3	09308-006	09/23/2013	16:52	2.75		12.09		2.57		11.94	
C-1	09190-001	09/23/2013	18:19	2.75		12.08		2.57		11.94	
C-2	09190-002	09/23/2013	18:37	2.75		12.08		2.57		11.94	
C-3	09190-003	09/23/2013	18:54	2.75		12.09		2.57		11.94	
BG-1A	09192-001	09/23/2013	19:29	2.75		12.09		2.57		11.94	
BG-1B	09192-002	09/23/2013	19:46	2.75		12.09		2.57		11.94	
BG-2	09192-003	09/23/2013	20:04	2.75		12.09		2.57		11.94	
AOC-9-1/0-	09198-001	09/23/2013	20:21	2.75		12.09		2.58		11.94	
AOC-9-2/0-	09198-002	09/23/2013	20:38	2.75		12.09		2.57		11.94	
AOC-12-3/1	09198-003	09/23/2013	20:56	2.75		12.09		2.57		11.94	
SW-1	09252-001	09/23/2013	21:13	2.75		12.09		2.58		11.94	
SW-2	09252-002	09/23/2013	21:31	2.75		12.09		2.58		11.94	
SW-3	09252-003	09/23/2013	21:48	2.75		12.09		2.58		11.94	
SW-4	09252-004	09/23/2013	22:05	2.75		12.09		2.58		11.94	
B-5	09252-005	09/23/2013	22:23	2.75		12.09		2.58		11.94	
PCB	09252-002MS	09/23/2013	22:40	2.75		12.09		2.58		11.95	
PCB	09252-002MSD	09/23/2013	22:58	2.75		12.09		2.58		11.94	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : R4339.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 20:21
Operator : JS
Sample : AOC-9-1/0-,09198-001,S,5.12g,18.2,09/23/13,4
Misc : 130923-09,09/18/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 10:16:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.58	2380.1E6	4284.3E6	169.625	213.697 #
Spiked Amount 200.000			Recovery =		84.81%	106.85%
2) S DCB	12.09	11.94	906.0E6	1302.1E6	262.643	278.825m
Spiked Amount 200.000			Recovery =		131.32%	139.41%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

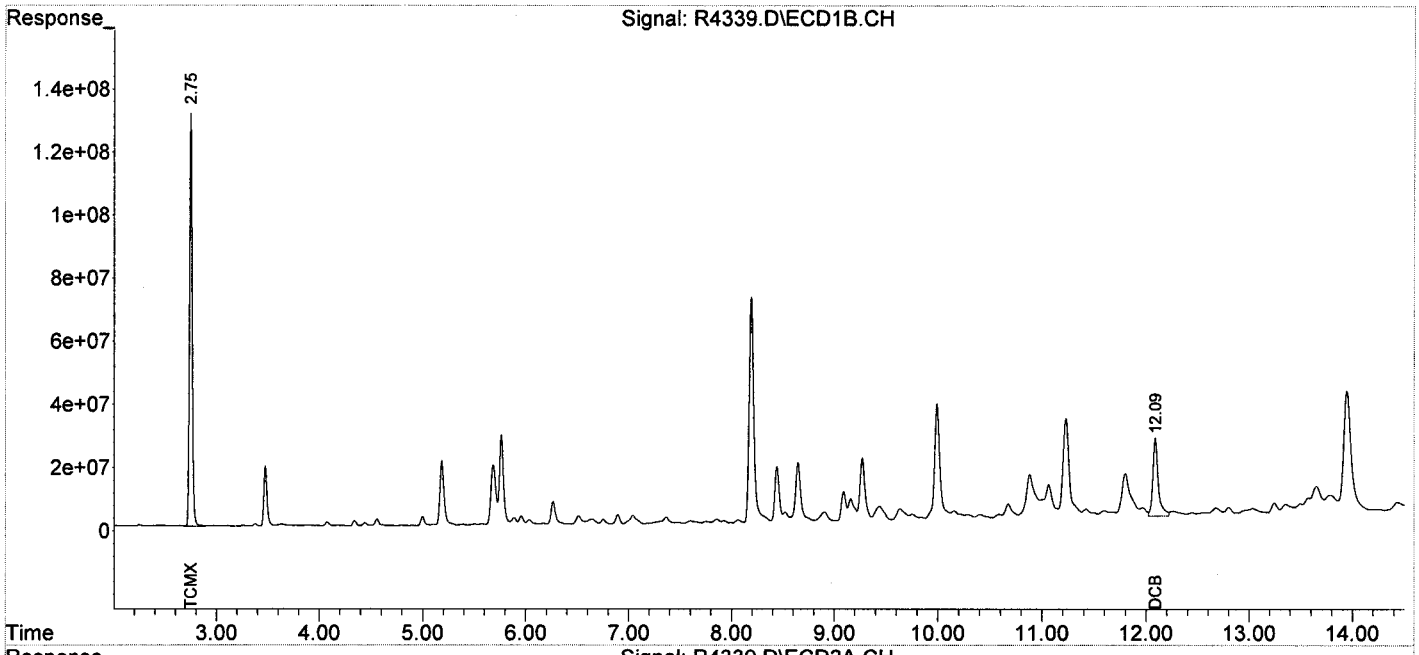
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

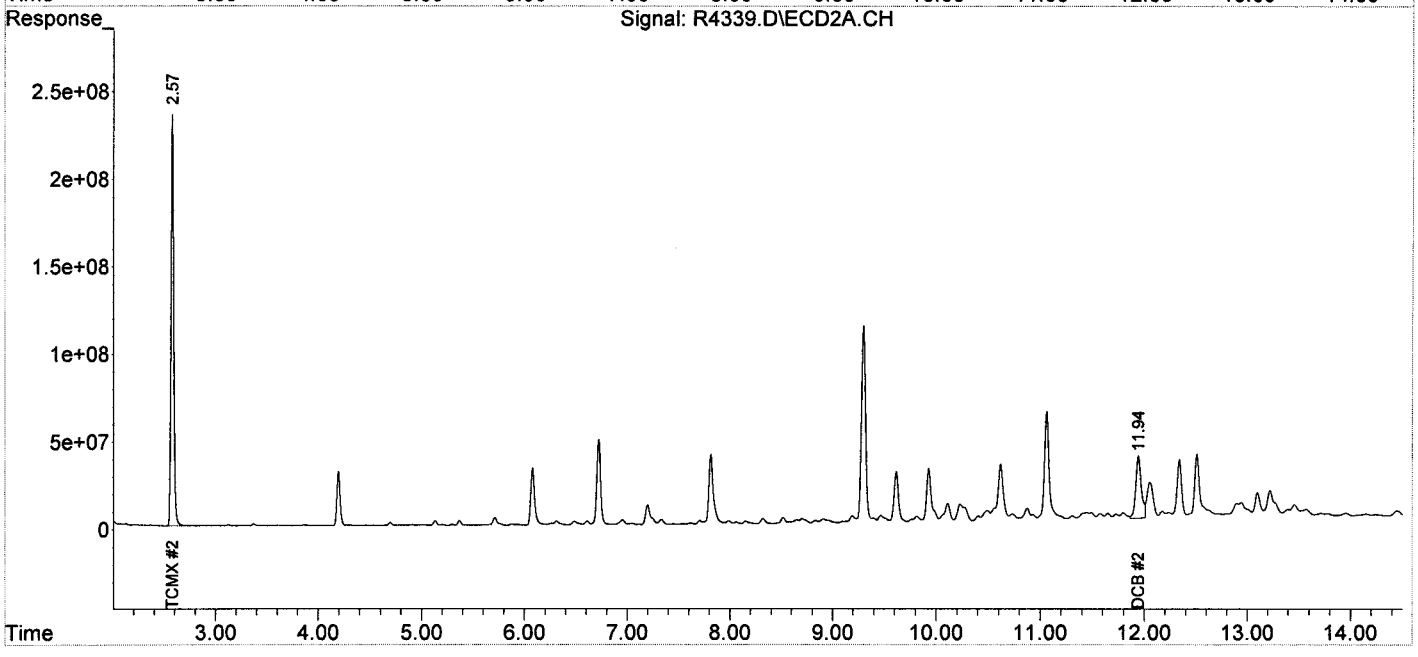
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : R4339.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 20:21
Operator : JS
Sample : AOC-9-1/0-,09198-001,S,5.12g,18.2,09/23/13,4
Misc : 130923-09,09/18/13,09/18/13,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 10:16:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : R4340.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 20:38
Operator : JS
Sample : AOC-9-2/0-,09198-002,S,5.22g,8.10,09/23/13,4
Misc : 130923-09,09/18/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 10:17:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.57	2433.3E6	4207.4E6	173.420	209.862
Spiked Amount 200.000			Recovery =		86.71%	104.93%
2) S DCB	12.09	11.94	741.4E6	1052.0E6	214.915	225.275m
Spiked Amount 200.000			Recovery =		107.46%	112.64%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

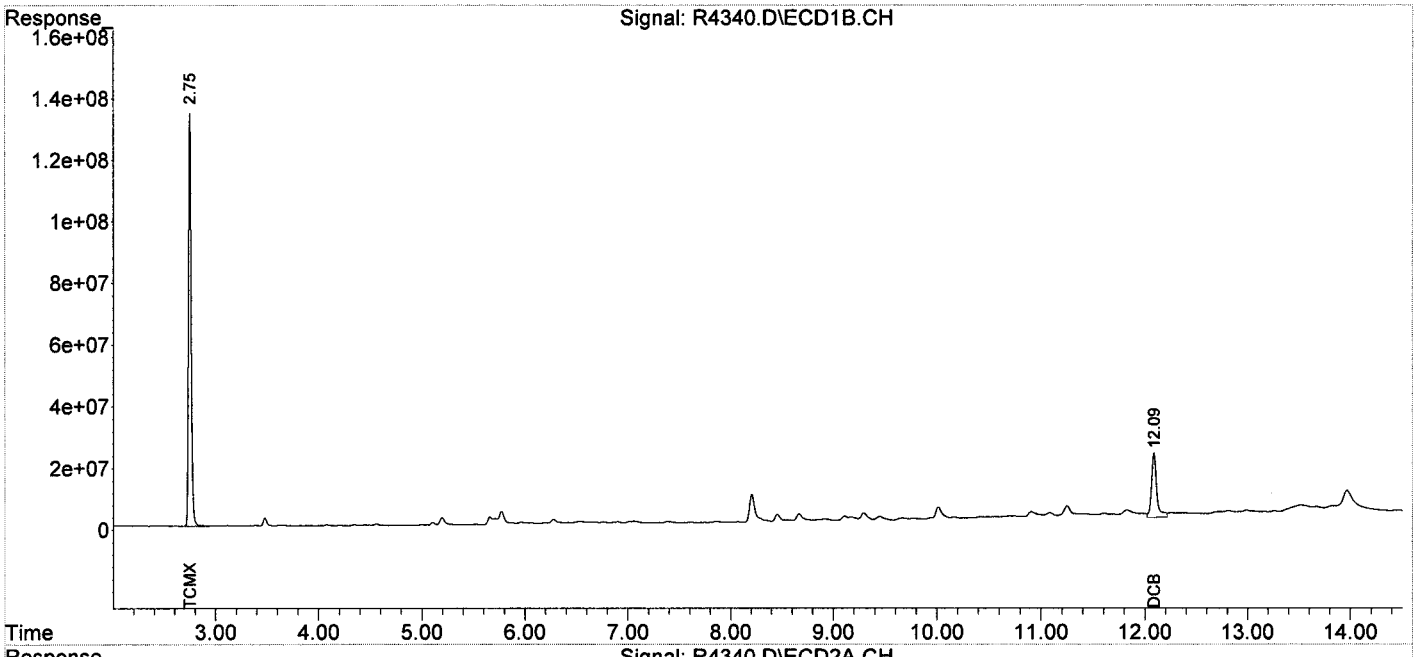
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

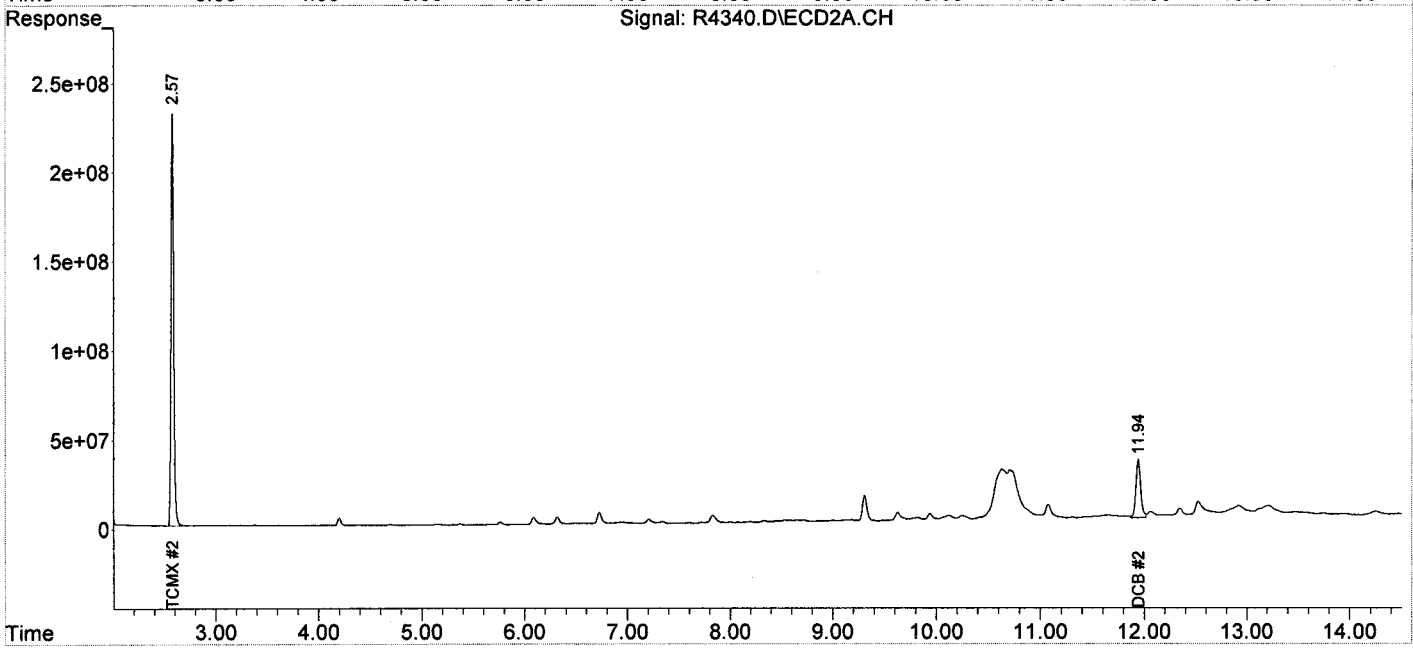
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : R4340.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 20:38
Operator : JS
Sample : AOC-9-2/0-,09198-002,S,5.22g,8.10,09/23/13,4
Misc : 130923-09,09/18/13,09/18/13,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 10:17:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : R4341.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 20:56
Operator : JS
Sample : AOC-12-3/1,09198-003,S,5.44g,19.9,09/23/13,4
Misc : 130923-09,09/18/13,09/18/13,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 10:18:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.57	2728.1E6	4690.1E6	194.433	233.939
Spiked Amount 200.000			Recovery	=	97.22%	116.97%
2) S DCB	12.09	11.94	927.7E6	1151.1E6	268.935	246.506
Spiked Amount 200.000			Recovery	=	134.47%	123.25%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

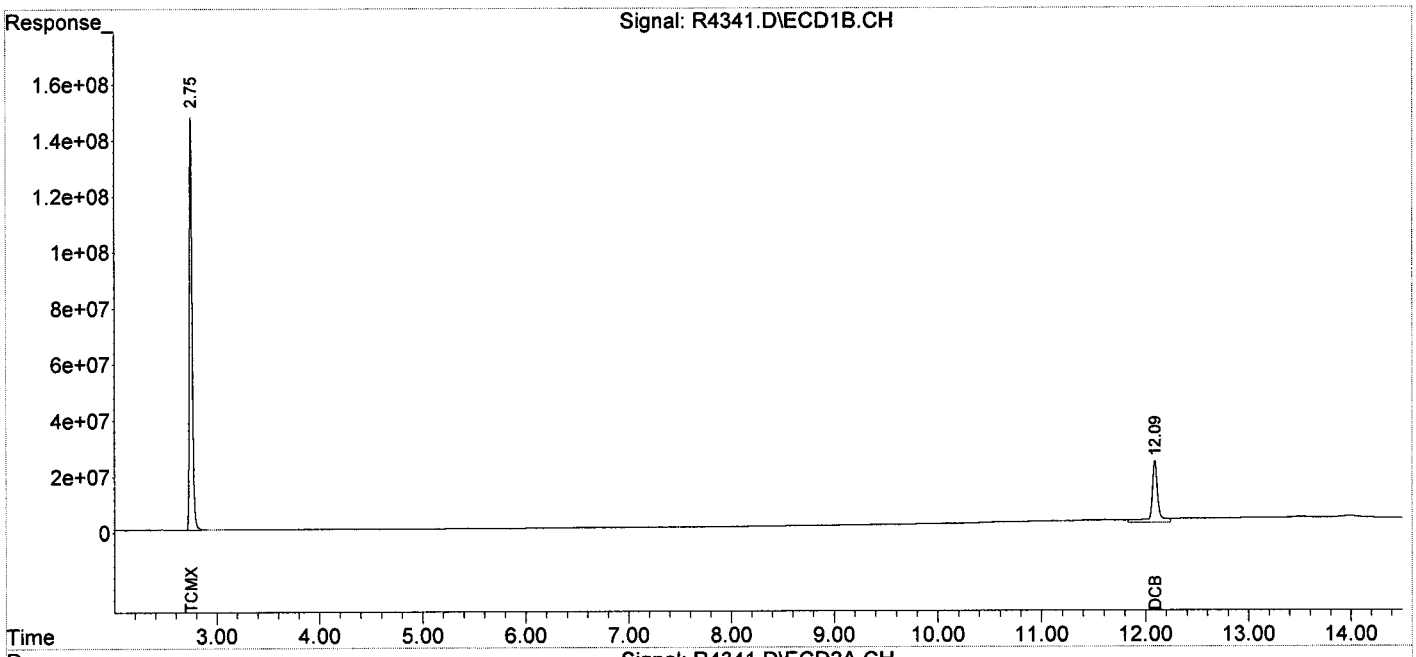
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

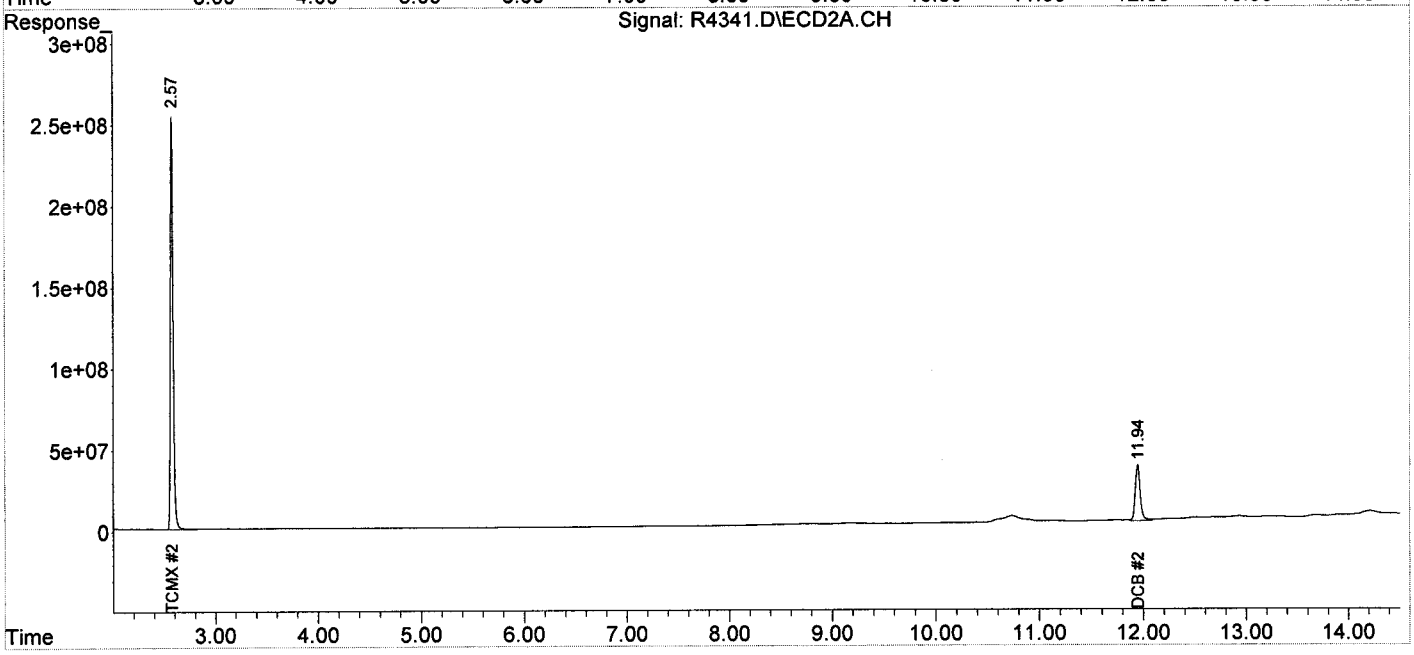
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : R4341.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 20:56
Operator : JS
Sample : AOC-12-3/1,09198-003,S,5.44g,19.9,09/23/13,4
Misc : 130923-09,09/18/13,09/18/13,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 10:18:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : R4387.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 17:15
Operator : JS
Sample : EX._WELL,09198-007,A,1000ml,100,09/23/13,1
Misc : 130923-16,09/18/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:48:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.57	1846.3E6	3267.9E6	131.588	163.001
Spiked Amount 200.000			Recovery	=	65.79%	81.50%
2) S DCB	12.09	11.95	629.3E6	918.9E6	182.416	196.766
Spiked Amount 200.000			Recovery	=	91.21%	98.38%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

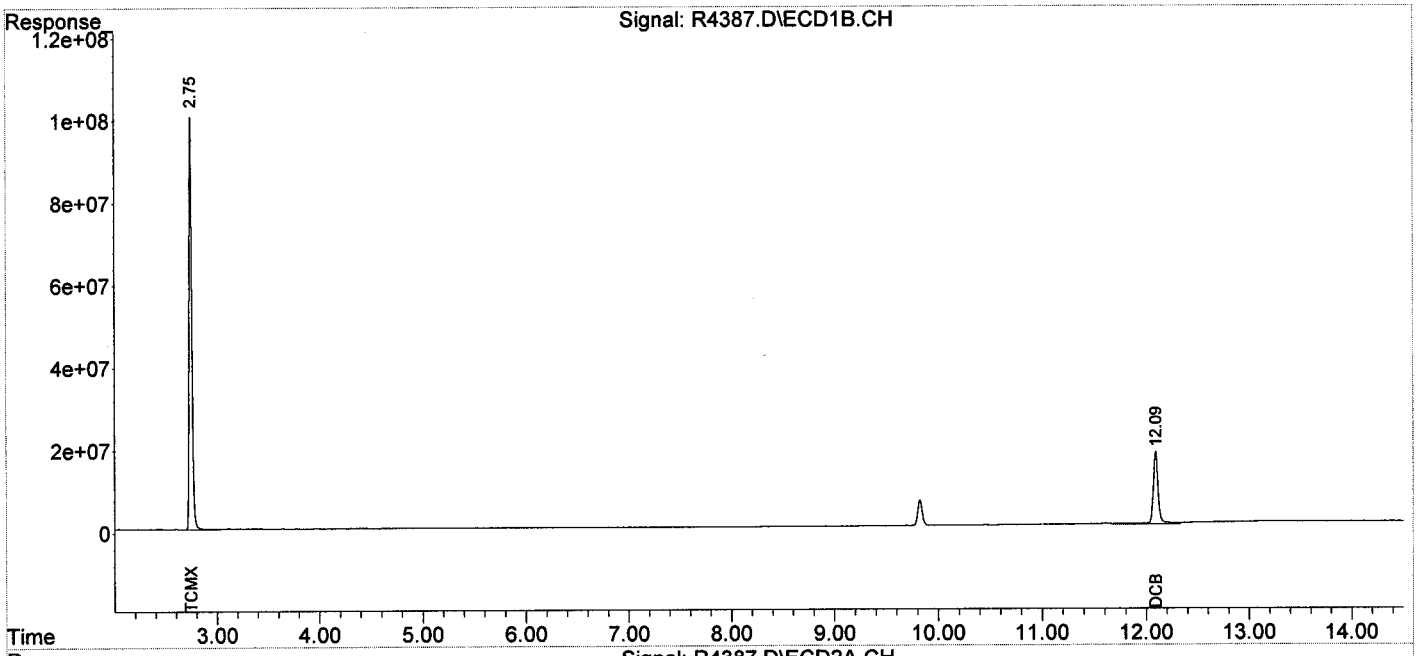
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

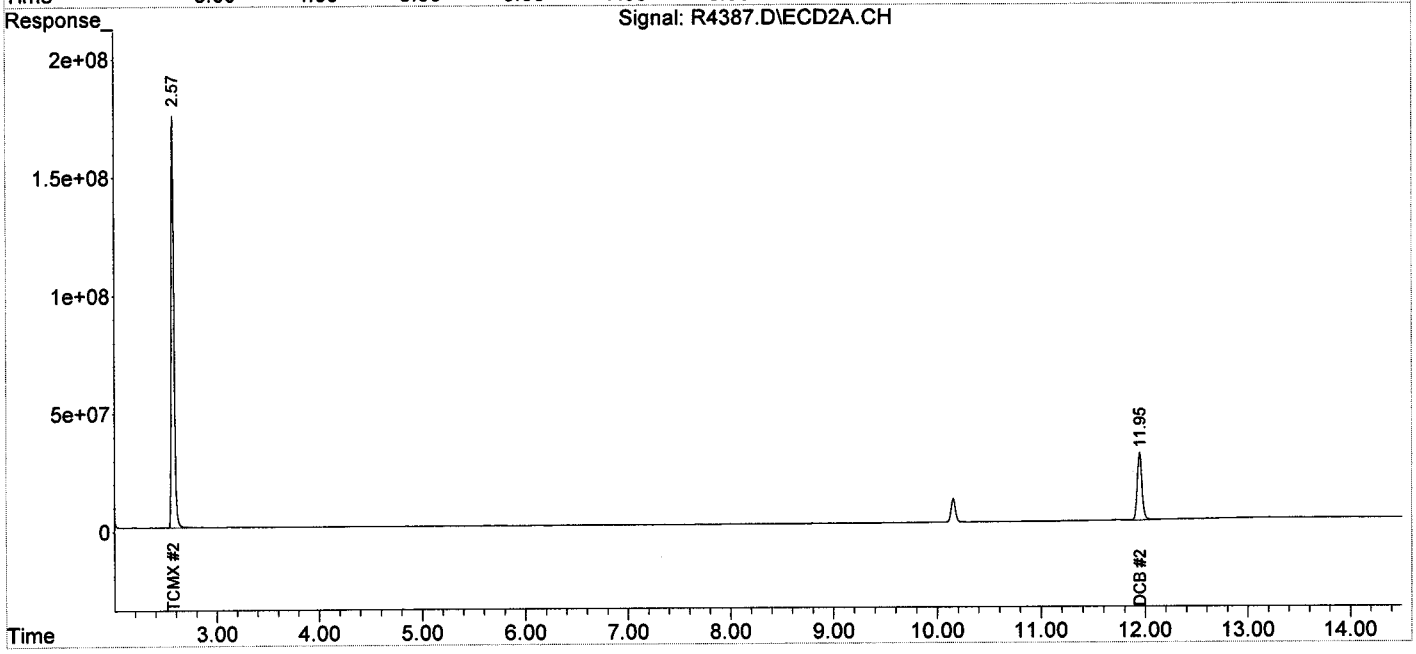
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-24-13\
Data File : R4387.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 17:15
Operator : JS
Sample : EX._WELL,09198-007,A,1000ml,100,09/23/13,1
Misc : 130923-16,09/18/13,09/18/13,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:48:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKA130923-16
Client ID: PCB
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: R4385.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4385.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:40
Operator : JS
Sample : PCB,BLKA130923-16,A,1000ml,100,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:43:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.57	2214.1E6	3946.5E6	157.797	196.852
Spiked Amount 200.000			Recovery	=	78.90%	98.43%
2) S DCB	12.09	11.95	679.2E6	1005.7E6	196.886	215.357
Spiked Amount 200.000			Recovery	=	98.44%	107.68%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

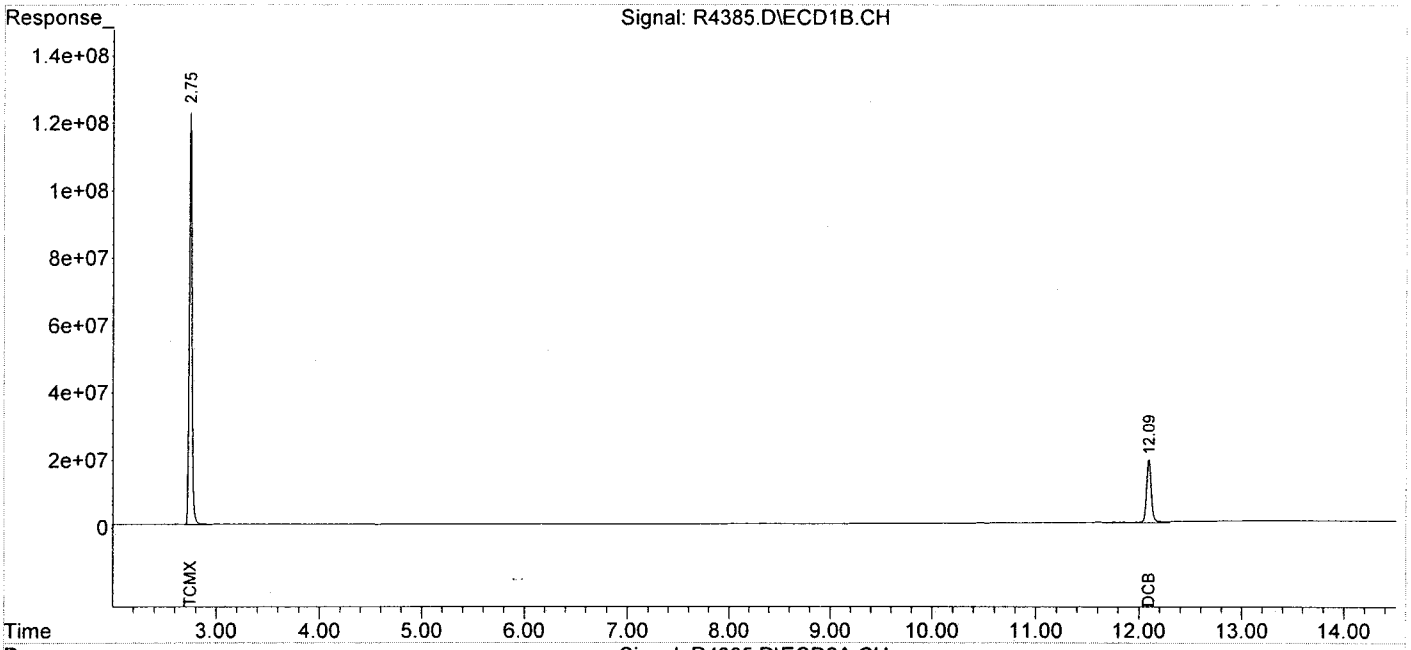
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

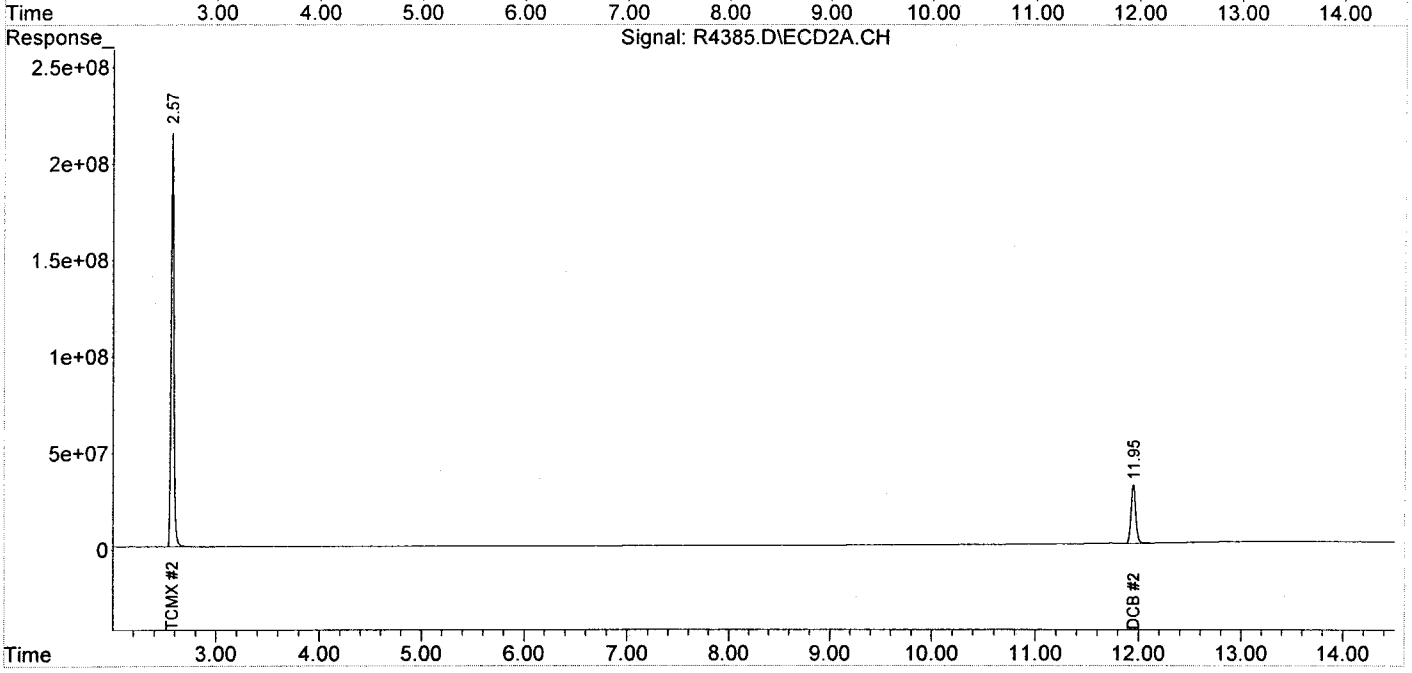
E13-09198 0285

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : R4385.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 16:40
Operator : JS
Sample : PCB,BLKA130923-16,A,1000ml,100,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:43:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS130923-09
Client ID: PCB
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/23/2013
Data file: R4324.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : R4324.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 14:50
Operator : JS
Sample : PCB,BLKS130923-09,S,5.00g,0,09/23/13,4
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 23 15:07:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.75	2.57	2527.3E6	4388.8E6	180.118	218.912
Spiked Amount 200.000			Recovery	=	90.06%	109.46%
2) S DCB	12.09	11.95	772.6E6	1301.8E6	223.981	278.759
Spiked Amount 200.000			Recovery	=	111.99%	139.38%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

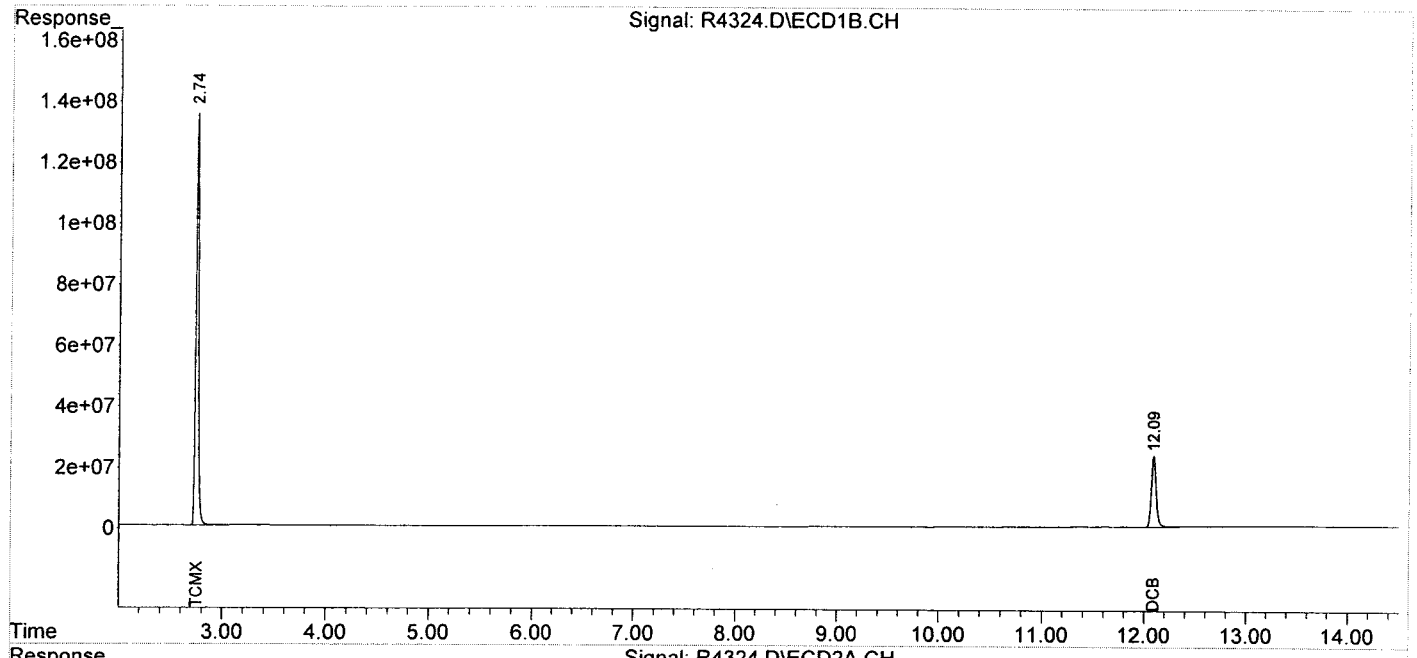
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

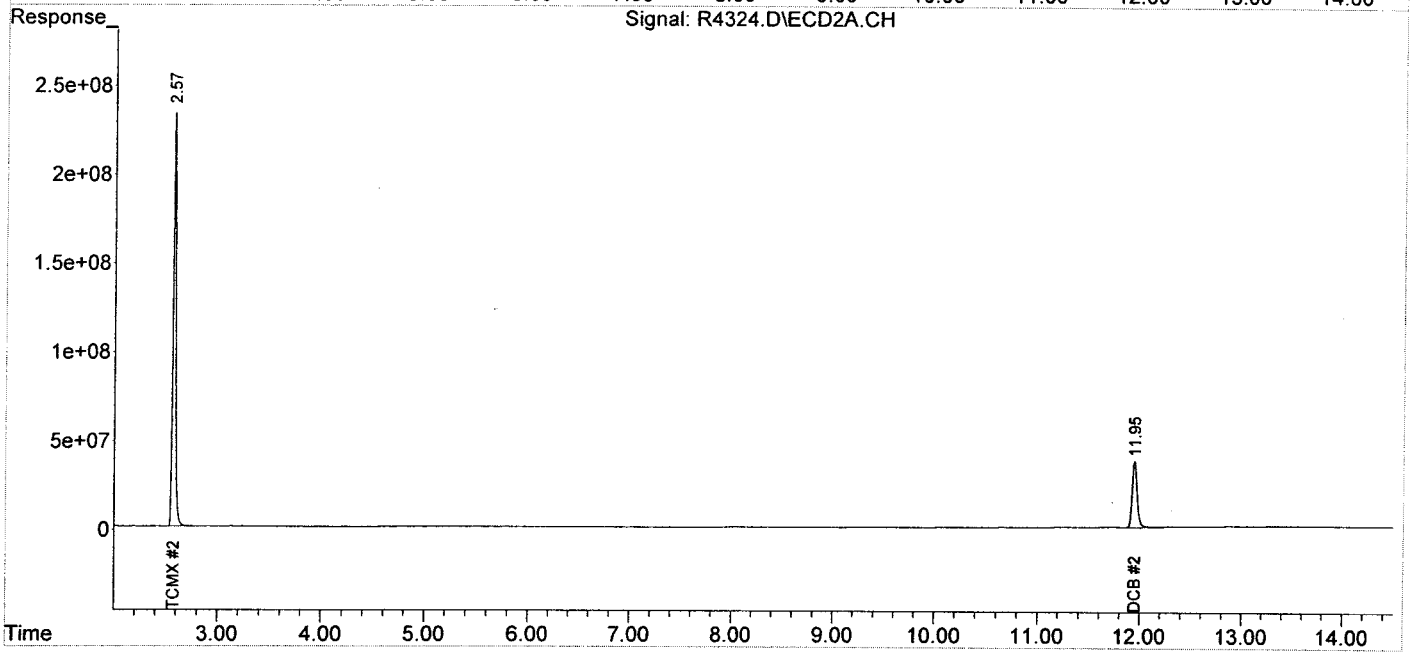
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : R4324.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 23 Sep 2013 14:50
Operator : JS
Sample : PCB,BLKS130923-09,S,5.00g,0,09/23/13,4
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 23 15:07:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\RPCB0830.M
Quant Title :
QLast Update : Mon Sep 23 13:00:17 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





E13-09198 0289

PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/20/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKA130919-07	AQUEOUS	68		75		66		71	
TW-1	09073-001	AQUEOUS	70		84		71		85	
Pest	09073-001MS	AQUEOUS	61		73		62		77	
Pest	09073-001MSD	AQUEOUS	62		77		54		77	
Pest	LCSA130919-07	AQUEOUS	71		80		67		90	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/25/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKA130923-16	AQUEOUS	87		92		85		93	
AOC-7-2	09198-005	AQUEOUS	55		95		49		84	
AOC-7-4	09198-006	AQUEOUS	75		77		65		112	
EX._WELL	09198-007	AQUEOUS	62		84		56		87	
Pest	LCSA130923-16	AQUEOUS	70		84		64		91	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS130923-11	SOIL	66		79		69		79	
C1/S1	09290-001	SOIL	51		64		51		80	
C2/S2	09290-002	SOIL	51		68		51		81	
PI-6N1/0-0	09339-001	SOIL	56		81		54		83	
PI-6E1/0-0	09339-003	SOIL	52		77		52		76	
PI-6W1/0-0	09339-005	SOIL	50		68		49		85	
PI-6S1/0-0	09339-007	SOIL	57		79		58		88	
PI-6D1/1-1	09339-009	SOIL	48		65		47		84	
C-1_WAREHO	09196-001	SOLID	36		82		43		101	
C-2_LOAD_D	09196-002	SOLID	33		90		30		90	
C-3_BLD_2	09196-003	SOLID	32		93		39		143	
C-4_IMP._M	09196-004	SOLID	38		140		40		1090	M
C-5_SPHINX	09196-005	SOLID	41		146		35		215	M
PI-6S1/0-0	09339-007DL	SOIL	55		73		56		70	
C-1_WAREHO	09196-001DL	SOLID	43		59		44		93	
C-2_LOAD_D	09196-002DL	SOLID	33		84		32		139	
C-3_BLD_2	09196-003DL	SOLID	36		126		40		123	
C-5_SPHINX	09196-005DL	SOLID	42		83		37		441	M
AOC-7-2/11	09197-004	SOIL	40		1637	M	32		137	
AOC-7-3/9.	09197-005	SOIL	39		80		35		89	
AOC-8/12.5	09197-007	SOIL	41		51		33		63	
AOC-12-2/3	09197-009	SOIL	36		42		30		57	
AOC-6/18.5	09197-010	SOIL	51		59		47		77	
AOC-12-3/1	09198-003	SOIL	57		86		54		73	
VTS_D1	08883-001	SOIL	53		54		54		72	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/24/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	09198-003MS	SOIL	54		67		53		81	
Pest	09198-003MSD	SOIL	59		72		60		83	
Pest	LCSS130923-11	SOIL	80		89		79		89	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	30-150	30-150
DCB = Decachlorobiphenyl	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA130923-16
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: V4661.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	60.67	61
beta-BHC	100.0	0.00	58.66	59
gamma-BHC (Lindane)	100.0	0.00	62.01	62
delta-BHC	100.0	0.00	61.97	62
Heptachlor	100.0	0.00	60.45	60
Aldrin	100.0	0.00	60.53	61
Heptachlor epoxide	100.0	0.00	59.83	60
Endosulfan I	100.0	0.00	60.87	61
4,4'-DDE	100.0	0.00	61.36	61
Dieldrin	100.0	0.00	51.61	52
Endrin	100.0	0.00	62.71	63
Endosulfan II	100.0	0.00	55.80	56
4,4'-DDD	100.0	0.00	60.34	60
Endrin aldehyde	100.0	0.00	51.21	51
Endosulfan sulfate	100.0	0.00	55.91	56
4,4'-DDT	100.0	0.00	50.47	50
Endrin ketone	100.0	0.00	58.59	59
Methoxychlor	100.0	0.00	59.95	60
alpha-Chlordane	100.0	0.00	59.89	60
gamma-Chlordane	100.0	0.00	60.35	60

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	30-140	30-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130923-11
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4650.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	80.16	80
beta-BHC	100.0	0.00	77.60	78
gamma-BHC (Lindane)	100.0	0.00	82.00	82
delta-BHC	100.0	0.00	81.99	82
Heptachlor	100.0	0.00	78.79	79
Aldrin	100.0	0.00	79.55	80
Heptachlor epoxide	100.0	0.00	78.33	78
Endosulfan I	100.0	0.00	80.67	81
4,4'-DDE	100.0	0.00	81.17	81
Dieldrin	100.0	0.00	70.04	70
Endrin	100.0	0.00	85.01	85
Endosulfan II	100.0	0.00	75.64	76
4,4'-DDD	100.0	0.00	81.84	82
Endrin aldehyde	100.0	0.00	69.95	70
Endosulfan sulfate	100.0	0.00	71.43	71
4,4'-DDT	100.0	0.00	62.18	62
Endrin ketone	100.0	0.00	73.23	73
Methoxychlor	100.0	0.00	67.49	67
alpha-Chlordane	100.0	0.00	78.90	79
gamma-Chlordane	100.0	0.00	79.30	79

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	30-140	30-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09073-001
Date Received: 09/13/2013
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
MS Data file: V4579.D
MSD Data file: V4580.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	70.36	70		71.32	71	1
beta-BHC	100.00	0.00	76.07	76		83.19	83	9
gamma-BHC (Lindane)	100.00	0.00	69.34	69		67.19	67	3
delta-BHC	100.00	0.00	70.38	70		72.08	72	2
Heptachlor	100.00	0.00	74.98	75		75.68	76	1
Aldrin	100.00	0.00	69.39	69		69.30	69	0
Heptachlor epoxide	100.00	0.00	73.80	74		74.01	74	0
Endosulfan I	100.00	0.00	80.03	80		80.34	80	0
4,4'-DDE	100.00	0.00	76.24	76		77.00	77	1
Dieldrin	100.00	0.00	67.62	68		67.85	68	0
Endrin	100.00	0.00	84.78	85		85.54	86	1
Endosulfan II	100.00	0.00	80.33	80		81.45	81	1
4,4'-DDD	100.00	0.00	76.10	76		77.14	77	1
Endrin aldehyde	100.00	0.00	77.20	77		78.73	79	2
Endosulfan sulfate	100.00	0.00	77.96	78		81.04	81	4
4,4'-DDT	100.00	0.00	90.33	90		93.89	94	4
Endrin ketone	100.00	0.00	80.66	81		83.12	83	3
Methoxychlor	100.00	0.00	96.37	96		101.42	101	5
alpha-Chlordane	100.00	0.00	75.77	76		75.95	76	0
gamma-Chlordane	100.00	0.00	76.69	77		77.16	77	1

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09198-003
Date Received: 09/18/2013
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
MS Data file: V4648.D
MSD Data file: V4649.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.22g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	55.80	56		59.54	60	6
beta-BHC	100.00	0.00	58.89	59		64.37	64	9
gamma-BHC (Lindane)	100.00	0.00	57.65	58		61.27	61	6
delta-BHC	100.00	0.00	60.76	61		64.68	65	6
Heptachlor	100.00	0.00	52.07	52		55.80	56	7
Aldrin	100.00	0.00	55.85	56		59.74	60	7
Heptachlor epoxide	100.00	0.00	56.72	57		61.08	61	7
Endosulfan I	100.00	0.00	57.33	57		63.12	63	10
4,4'-DDE	100.00	0.00	59.22	59		63.82	64	7
Dieldrin	100.00	0.00	50.76	51		54.90	55	8
Endrin	100.00	0.00	61.99	62		66.19	66	7
Endosulfan II	100.00	0.00	56.29	56		59.33	59	5
4,4'-DDD	100.00	0.00	65.44	65		69.94	70	7
Endrin aldehyde	100.00	0.00	41.47	41		40.91	41	1
Endosulfan sulfate	100.00	0.00	55.48	55		57.19	57	3
4,4'-DDT	100.00	0.00	33.66	34		37.73	38	11
Endrin ketone	100.00	0.00	53.12	53		58.86	59	10
Methoxychlor	100.00	0.00	45.79	46		46.31	46	1
alpha-Chlordane	100.00	0.00	56.38	56		61.73	62	9
gamma-Chlordane	100.00	0.00	56.60	57		61.05	61	8

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V4576.D	Instrument ID:	GC-V
Date Extracted:	09/19/2013	Matrix:	AQUEOUS
Date Analyzed:	09/20/2013	Time Analyzed:	12:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TW-1	09073-001	09/20/2013	12:51
Pest	09073-001MS	09/20/2013	13:03
Pest	09073-001MSD	09/20/2013	13:15
Pest	LCSA130919-07	09/20/2013	13:52

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V4657.D	Instrument ID:	GC-V
Date Extracted:	09/23/2013	Matrix:	AQUEOUS
Date Analyzed:	09/25/2013	Time Analyzed:	12:02

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
AOC-7-2	09198-005	09/25/2013	12:14
AOC-7-4	09198-006	09/25/2013	12:26
EX._WELL	09198-007	09/25/2013	12:38
Pest	LCSA130923-16	09/25/2013	12:50

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V4621.D

Instrument ID: GC-V

Date Extracted: 09/23/2013

Matrix: SOIL

Date Analyzed: 09/24/2013

Time Analyzed: 11:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
C1/S1	09290-001	09/24/2013	12:01
C2/S2	09290-002	09/24/2013	12:13
PI-6N1/0-0	09339-001	09/24/2013	12:25
PI-6E1/0-0	09339-003	09/24/2013	12:37
PI-6W1/0-0	09339-005	09/24/2013	12:49
PI-6S1/0-0	09339-007	09/24/2013	13:01
PI-6D1/1-1	09339-009	09/24/2013	13:13
C-1_WAREHO	09196-001	09/24/2013	13:25
C-2_LOAD_D	09196-002	09/24/2013	13:37
C-3_BLD_2	09196-003	09/24/2013	13:49
C-4_IMP._M	09196-004	09/24/2013	14:01
C-5_SPHINX	09196-005	09/24/2013	14:13
PI-6S1/0-0	09339-007DL	09/24/2013	15:04
C-1_WAREHO	09196-001DL	09/24/2013	15:16
C-2_LOAD_D	09196-002DL	09/24/2013	15:28
C-3_BLD_2	09196-003DL	09/24/2013	15:41
C-5_SPHINX	09196-005DL	09/24/2013	15:53
AOC-7-2/11	09197-004	09/24/2013	16:05
AOC-7-3/9.	09197-005	09/24/2013	16:29
AOC-8/12.5	09197-007	09/24/2013	16:41
AOC-12-2/3	09197-009	09/24/2013	16:53
AOC-6/18.5	09197-010	09/24/2013	17:05
AOC-12-3/1	09198-003	09/24/2013	17:17
VTS_D1	08883-001	09/24/2013	17:29
Pest	09198-003MS	09/24/2013	

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V4621.D	Instrument ID:	GC-V
Date Extracted:	09/23/2013	Matrix:	SOIL
Date Analyzed:	09/24/2013	Time Analyzed:	11:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Pest	09198-003MSD	09/24/2013	17:53
Pest	LCSS130923-11	09/24/2013	18:05

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4301.D V4300.D V4299.D V4298.D V4297.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.37	2.37	2.37	2.37	2.37	2.37	2.31	2.43
beta-BHC	2.69	2.69	2.69	2.69	2.69	2.69	2.63	2.75
gamma-BHC	2.62	2.62	2.62	2.62	2.62	2.62	2.56	2.68
delta-BHC	2.85	2.85	2.85	2.85	2.85	2.85	2.79	2.91
Heptachlor	3.04	3.04	3.04	3.04	3.04	3.04	2.96	3.12
Aldrin	3.33	3.33	3.33	3.33	3.34	3.33	3.25	3.41
Heptachlor epoxide	3.98	3.98	3.98	3.98	3.98	3.98	3.90	4.06
Endosulfan I	4.44	4.44	4.44	4.44	4.44	4.44	4.36	4.52
4,4'-DDE	4.39	4.39	4.39	4.39	4.39	4.39	4.29	4.49
Dieldrin	4.74	4.74	4.74	4.74	4.74	4.74	4.64	4.84
Endrin	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Endosulfan II	5.32	5.32	5.32	5.32	5.32	5.32	5.22	5.42
4,4'-DDD	5.15	5.15	5.15	5.15	5.15	5.15	5.05	5.25
Endrin aldehyde	5.90	5.90	5.90	5.90	5.90	5.90	5.78	6.02
Endosulfan sulfate	6.52	6.52	6.52	6.52	6.52	6.52	6.40	6.64
4,4'-DDT	5.53	5.53	5.53	5.53	5.53	5.53	5.41	5.65
Endrin ketone	6.88	6.88	6.88	6.88	6.88	6.88	6.76	7.00
Methoxychlor	6.25	6.25	6.25	6.25	6.25	6.25	6.13	6.37
alpha-Chlordane	4.28	4.28	4.28	4.28	4.28	4.28	4.20	4.36
gamma-Chlordane	4.12	4.12	4.12	4.12	4.12	4.12	4.04	4.20
Chlordane 500 ppb			2.97				2.89	3.05
Chlordane {2}			3.47				3.39	3.55
Chlordane {3}			4.12				4.04	4.20
Chlordane {4}			4.28				4.20	4.36
Chlordane {5}			5.23				5.15	5.31
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.41				5.33	5.49
Toxaphene {3}			5.87				5.79	5.95
Toxaphene {4}			6.37				6.29	6.45
Toxaphene {5}			6.86				6.78	6.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4301.D V4300.D V4299.D V4298.D V4297.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	329604	348098	357810	351980	352649	348028	3.12
beta-BHC	146627	125268	132818	146122	129418	136051	7.20
gamma-BHC	307816	311757	314901	296640	309441	308111	2.25
delta-BHC	318393	309561	320060	317827	315296	316227	1.30
Heptachlor	290074	308256	315955	314657	309363	307661	3.37
Aldrin	317036	306091	312773	309712	304821	310087	1.61
Heptachlor epoxide	289087	273006	276533	271535	265420	275116	3.19
Endosulfan I	286218	281324	287870	287711	275598	283744	1.86
4,4'-DDE	230768	230260	236431	228538	232111	231622	1.29
Dieldrin	284983	277957	286155	281033	276223	281270	1.53
Endrin	234289	237420	239317	239902	240237	238233	1.03
Endosulfan II	256341	237556	242205	236394	230685	240636	4.03
4,4'-DDD	220929	216536	221164	217427	212507	217713	1.64
Endrin aldehyde	210596	186930	191428	187180	180860	191399	5.94
Endosulfan sulfate	231689	210127	213404	208168	203265	213331	5.11
4,4'-DDT	139437	173498	190965	198661	201569	180826	14.15
Endrin ketone	262582	250607	255946	247393	238238	250953	3.64
Methoxychlor	71259	83687	89051	90362	90095	84891	9.53
alpha-Chlordane	281591	265486	271049	267799	264605	270106	2.55
gamma-Chlordane	285382	274229	280795	278401	275312	278824	1.61
Chlordane 500 ppb			7722				
Chlordane {2}			9070				
Chlordane {3}			27731				
Chlordane {4}			43545				
Chlordane {5}			7065				
Toxaphene 500 ppb			2965				
Toxaphene {2}			4808				
Toxaphene {3}			6381				
Toxaphene {4}			6863				
Toxaphene {5}			7741				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/23/2013

Instrument ID: GC-V

GC Column (2nd): RTX-CLP2

Data File: V4301.C V4300.C V4299.C V4298.C V4297.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.87	2.87	2.87	2.87	2.87	2.87	2.81	2.93
beta-BHC	3.30	3.30	3.30	3.30	3.30	3.30	3.24	3.36
gamma-BHC	3.23	3.23	3.23	3.23	3.23	3.23	3.17	3.29
delta-BHC	3.63	3.63	3.63	3.63	3.63	3.63	3.57	3.69
Heptachlor	3.72	3.72	3.72	3.72	3.73	3.72	3.64	3.80
Aldrin	4.11	4.11	4.11	4.11	4.11	4.11	4.03	4.19
Heptachlor epoxide	4.83	4.83	4.83	4.83	4.83	4.83	4.75	4.91
Endosulfan I	5.36	5.36	5.36	5.37	5.37	5.36	5.28	5.44
4,4'-DDE	5.54	5.54	5.54	5.54	5.54	5.54	5.44	5.64
Dieldrin	5.75	5.75	5.75	5.75	5.75	5.75	5.65	5.85
Endrin	6.18	6.18	6.18	6.19	6.19	6.18	6.08	6.28
Endosulfan II	6.50	6.50	6.50	6.50	6.50	6.50	6.40	6.60
4,4'-DDD	6.38	6.38	6.38	6.39	6.38	6.38	6.28	6.48
Endrin aldehyde	6.96	6.96	6.96	6.96	6.96	6.96	6.84	7.08
Endosulfan sulfate	7.27	7.27	7.27	7.27	7.27	7.27	7.15	7.39
4,4'-DDT	6.83	6.83	6.83	6.83	6.83	6.83	6.71	6.95
Endrin ketone	7.77	7.77	7.77	7.77	7.77	7.77	7.65	7.89
Methoxychlor	7.58	7.58	7.58	7.58	7.58	7.58	7.46	7.70
alpha-Chlordane	5.29	5.29	5.29	5.29	5.29	5.29	5.21	5.37
gamma-Chlordane	5.09	5.09	5.09	5.09	5.09	5.09	5.01	5.17
Chlordane 500 ppb			3.56				3.48	3.64
Chlordane {2}			4.29				4.21	4.37
Chlordane {3}			5.09				5.01	5.17
Chlordane {4}			5.22				5.14	5.30
Chlordane {5}			5.29				5.21	5.37
Toxaphene 500 ppb			6.63				6.55	6.71
Toxaphene {2}			6.97				6.89	7.05
Toxaphene {3}			7.22				7.14	7.30
Toxaphene {4}			7.51				7.43	7.59
Toxaphene {5}			7.87				7.79	7.95

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 08/23/2013 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V4301.C V4300.C V4299.C V4298.C V4297.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	1483502	1377015	1400700	1384137	1378283	1404727	3.21
beta-BHC	581626	495249	506341	501573	479540	512866	7.75
gamma-BHC	1305511	1224714	1234515	1203750	1204529	1234604	3.38
delta-BHC	1304044	1191162	1200157	1165731	1154069	1203033	4.94
Heptachlor	1140963	1183229	1204751	1183037	1145009	1171398	2.34
Aldrin	1298577	1196191	1192006	1158054	1128562	1194678	5.38
Heptachlor epoxide	1041917	1004407	1003288	965490	932411	989503	4.23
Endosulfan I	1011878	906678	920336	884036	856980	915982	6.41
4,4'-DDE	925035	929716	925301	886402	853234	903938	3.69
Dieldrin	978272	992387	973516	947566	923195	962987	2.86
Endrin	782214	804804	775789	761777	753576	775632	2.56
Endosulfan II	931074	850018	857310	806336	775554	844058	6.98
4,4'-DDD	798485	732933	727870	696085	672361	725547	6.57
Endrin aldehyde	598356	547891	552730	534274	515417	549734	5.60
Endosulfan sulfate	693543	557653	573147	562010	550132	587297	10.21
4,4'-DDT	416938	507433	547251	561677	570623	520784	12.08
Endrin ketone	566561	541964	556703	555499	545159	553177	1.78
Methoxychlor	164025	174145	190922	197804	217713	188922	11.07
alpha-Chlordane	1092112	941132	941765	919171	902784	959393	7.92
gamma-Chlordane	1126574	1000901	1018045	982986	967899	1019281	6.17
Chlordane 500 ppb			35554				
Chlordane {2}			38774				
Chlordane {3}			97496				
Chlordane {4}			80828				
Chlordane {5}			85186				
Toxaphene 500 ppb			16202				
Toxaphene {2}			16213				
Toxaphene {3}			12051				
Toxaphene {4}			13774				
Toxaphene {5}			10553				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4592.D V4591.D V4590.D V4589.D V4588.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.37	2.37	2.37	2.37	2.37	2.37	2.31	2.43
beta-BHC	2.69	2.69	2.69	2.69	2.69	2.69	2.63	2.75
gamma-BHC	2.62	2.62	2.62	2.62	2.62	2.62	2.56	2.68
delta-BHC	2.85	2.85	2.85	2.85	2.85	2.85	2.79	2.91
Heptachlor	3.04	3.04	3.04	3.04	3.04	3.04	2.96	3.12
Aldrin	3.33	3.33	3.33	3.33	3.33	3.33	3.25	3.41
Heptachlor epoxide	3.98	3.98	3.98	3.98	3.98	3.98	3.90	4.06
Endosulfan I	4.44	4.44	4.44	4.44	4.44	4.44	4.36	4.52
4,4'-DDE	4.39	4.39	4.38	4.39	4.39	4.39	4.29	4.49
Dieldrin	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Endrin	5.03	5.03	5.02	5.03	5.03	5.03	4.93	5.13
Endosulfan II	5.32	5.32	5.32	5.32	5.32	5.32	5.22	5.42
4,4'-DDD	5.15	5.15	5.15	5.15	5.15	5.15	5.05	5.25
Endrin aldehyde	5.90	5.90	5.90	5.90	5.90	5.90	5.78	6.02
Endosulfan sulfate	6.52	6.52	6.52	6.52	6.52	6.52	6.40	6.64
4,4'-DDT	5.52	5.52	5.52	5.52	5.52	5.52	5.40	5.64
Endrin ketone	6.88	6.88	6.88	6.88	6.88	6.88	6.76	7.00
Methoxychlor	6.24	6.24	6.24	6.24	6.24	6.24	6.12	6.36
alpha-Chlordane	4.28	4.28	4.28	4.28	4.28	4.28	4.20	4.36
gamma-Chlordane	4.12	4.12	4.12	4.12	4.12	4.12	4.04	4.20
Chlordane 500 ppb			2.97				2.89	3.05
Chlordane {2}			3.47				3.39	3.55
Chlordane {3}			4.12				4.04	4.20
Chlordane {4}			4.27				4.19	4.35
Chlordane {5}			5.23				5.15	5.31
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.40				5.32	5.48
Toxaphene {3}			5.87				5.79	5.95
Toxaphene {4}			6.37				6.29	6.45
Toxaphene {5}			6.86				6.78	6.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V4592.D V4591.D V4590.D V4589.D V4588.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	347678	346418	345062	395828	363569	359711	5.99
beta-BHC	141529	124410	123822	159328	142260	138270	10.67
gamma-BHC	285044	302071	304263	335651	309704	307347	5.96
delta-BHC	318353	309454	303846	358195	325485	323067	6.60
Heptachlor	297982	313491	304187	354147	322544	318470	6.91
Aldrin	305406	310556	302159	344489	315278	315577	5.36
Heptachlor epoxide	284978	277309	266362	301560	273471	280736	4.79
Endosulfan I	292081	297402	279594	323004	290955	296607	5.43
4,4'-DDE	211496	222455	222263	256010	234778	229400	7.41
Dieldrin	289855	276081	275409	310895	282157	286879	5.10
Endrin	238110	247891	242093	276437	252109	251328	5.98
Endosulfan II	263759	242034	230993	267999	240844	249126	6.40
4,4'-DDD	233637	221480	210325	244172	220459	226015	5.79
Endrin aldehyde	222224	185371	174905	203745	182337	193717	9.88
Endosulfan sulfate	225073	212795	199539	232044	208191	215528	6.05
4,4'-DDT	191416	166692	173290	226749	210029	193635	12.94
Endrin ketone	251375	255896	238821	276464	247214	253954	5.54
Methoxychlor	85157	85324	86222	108672	99532	92981	11.47
alpha-Chlordane	277114	270432	262029	299467	273510	276510	5.06
gamma-Chlordane	280577	279150	271656	310502	284095	285196	5.21
Chlordane 500 ppb			7578				
Chlordane {2}			9120				
Chlordane {3}			27556				
Chlordane {4}			43517				
Chlordane {5}			7002				
Toxaphene 500 ppb			2995				
Toxaphene {2}			4340				
Toxaphene {3}			5723				
Toxaphene {4}			6032				
Toxaphene {5}			5978				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013

Instrument ID: GC-V

GC Column (2nd): RTX-CLP2

Data File: V4592.C V4591.C V4590.C V4589.C V4588.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	2	50	100	200	300	RT	FROM	TO
alpha-BHC	2.86	2.86	2.86	2.86	2.86	2.86	2.80	2.92
beta-BHC	3.30	3.30	3.30	3.30	3.30	3.30	3.24	3.36
gamma-BHC	3.22	3.22	3.22	3.22	3.22	3.22	3.16	3.28
delta-BHC	3.62	3.63	3.63	3.62	3.62	3.62	3.56	3.68
Heptachlor	3.71	3.72	3.72	3.72	3.72	3.72	3.64	3.80
Aldrin	4.10	4.10	4.10	4.10	4.10	4.10	4.02	4.18
Heptachlor epoxide	4.82	4.82	4.82	4.82	4.82	4.82	4.74	4.90
Endosulfan I	5.35	5.35	5.35	5.35	5.35	5.35	5.27	5.43
4,4'-DDE	5.53	5.53	5.53	5.53	5.53	5.53	5.43	5.63
Dieldrin	5.74	5.74	5.74	5.74	5.74	5.74	5.64	5.84
Endrin	6.17	6.17	6.17	6.17	6.17	6.17	6.07	6.27
Endosulfan II	6.49	6.49	6.49	6.49	6.49	6.49	6.39	6.59
4,4'-DDD	6.37	6.37	6.37	6.37	6.37	6.37	6.27	6.47
Endrin aldehyde	6.95	6.95	6.95	6.95	6.95	6.95	6.83	7.07
Endosulfan sulfate	7.26	7.26	7.26	7.26	7.26	7.26	7.14	7.38
4,4'-DDT	6.82	6.82	6.82	6.82	6.82	6.82	6.70	6.94
Endrin ketone	7.77	7.77	7.77	7.77	7.77	7.77	7.65	7.89
Methoxychlor	7.57	7.58	7.58	7.58	7.58	7.58	7.46	7.70
alpha-Chlordane	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
gamma-Chlordane	5.08	5.08	5.08	5.08	5.08	5.08	5.00	5.16
Chlordane 500 ppb			3.55				3.47	3.63
Chlordane {2}			4.28				4.20	4.36
Chlordane {3}			5.08				5.00	5.16
Chlordane {4}			5.21				5.13	5.29
Chlordane {5}			5.28				5.20	5.36
Toxaphene 500 ppb			6.62				6.54	6.70
Toxaphene {2}			6.96				6.88	7.04
Toxaphene {3}			7.21				7.13	7.29
Toxaphene {4}			7.51				7.43	7.59
Toxaphene {5}			7.86				7.78	7.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/23/2013 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V4592.C V4591.C V4590.C V4589.C V4588.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	1425053	1377331	1324482	1520622	1382702	1406038	5.22
beta-BHC	533298	527060	471815	551228	496617	516004	6.12
gamma-BHC	1220996	1218448	1166622	1320555	1197782	1224881	4.71
delta-BHC	1287860	1195048	1121925	1286419	1152718	1208794	6.29
Heptachlor	1323562	1207499	1139489	1287823	1151217	1221918	6.68
Aldrin	1250670	1243746	1143886	1267028	1138531	1208772	5.15
Heptachlor epoxide	1046590	1070933	969823	1062743	946328	1019283	5.61
Endosulfan I	910703	899259	900872	988342	877592	915354	4.65
4,4'-DDE	959397	862726	898836	983804	873412	915635	5.84
Dieldrin	966279	944600	955000	1054598	937994	971694	4.90
Endrin	750688	758543	773042	852963	761971	779441	5.37
Endosulfan II	930367	788967	819609	899051	789517	845502	7.73
4,4'-DDD	747355	659041	681146	764449	675379	705474	6.68
Endrin aldehyde	603447	520611	502170	579290	513357	543775	8.23
Endosulfan sulfate	626034	584839	528648	622446	554915	583376	7.25
4,4'-DDT	499884	485099	490735	636830	579475	538404	12.45
Endrin ketone	547612	544727	517789	615325	554334	555958	6.47
Methoxychlor	200571	189994	172990	221527	218942	200805	10.11
alpha-Chlordane	968252	916193	908337	1017602	915078	945093	4.99
gamma-Chlordane	1063034	976008	982687	1096722	982639	1020218	5.47
Chlordane 500 ppb			33798				
Chlordane {2}			38358				
Chlordane {3}			103667				
Chlordane {4}			81930				
Chlordane {5}			87377				
Toxaphene 500 ppb			14633				
Toxaphene {2}			15901				
Toxaphene {3}			12662				
Toxaphene {4}			12244				
Toxaphene {5}			8968				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/20/2013 **Instrument ID:** GC-V

Data File: V4570.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.38	2.31	2.43	348028	351036	0.86
beta-BHC	2.70	2.63	2.75	136051	130577	4.02
gamma-BHC	2.63	2.56	2.68	308111	316687	2.78
delta-BHC	2.86	2.79	2.91	316227	325583	2.96
Heptachlor	3.05	2.96	3.12	307661	318811	3.62
Aldrin	3.34	3.25	3.41	310087	308475	0.52
Heptachlor epoxide	3.99	3.90	4.06	275116	274346	0.28
Endosulfan I	4.45	4.36	4.52	283744	287042	1.16
4,4'-DDE	4.40	4.29	4.49	231622	239993	3.61
Dieldrin	4.74	4.64	4.84	281270	251913	10.44
Endrin	5.04	4.93	5.13	238233	261521	9.78
Endosulfan II	5.33	5.22	5.42	240636	250652	4.16
4,4'-DDD	5.16	5.05	5.25	217713	221755	1.86
Endrin aldehyde	5.91	5.78	6.02	191399	192499	0.58
Endosulfan sulfate	6.53	6.40	6.64	213331	212255	0.50
4,4'-DDT	5.53	5.41	5.65	180826	196054	8.42
Endrin ketone	6.89	6.76	7.00	250953	251264	0.12
Methoxychlor	6.25	6.13	6.37	84891	95054	11.97
alpha-Chlordane	4.29	4.20	4.36	270106	272076	0.73
gamma-Chlordane	4.13	4.04	4.20	278824	281090	0.81
Chlordane 500 ppb	2.97	2.89	3.05	7722	8522	10.35
Chlordane {2}	3.47	3.39	3.55	9070	10002	10.28
Chlordane {3}	4.12	4.04	4.20	27731	30851	11.25
Chlordane {4}	4.27	4.20	4.36	43545	48619	11.65
Chlordane {5}	5.23	5.15	5.31	7065	7982	12.97
Toxaphene 500 ppb	5.07	4.99	5.15	2965	3317	11.86
Toxaphene {2}	5.41	5.33	5.49	4808	5212	8.40
Toxaphene {3}	5.87	5.79	5.95	6381	6987	9.50
Toxaphene {4}	6.37	6.29	6.45	6863	7268	5.90
Toxaphene {5}	6.85	6.78	6.94	7741	8185	5.73

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/20/2013 **Instrument ID:** GC-V

Data File: V4570.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.88	2.81	2.93	1404727	1410705	0.43
beta-BHC	3.31	3.24	3.36	512866	530123	3.36
gamma-BHC	3.24	3.17	3.29	1234604	1275094	3.28
delta-BHC	3.64	3.57	3.69	1203033	1242720	3.30
Heptachlor	3.73	3.64	3.80	1171398	1233819	5.33
Aldrin	4.12	4.03	4.19	1194678	1212474	1.49
Heptachlor epoxide	4.84	4.75	4.91	989503	999994	1.06
Endosulfan I	5.37	5.28	5.44	915982	930126	1.54
4,4'-DDE	5.55	5.44	5.64	903938	950950	5.20
Dieldrin	5.76	5.65	5.85	962987	877869	8.84
Endrin	6.19	6.08	6.28	775632	827936	6.74
Endosulfan II	6.51	6.40	6.60	844058	822077	2.60
4,4'-DDD	6.39	6.28	6.48	725547	689484	4.97
Endrin aldehyde	6.96	6.84	7.08	549734	537496	2.23
Endosulfan sulfate	7.28	7.15	7.39	587297	555061	5.49
4,4'-DDT	6.84	6.71	6.95	520784	517980	0.54
Endrin ketone	7.78	7.65	7.89	553177	545831	1.33
Methoxychlor	7.59	7.46	7.70	188922	198169	4.89
alpha-Chlordane	5.30	5.21	5.37	959393	919192	4.19
gamma-Chlordane	5.10	5.01	5.17	1019281	1001726	1.72
Chlordane 500 ppb	3.55	3.48	3.64	35554	36143	1.66
Chlordane {2}	4.28	4.21	4.37	38774	40642	4.82
Chlordane {3}	5.08	5.01	5.17	97496	104285	6.96
Chlordane {4}	5.21	5.14	5.30	80828	87522	8.28
Chlordane {5}	5.28	5.21	5.37	85186	93293	9.52
Toxaphene 500 ppb	6.62	6.55	6.71	16202	16307	0.65
Toxaphene {2}	6.97	6.89	7.05	16213	16655	2.72
Toxaphene {3}	7.22	7.14	7.30	12051	12057	0.05
Toxaphene {4}	7.51	7.43	7.59	13774	14479	5.12
Toxaphene {5}	7.86	7.79	7.95	10553	11129	5.45

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/20/2013 **Instrument ID:** GC-V

Data File: V4583.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	348028	365272	4.95
beta-BHC	2.69	2.63	2.75	136051	147753	8.60
gamma-BHC	2.62	2.56	2.68	308111	317045	2.90
delta-BHC	2.85	2.79	2.91	316227	336510	6.41
Heptachlor	3.04	2.96	3.12	307661	327954	6.60
Aldrin	3.33	3.25	3.41	310087	319635	3.08
Heptachlor epoxide	3.98	3.90	4.06	275116	285676	3.84
Endosulfan I	4.44	4.36	4.52	283744	312563	10.16
4,4'-DDE	4.38	4.29	4.49	231622	241262	4.16
Dieldrin	4.73	4.64	4.84	281270	262377	6.72
Endrin	5.02	4.93	5.13	238233	273277	14.71
Endosulfan II	5.32	5.22	5.42	240636	264149	9.77
4,4'-DDD	5.15	5.05	5.25	217713	236583	8.67
Endrin aldehyde	5.90	5.78	6.02	191399	203250	6.19
Endosulfan sulfate	6.52	6.40	6.64	213331	223721	4.87
4,4'-DDT	5.52	5.41	5.65	180826	198427	9.73
Endrin ketone	6.88	6.76	7.00	250953	263153	4.86
Methoxychlor	6.24	6.13	6.37	84891	93836	10.54
alpha-Chlordane	4.28	4.20	4.36	270106	281605	4.26
gamma-Chlordane	4.12	4.04	4.20	278824	291958	4.71

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/20/2013 **Instrument ID:** GC-V

Data File: V4583.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.81	2.93	1404727	1419822	1.07
beta-BHC	3.30	3.24	3.36	512866	518029	1.01
gamma-BHC	3.22	3.17	3.29	1234604	1269461	2.82
delta-BHC	3.62	3.57	3.69	1203033	1233286	2.51
Heptachlor	3.72	3.64	3.80	1171398	1249842	6.70
Aldrin	4.10	4.03	4.19	1194678	1211491	1.41
Heptachlor epoxide	4.82	4.75	4.91	989503	1031058	4.20
Endosulfan I	5.35	5.28	5.44	915982	973067	6.23
4,4'-DDE	5.53	5.44	5.64	903938	984596	8.92
Dieldrin	5.74	5.65	5.85	962987	916848	4.79
Endrin	6.17	6.08	6.28	775632	886036	14.23
Endosulfan II	6.49	6.40	6.60	844058	891519	5.62
4,4'-DDD	6.37	6.28	6.48	725547	760619	4.83
Endrin aldehyde	6.95	6.84	7.08	549734	578124	5.16
Endosulfan sulfate	7.26	7.15	7.39	587297	593806	1.11
4,4'-DDT	6.82	6.71	6.95	520784	555815	6.73
Endrin ketone	7.76	7.65	7.89	553177	583726	5.52
Methoxychlor	7.57	7.46	7.70	188922	210211	11.27
alpha-Chlordane	5.28	5.21	5.37	959393	966875	0.78
gamma-Chlordane	5.08	5.01	5.17	1019281	1051648	3.18

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4615.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	342107	4.89
beta-BHC	2.69	2.63	2.75	138270	145814	5.46
gamma-BHC	2.62	2.56	2.68	307347	293958	4.36
delta-BHC	2.85	2.79	2.91	323067	323865	0.25
Heptachlor	3.04	2.96	3.12	318470	294160	7.63
Aldrin	3.33	3.25	3.41	315577	302908	4.01
Heptachlor epoxide	3.98	3.90	4.06	280736	272451	2.95
Endosulfan I	4.44	4.36	4.52	296607	295053	0.52
4,4'-DDE	4.39	4.29	4.49	229400	230893	0.65
Dieldrin	4.74	4.63	4.83	286879	250654	12.63
Endrin	5.03	4.93	5.13	251328	244267	2.81
Endosulfan II	5.32	5.22	5.42	249126	248355	0.31
4,4'-DDD	5.15	5.05	5.25	226015	231626	2.48
Endrin aldehyde	5.90	5.78	6.02	193717	195790	1.07
Endosulfan sulfate	6.52	6.40	6.64	215528	216389	0.40
4,4'-DDT	5.53	5.40	5.64	193635	161574	16.56
Endrin ketone	6.88	6.76	7.00	253954	259542	2.20
Methoxychlor	6.25	6.12	6.36	92981	78123	15.98
alpha-Chlordane	4.28	4.20	4.36	276510	270184	2.29
gamma-Chlordane	4.12	4.04	4.20	285196	278432	2.37
Chlordane 500 ppb	2.97	2.89	3.05	7578	7923	4.56
Chlordane {2}	3.47	3.39	3.55	9120	9769	7.12
Chlordane {3}	4.12	4.04	4.20	27556	29447	6.86
Chlordane {4}	4.27	4.19	4.35	43517	46343	6.49
Chlordane {5}	5.23	5.15	5.31	7002	7066	0.91
Toxaphene 500 ppb	5.08	4.99	5.15	2995	3298	10.11
Toxaphene {2}	5.42	5.32	5.48	4340	3714	14.41
Toxaphene {3}	5.88	5.79	5.95	5723	5308	7.25
Toxaphene {4}	6.38	6.29	6.45	6032	5385	10.72
Toxaphene {5}	6.86	6.78	6.94	5978	5616	6.07

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4615.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1305950	7.12
beta-BHC	3.30	3.24	3.36	516004	478438	7.28
gamma-BHC	3.22	3.16	3.28	1224881	1174751	4.09
delta-BHC	3.63	3.56	3.68	1208794	1162779	3.81
Heptachlor	3.72	3.64	3.80	1221918	1088582	10.91
Aldrin	4.11	4.02	4.18	1208772	1118169	7.50
Heptachlor epoxide	4.83	4.74	4.90	1019283	945667	7.22
Endosulfan I	5.36	5.27	5.43	915354	880712	3.78
4,4'-DDE	5.53	5.43	5.63	915635	898778	1.84
Dieldrin	5.74	5.64	5.84	971694	832697	14.30
Endrin	6.18	6.07	6.27	779441	747885	4.05
Endosulfan II	6.49	6.39	6.59	845502	818550	3.19
4,4'-DDD	6.38	6.27	6.47	705474	714109	1.22
Endrin aldehyde	6.95	6.83	7.07	543775	540727	0.56
Endosulfan sulfate	7.27	7.14	7.38	583376	556645	4.58
4,4'-DDT	6.83	6.70	6.94	538404	431768	19.81
Endrin ketone	7.77	7.65	7.89	555958	552244	0.67
Methoxychlor	7.58	7.46	7.70	200805	196164	2.31
alpha-Chlordane	5.28	5.20	5.36	945093	901614	4.60
gamma-Chlordane	5.08	5.00	5.16	1020218	964626	5.45
Chlordane 500 ppb	3.55	3.47	3.63	33798	34759	2.84
Chlordane {2}	4.28	4.20	4.36	38358	37937	1.10
Chlordane {3}	5.08	5.00	5.16	103667	105079	1.36
Chlordane {4}	5.21	5.13	5.29	81930	82551	0.76
Chlordane {5}	5.28	5.20	5.36	87377	91344	4.54
Toxaphene 500 ppb	6.63	6.54	6.70	14633	12489	14.65
Toxaphene {2}	6.98	6.88	7.04	15901	13549	14.79
Toxaphene {3}	7.22	7.13	7.29	12662	10856	14.27
Toxaphene {4}	7.51	7.43	7.59	12244	10700	12.61
Toxaphene {5}	7.87	7.78	7.94	8968	7944	11.42

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4651.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	378224	5.15
beta-BHC	2.69	2.63	2.75	138270	152327	10.17
gamma-BHC	2.62	2.56	2.68	307347	329467	7.20
delta-BHC	2.85	2.79	2.91	323067	351433	8.78
Heptachlor	3.04	2.96	3.12	318470	315977	0.78
Aldrin	3.33	3.25	3.41	315577	334622	6.03
Heptachlor epoxide	3.98	3.90	4.06	280736	296596	5.65
Endosulfan I	4.44	4.36	4.52	296607	320711	8.13
4,4'-DDE	4.39	4.29	4.49	229400	247127	7.73
Dieldrin	4.73	4.63	4.83	286879	266254	7.19
Endrin	5.03	4.93	5.13	251328	266394	5.99
Endosulfan II	5.32	5.22	5.42	249126	251072	0.78
4,4'-DDD	5.15	5.05	5.25	226015	253604	12.21
Endrin aldehyde	5.90	5.78	6.02	193717	193524	0.10
Endosulfan sulfate	6.52	6.40	6.64	215528	210351	2.40
4,4'-DDT	5.52	5.40	5.64	193635	159950	17.40
Endrin ketone	6.88	6.76	7.00	253954	237906	6.32
Methoxychlor	6.24	6.12	6.36	92981	83236	10.48
alpha-Chlordane	4.28	4.20	4.36	276510	290714	5.14
gamma-Chlordane	4.12	4.04	4.20	285196	302155	5.95

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/24/2013 **Instrument ID:** GC-V

Data File: V4651.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1472856	4.75
beta-BHC	3.30	3.24	3.36	516004	537037	4.08
gamma-BHC	3.22	3.16	3.28	1224881	1313635	7.25
delta-BHC	3.62	3.56	3.68	1208794	1276661	5.61
Heptachlor	3.71	3.64	3.80	1221918	1180838	3.36
Aldrin	4.10	4.02	4.18	1208772	1247233	3.18
Heptachlor epoxide	4.82	4.74	4.90	1019283	1047093	2.73
Endosulfan I	5.35	5.27	5.43	915354	963332	5.24
4,4'-DDE	5.53	5.43	5.63	915635	943219	3.01
Dieldrin	5.74	5.64	5.84	971694	892875	8.11
Endrin	6.17	6.07	6.27	779441	827275	6.14
Endosulfan II	6.49	6.39	6.59	845502	845320	0.02
4,4'-DDD	6.37	6.27	6.47	705474	770882	9.27
Endrin aldehyde	6.95	6.83	7.07	543775	533845	1.83
Endosulfan sulfate	7.26	7.14	7.38	583376	540056	7.43
4,4'-DDT	6.82	6.70	6.94	538404	441591	17.98
Endrin ketone	7.77	7.65	7.89	555958	572551	2.98
Methoxychlor	7.57	7.46	7.70	200805	167890	16.39
alpha-Chlordane	5.28	5.20	5.36	945093	965094	2.12
gamma-Chlordane	5.08	5.00	5.16	1020218	1056385	3.55

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/25/2013 **Instrument ID:** GC-V

Data File: V4654.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	382371	6.30
beta-BHC	2.69	2.63	2.75	138270	130894	5.33
gamma-BHC	2.62	2.56	2.68	307347	349108	13.59
delta-BHC	2.85	2.79	2.91	323067	349623	8.22
Heptachlor	3.04	2.96	3.12	318470	330611	3.81
Aldrin	3.33	3.25	3.41	315577	332491	5.36
Heptachlor epoxide	3.98	3.90	4.06	280736	293097	4.40
Endosulfan I	4.44	4.36	4.52	296607	304343	2.61
4,4'-DDE	4.39	4.29	4.49	229400	255547	11.40
Dieldrin	4.73	4.63	4.83	286879	263951	7.99
Endrin	5.03	4.93	5.13	251328	273796	8.94
Endosulfan II	5.32	5.22	5.42	249126	257142	3.22
4,4'-DDD	5.15	5.05	5.25	226015	240144	6.25
Endrin aldehyde	5.90	5.78	6.02	193717	198157	2.29
Endosulfan sulfate	6.52	6.40	6.64	215528	218667	1.46
4,4'-DDT	5.52	5.40	5.64	193635	184320	4.81
Endrin ketone	6.88	6.76	7.00	253954	252202	0.69
Methoxychlor	6.24	6.12	6.36	92981	92458	0.56
alpha-Chlordane	4.28	4.20	4.36	276510	289132	4.56
gamma-Chlordane	4.12	4.04	4.20	285196	299799	5.12
Chlordane 500 ppb	2.97	2.89	3.05	7578	8665	14.34
Chlordane {2}	3.47	3.39	3.55	9120	10167	11.48
Chlordane {3}	4.12	4.04	4.20	27556	30740	11.55
Chlordane {4}	4.27	4.19	4.35	43517	48447	11.33
Chlordane {5}	5.23	5.15	5.31	7002	7500	7.11
Toxaphene 500 ppb	5.08	4.99	5.15	2995	2991	0.14
Toxaphene {2}	5.42	5.32	5.48	4340	4033	7.07
Toxaphene {3}	5.88	5.79	5.95	5723	5503	3.84
Toxaphene {4}	6.38	6.29	6.45	6032	5641	6.48
Toxaphene {5}	6.87	6.78	6.94	5978	5317	11.06

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/25/2013 **Instrument ID:** GC-V

Data File: V4654.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1460886	3.90
beta-BHC	3.30	3.24	3.36	516004	492710	4.51
gamma-BHC	3.22	3.16	3.28	1224881	1312805	7.18
delta-BHC	3.62	3.56	3.68	1208794	1252151	3.59
Heptachlor	3.72	3.64	3.80	1221918	1200678	1.74
Aldrin	4.10	4.02	4.18	1208772	1213063	0.35
Heptachlor epoxide	4.82	4.74	4.90	1019283	1016216	0.30
Endosulfan I	5.35	5.27	5.43	915354	941751	2.88
4,4'-DDE	5.53	5.43	5.63	915635	937868	2.43
Dieldrin	5.74	5.64	5.84	971694	870988	10.36
Endrin	6.17	6.07	6.27	779441	842601	8.10
Endosulfan II	6.49	6.39	6.59	845502	838814	0.79
4,4'-DDD	6.37	6.27	6.47	705474	730040	3.48
Endrin aldehyde	6.95	6.83	7.07	543775	537299	1.19
Endosulfan sulfate	7.26	7.14	7.38	583376	558720	4.23
4,4'-DDT	6.82	6.70	6.94	538404	482603	10.36
Endrin ketone	7.77	7.65	7.89	555958	552061	0.70
Methoxychlor	7.58	7.46	7.70	200805	227196	13.14
alpha-Chlordane	5.28	5.20	5.36	945093	956703	1.23
gamma-Chlordane	5.08	5.00	5.16	1020218	1037345	1.68
Chlordane 500 ppb	3.55	3.47	3.63	33798	36912	9.21
Chlordane {2}	4.28	4.20	4.36	38358	40777	6.31
Chlordane {3}	5.08	5.00	5.16	103667	100198	3.35
Chlordane {4}	5.21	5.13	5.29	81930	82863	1.14
Chlordane {5}	5.28	5.20	5.36	87377	88775	1.60
Toxaphene 500 ppb	6.64	6.54	6.70	14633	12499	14.58
Toxaphene {2}	6.98	6.88	7.04	15901	14369	9.64
Toxaphene {3}	7.23	7.13	7.29	12662	11059	12.66
Toxaphene {4}	7.52	7.43	7.59	12244	10293	15.94
Toxaphene {5}	7.87	7.78	7.94	8968	10668	18.95

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/25/2013 **Instrument ID:** GC-V

Data File: V4669.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.37	2.31	2.43	359711	370966	3.13
beta-BHC	2.69	2.63	2.75	138270	144318	4.37
gamma-BHC	2.62	2.56	2.68	307347	326089	6.10
delta-BHC	2.85	2.79	2.91	323067	339426	5.06
Heptachlor	3.04	2.96	3.12	318470	316687	0.56
Aldrin	3.33	3.25	3.41	315577	326392	3.43
Heptachlor epoxide	3.98	3.90	4.06	280736	291070	3.68
Endosulfan I	4.44	4.36	4.52	296607	310822	4.79
4,4'-DDE	4.39	4.29	4.49	229400	251398	9.59
Dieldrin	4.73	4.63	4.83	286879	265195	7.56
Endrin	5.03	4.93	5.13	251328	271009	7.83
Endosulfan II	5.32	5.22	5.42	249126	260437	4.54
4,4'-DDD	5.15	5.05	5.25	226015	252752	11.83
Endrin aldehyde	5.90	5.78	6.02	193717	201457	4.00
Endosulfan sulfate	6.52	6.40	6.64	215528	219897	2.03
4,4'-DDT	5.52	5.40	5.64	193635	165636	14.46
Endrin ketone	6.88	6.76	7.00	253954	257303	1.32
Methoxychlor	6.24	6.12	6.36	92981	84669	8.94
alpha-Chlordane	4.28	4.20	4.36	276510	288279	4.26
gamma-Chlordane	4.12	4.04	4.20	285196	298299	4.59

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 09/25/2013 **Instrument ID:** GC-V

Data File: V4669.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.86	2.80	2.92	1406038	1469680	4.53
beta-BHC	3.30	3.24	3.36	516004	521235	1.01
gamma-BHC	3.22	3.16	3.28	1224881	1311445	7.07
delta-BHC	3.62	3.56	3.68	1208794	1260917	4.31
Heptachlor	3.71	3.64	3.80	1221918	1201465	1.67
Aldrin	4.10	4.02	4.18	1208772	1247493	3.20
Heptachlor epoxide	4.82	4.74	4.90	1019283	1033426	1.39
Endosulfan I	5.35	5.27	5.43	915354	962936	5.20
4,4'-DDE	5.53	5.43	5.63	915635	970805	6.03
Dieldrin	5.74	5.64	5.84	971694	906790	6.68
Endrin	6.17	6.07	6.27	779441	863094	10.73
Endosulfan II	6.49	6.39	6.59	845502	887689	4.99
4,4'-DDD	6.37	6.27	6.47	705474	789497	11.91
Endrin aldehyde	6.95	6.83	7.07	543775	561565	3.27
Endosulfan sulfate	7.26	7.14	7.38	583376	577203	1.06
4,4'-DDT	6.82	6.70	6.94	538404	451441	16.15
Endrin ketone	7.76	7.65	7.89	555958	552447	0.63
Methoxychlor	7.57	7.46	7.70	200805	174900	12.90
alpha-Chlordane	5.28	5.20	5.36	945093	969884	2.62
gamma-Chlordane	5.08	5.00	5.16	1020218	1052745	3.19

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.98 **DCB 1** 7.89 **TCMX 2** 2.33 **DCB 2** 8.82

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKA130919-07	09/20/2013	12:26	1.98		7.89		2.33		8.82	
TW-1	09073-001	09/20/2013	12:51	1.98		7.89		2.33		8.82	
Pest	09073-001MS	09/20/2013	13:03	1.98		7.89		2.33		8.82	
Pest	09073-001MSD	09/20/2013	13:15	1.98		7.89		2.33		8.82	
Pest	LCSA130919-07	09/20/2013	13:52	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.98 **DCB 1** 7.89 **TCMX 2** 2.33 **DCB 2** 8.82

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKA130923-16	09/25/2013	12:02	1.98		7.89		2.33		8.82	
AOC-7-2	09198-005	09/25/2013	12:14	1.98		7.89		2.33		8.82	
AOC-7-4	09198-006	09/25/2013	12:26	1.98		7.89		2.33		8.82	
EX._WELL	09198-007	09/25/2013	12:38	1.98		7.89		2.33		8.82	
Pest	LCSA130923-16	09/25/2013	12:50	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.99 **DCB 1** 7.90 **TCMX 2** 2.35 **DCB 2** 8.83

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS130923-11	09/24/2013	11:49	1.99		7.90		2.35		8.83	
C1/S1	09290-001	09/24/2013	12:01	1.98		7.89		2.33		8.82	
C2/S2	09290-002	09/24/2013	12:13	1.98		7.89		2.33		8.82	
PI-6N1/0-0	09339-001	09/24/2013	12:25	1.98		7.89		2.33		8.82	
PI-6E1/0-0	09339-003	09/24/2013	12:37	1.98		7.89		2.33		8.82	
PI-6W1/0-0	09339-005	09/24/2013	12:49	1.98		7.89		2.33		8.82	
PI-6S1/0-0	09339-007	09/24/2013	13:01	1.98		7.89		2.33		8.82	
PI-6D1/1-1	09339-009	09/24/2013	13:13	1.98		7.89		2.33		8.82	
C-1_WAREHO	09196-001	09/24/2013	13:25	1.98		7.89		2.33		8.82	
C-2_LOAD_D	09196-002	09/24/2013	13:37	1.98		7.89		2.33		8.82	
C-3_BLD_2	09196-003	09/24/2013	13:49	1.98		7.89		2.33		8.82	
C-4_IMP._M	09196-004	09/24/2013	14:01	1.98		7.88		2.33		8.82	
C-5_SPHINX	09196-005	09/24/2013	14:13	1.98		7.89		2.33		8.82	
PI-6S1/0-0	09339-007DL	09/24/2013	15:04	1.99		7.89		2.34		8.83	
C-1_WAREHO	09196-001DL	09/24/2013	15:16	1.98		7.89		2.33		8.82	
C-2_LOAD_D	09196-002DL	09/24/2013	15:28	1.98		7.88		2.33		8.82	
C-3_BLD_2	09196-003DL	09/24/2013	15:41	1.98		7.89		2.33		8.82	
C-5_SPHINX	09196-005DL	09/24/2013	15:53	1.98		7.89		2.33		8.81	
AOC-7-2/11	09197-004	09/24/2013	16:05	1.98		7.83		2.33		8.82	
AOC-7-3/9.	09197-005	09/24/2013	16:29	1.98		7.89		2.33		8.82	
AOC-8/12.5	09197-007	09/24/2013	16:41	1.98		7.89		2.33		8.82	
AOC-12-2/3	09197-009	09/24/2013	16:53	1.98		7.89		2.33		8.82	
AOC-6/18.5	09197-010	09/24/2013	17:05	1.98		7.89		2.33		8.82	
AOC-12-3/1	09198-003	09/24/2013	17:17	1.98		7.89		2.33		8.82	
VTS_D1	08883-001	09/24/2013	17:29	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.98 **DCB 1** 7.89 **TCMX 2** 2.33 **DCB 2** 8.82

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	09198-003MS	09/24/2013	17:41	1.98		7.89		2.33		8.82	
Pest	09198-003MSD	09/24/2013	17:53	1.98		7.89		2.33		8.82	
Pest	LCSS130923-11	09/24/2013	18:05	1.98		7.89		2.33		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 09/20/2013

Data file: V4568.D Fri Sep 20 14:14:32 2013

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	17548316	Endrin (1)	21097738	4.94	3.01
DDD	373761	Endrin ketone	374746		
DDE	538449	Endrin aldehyde	279073		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	52977047	Endrin (2)	70076781	8.91	1.34
DDD	1892775	Endrin ketone	952987		
DDE	3291887	Endrin aldehyde	0		

Date Analyzed: 09/25/2013

Data file: V4652.D Thu Sep 26 09:03:20 2013

1st Column

DDT (1)	14175662	Endrin (1)	19132707
DDD	926500	Endrin ketone	668090
DDE	420140	Endrin aldehyde	0

2nd Column

DDT (2)	37924679	Endrin (2)	57848214
DDD	2628345	Endrin ketone	1131179
DDE	1893205	Endrin aldehyde	0

% Breakdown

DDT (1)	Endrin (1)
8.68	3.37

DDT (2)	Endrin (2)
10.65	1.92

Date Analyzed: 09/24/2013

Data file: V4613.D Tue Sep 24 09:44:02 2013

1st Column

DDT (1)	14266367	Endrin (1)	19199025
DDD	1240980	Endrin ketone	899773
DDE	546959	Endrin aldehyde	297954

2nd Column

DDT (2)	43983997	Endrin (2)	66718443
DDD	43769	Endrin ketone	2668567
DDE	199164	Endrin aldehyde	58684

% Breakdown

DDT (1)	Endrin (1)
11.14	5.87

DDT (2)	Endrin (2)
0.55	3.93

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4646.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 17:17
Operator : IB
Sample : AOC-12-3/1,09198-003,S,30.22g,19.9,09/23/13,1
Misc : 130923-11,09/18/13,09/18/13,1
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:00:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		1.98	2.33	20422731	75989033	113.428	108.266
Spiked Amount	200.000			Recovery	=	56.71%	54.13%
2) S DCB		7.89	8.82	12326219	25220480	170.966	146.406
Spiked Amount	200.000			Recovery	=	85.48%	73.20%
Target Compounds							
Sum Chlordane				0	0	N.D.	N.D.
Average Chlordane						0.000	0.000
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

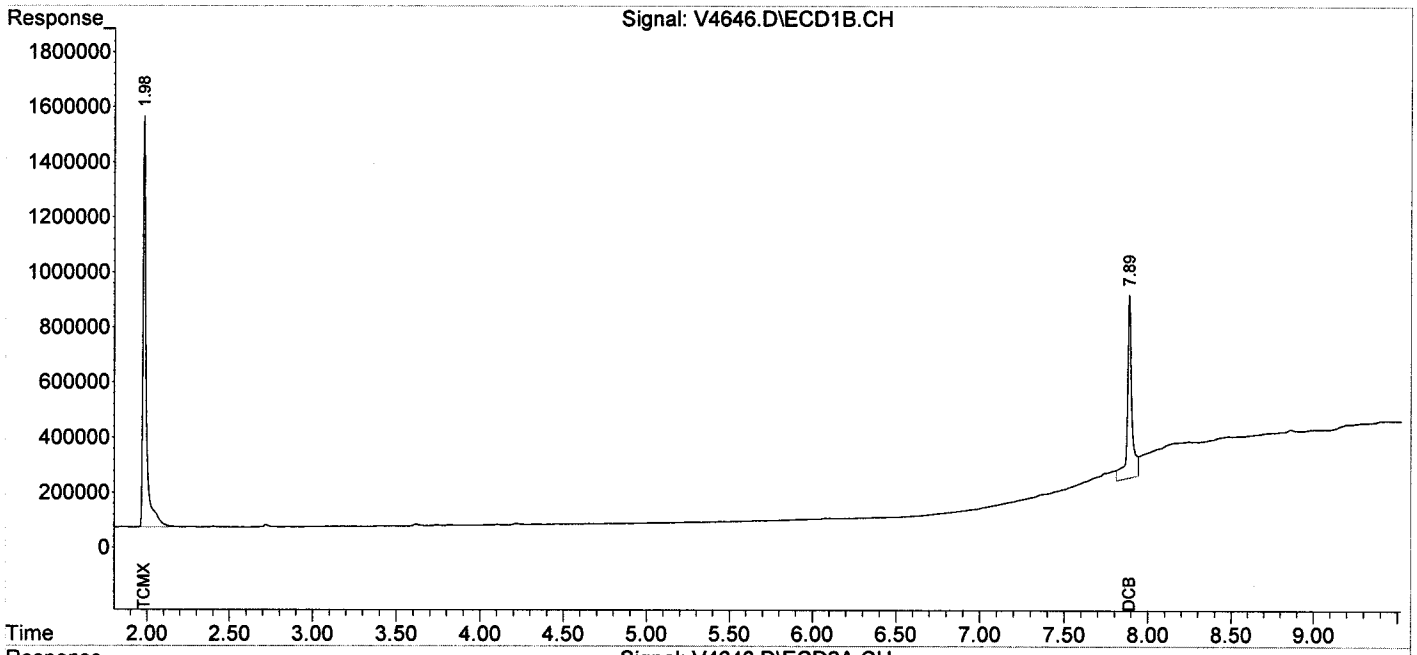
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

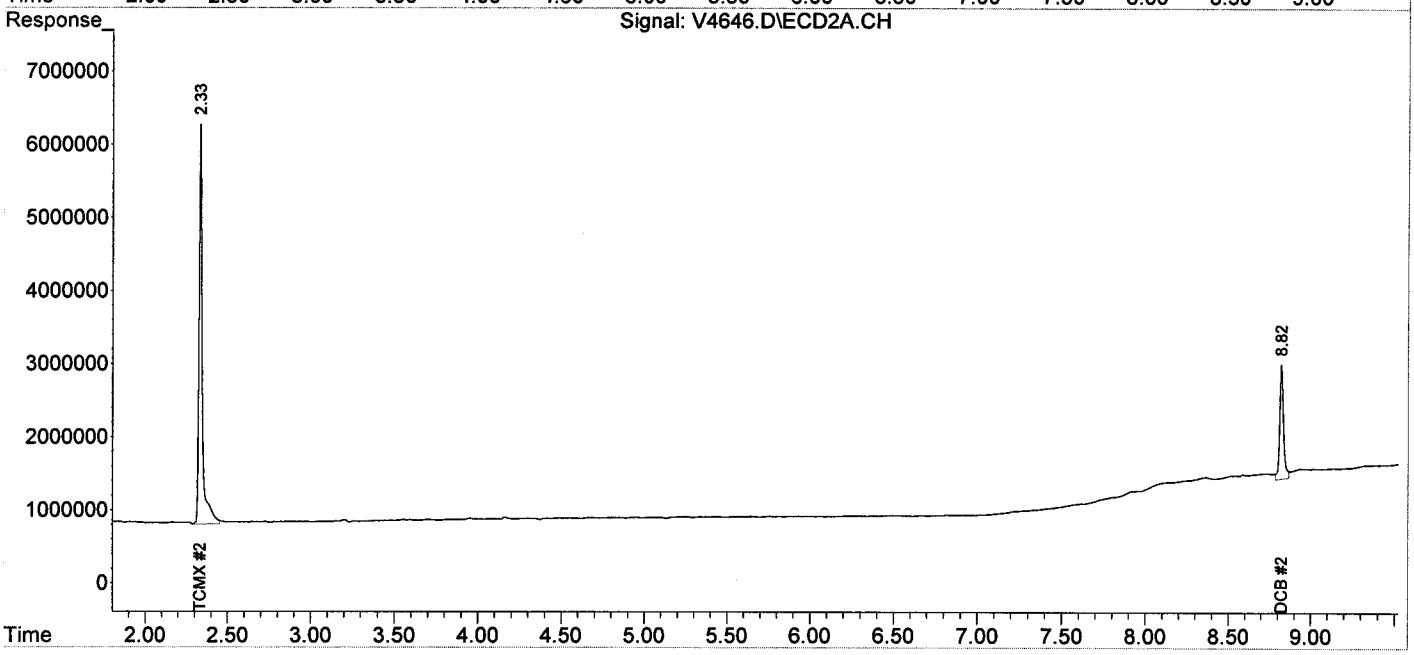
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4646.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 17:17
Operator : IB
Sample : AOC-12-3/1,09198-003,S,30.22g,19.9,09/23/13,1
Misc : 130923-11,09/18/13,09/18/13,1
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 09:00:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : V4658.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 12:14
Operator : IB
Sample : AOC-7-2,09198-005,A,1000ml,100,09/23/13,1
Misc : 130923-16,09/18/13,09/18/13,10
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:37:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Wed Sep 25 11:56:55 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	1997052	6903454	11.092	9.836m
Spiked Amount 200.000			Recovery	=	5.55%	4.92%
2) S DCB	7.89	8.82	1367205	2902054	18.963m	16.847m
Spiked Amount 200.000			Recovery	=	9.48%	8.42%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

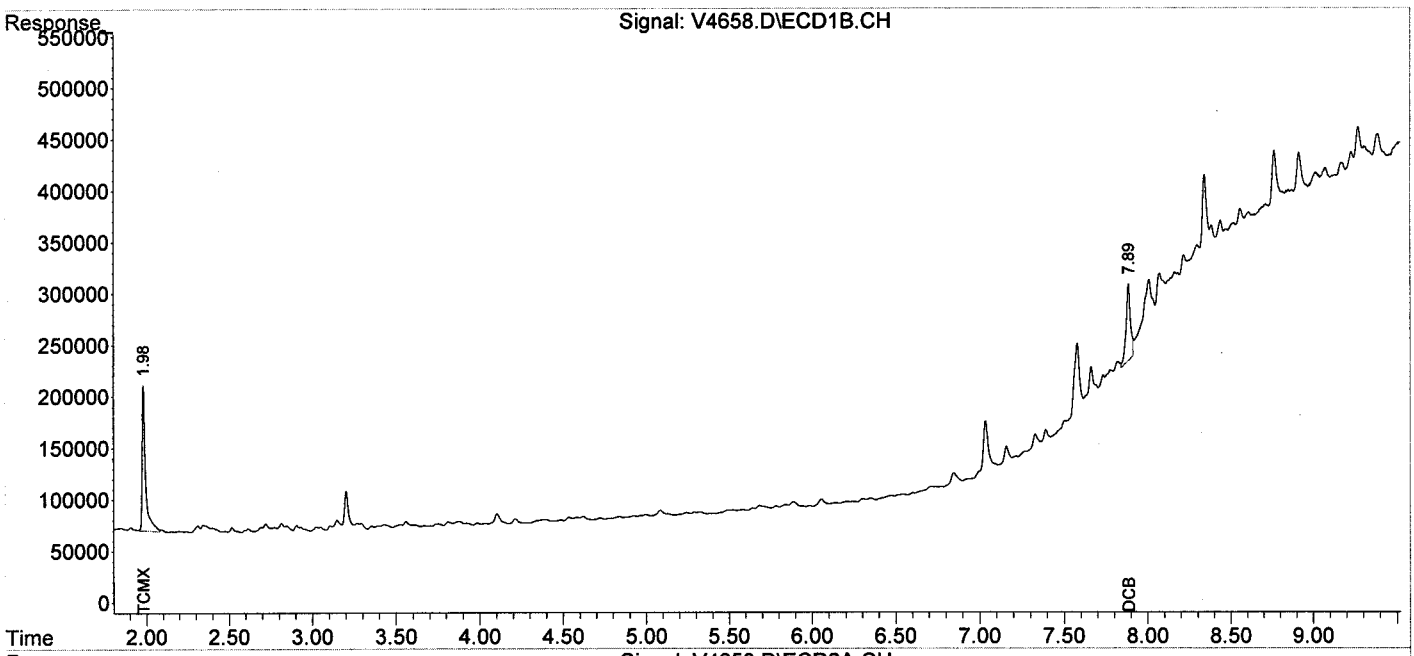
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

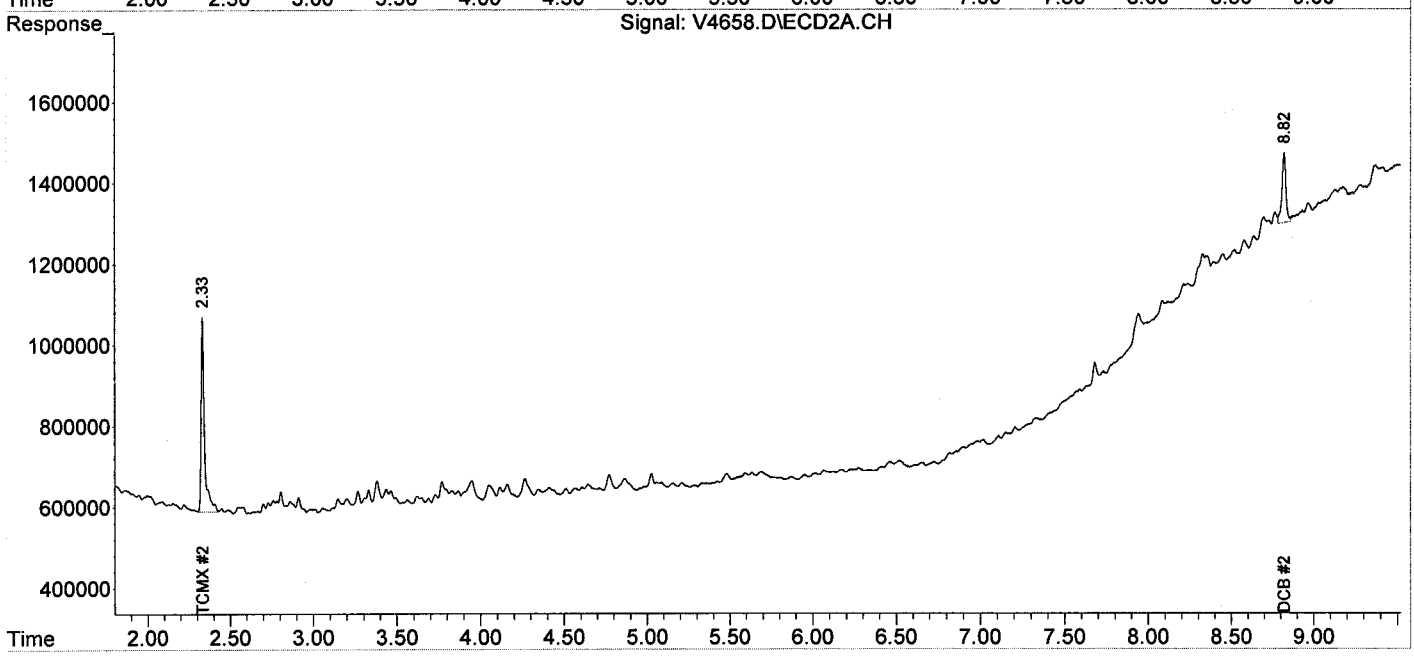
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : V4658.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 12:14
Operator : IB
Sample : AOC-7-2,09198-005,A,1000ml,100,09/23/13,1
Misc : 130923-16,09/18/13,09/18/13,10
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:37:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Wed Sep 25 11:56:55 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : V4659.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 12:26
Operator : IB
Sample : AOC-7-4,09198-006,A,1000ml,100,09/23/13,1
Misc : 130923-16,09/18/13,09/18/13,10
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:38:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Wed Sep 25 11:56:55 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	2690588	9148168	14.944	13.034
Spiked Amount 200.000			Recovery =		7.47%	6.52%
2) S DCB	7.89	8.82	1106500	3853146	15.347m	22.368m#
Spiked Amount 200.000			Recovery =		7.67%	11.18%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

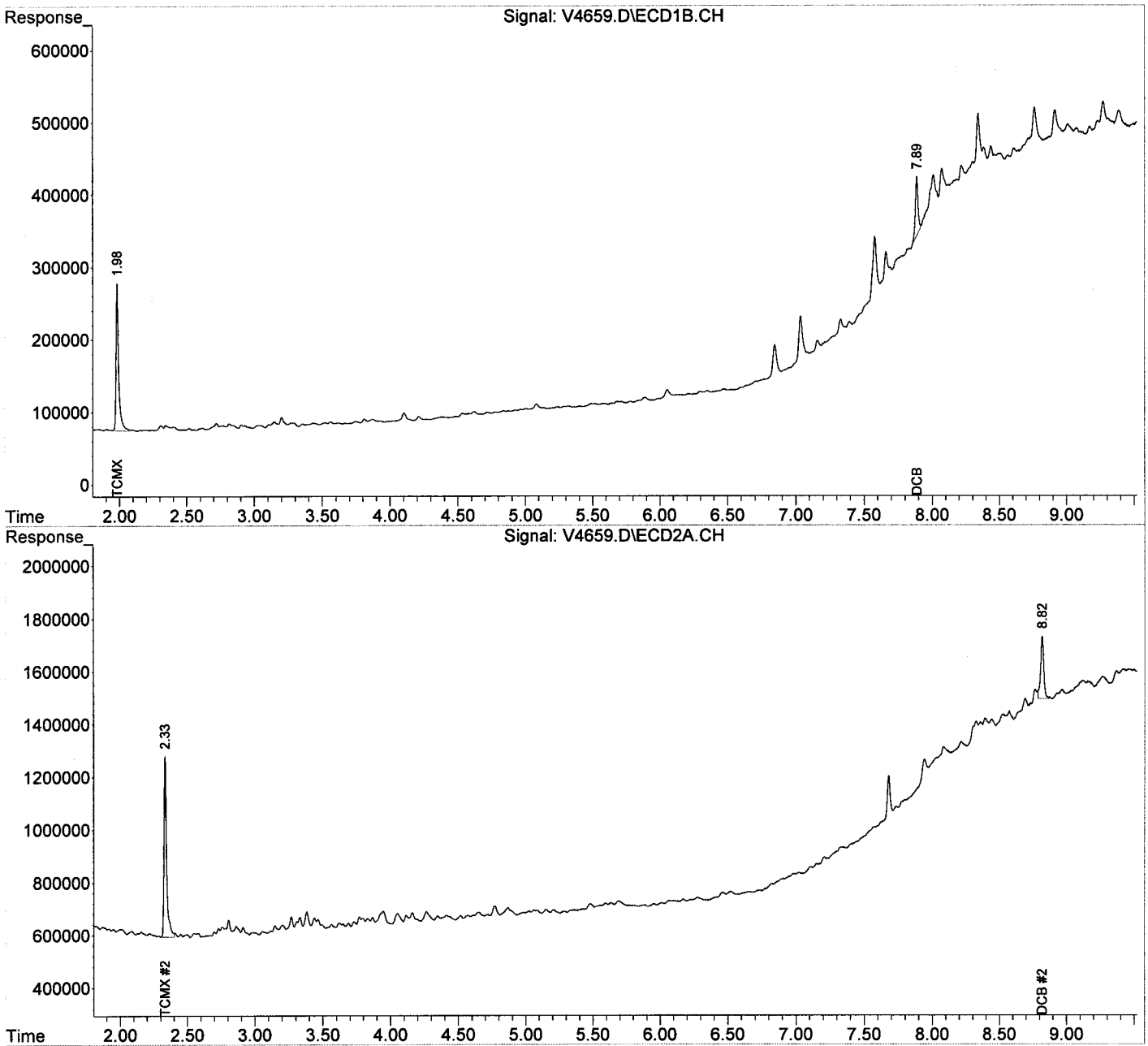
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : V4659.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 12:26
Operator : IB
Sample : AOC-7-4,09198-006,A,1000ml,100,09/23/13,1
Misc : 130923-16,09/18/13,09/18/13,10
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:38:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Wed Sep 25 11:56:55 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : V4660.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 12:38
Operator : IB
Sample : EX._WELL,09198-007,A,1000ml,100,09/23/13,1
Misc : 130923-16,09/18/13,09/18/13,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:58:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Wed Sep 25 11:56:55 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	22395521	78497332	124.385	111.839
Spiked Amount 200.000			Recovery	=	62.19%	55.92%
2) S DCB	7.89	8.82	12045156	29882317	167.067	173.469m
Spiked Amount 200.000			Recovery	=	83.53%	86.73%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

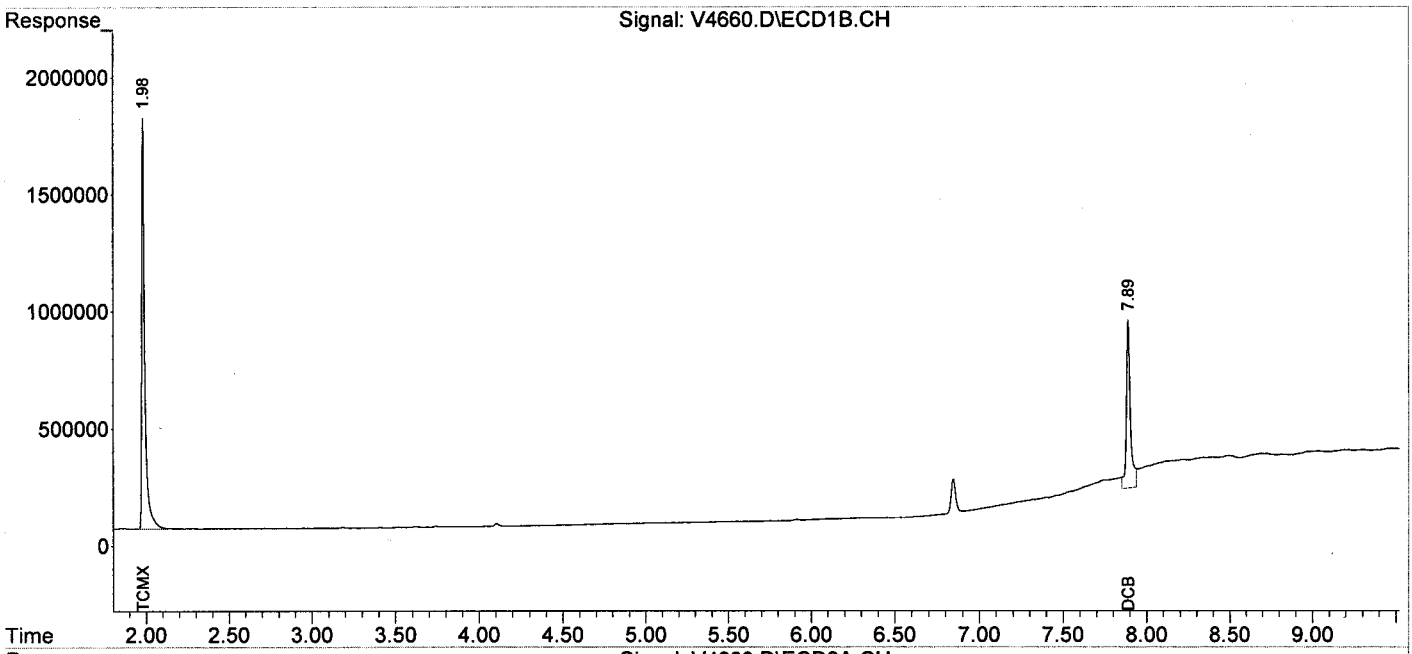
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

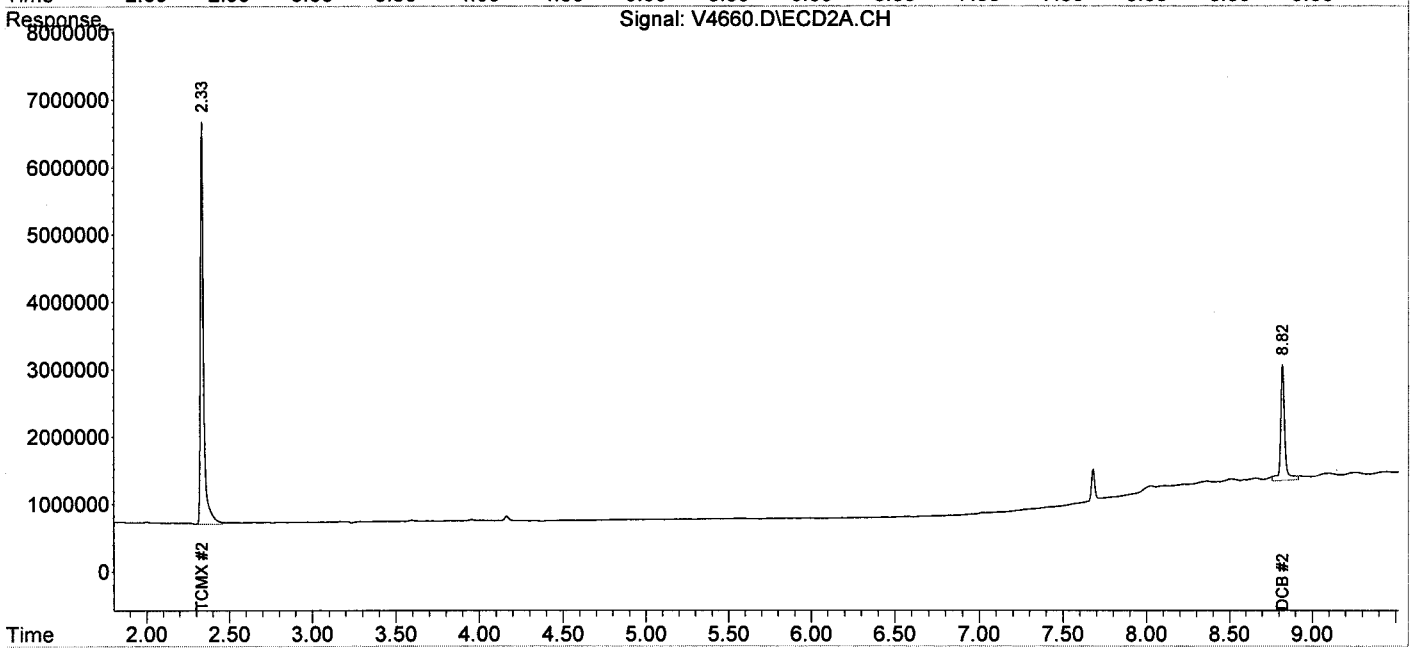
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : V4660.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 12:38
Operator : IB
Sample : EX._WELL,09198-007,A,1000ml,100,09/23/13,1
Misc : 130923-16,09/18/13,09/18/13,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:58:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Wed Sep 25 11:56:55 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKA130919-07
Client ID: Pest
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/20/2013
Data file: V4576.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Chlordane	ND		0.125	0.060
Toxaphene	ND		0.125	0.060

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKA130923-16
Client ID: Pest
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/25/2013
Data file: V4657.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-20-13\
Data File : V4576.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 20 Sep 2013 12:26
Operator : IB
Sample : Pest,BLKA130919-07,A,1000ml,100,09/19/13,1
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 20 14:18:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0823.M
Quant Title :
QLast Update : Fri Sep 20 10:50:06 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.98	2.33	23894128	93300517	135.524	132.765
Spiked Amount 200.000			Recovery	=	67.76%	66.38%
2) S DCB	7.89	8.82	9707996	22969507	149.009	141.575
Spiked Amount 200.000			Recovery	=	74.50%	70.79%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

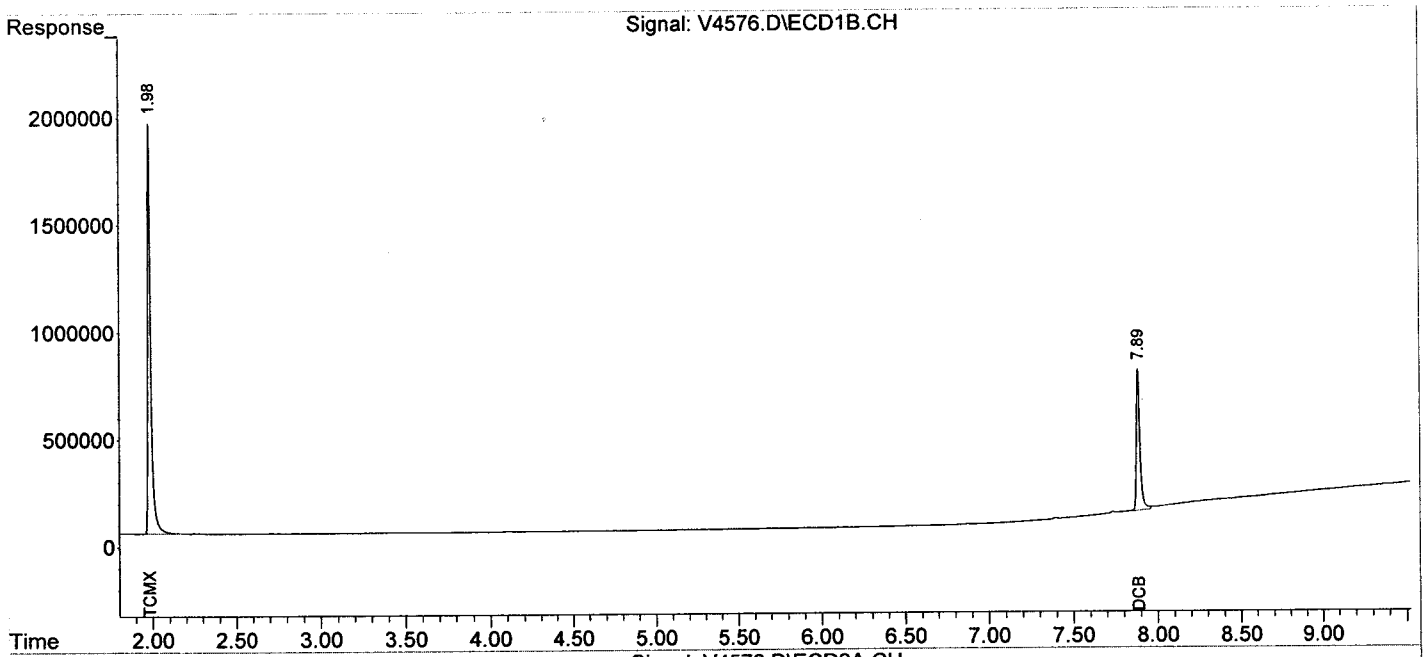
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-20-13\
Data File : V4576.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 20 Sep 2013 12:26
Operator : IB
Sample : Pest,BLKA130919-07,A,1000ml,100,09/19/13,1
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 20 14:18:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0823.M
Quant Title :
QLast Update : Fri Sep 20 10:50:06 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : V4657.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 12:02
Operator : IB
Sample : Pest,BLKA130923-16,A,1000ml,100,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:36:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Wed Sep 25 11:56:55 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

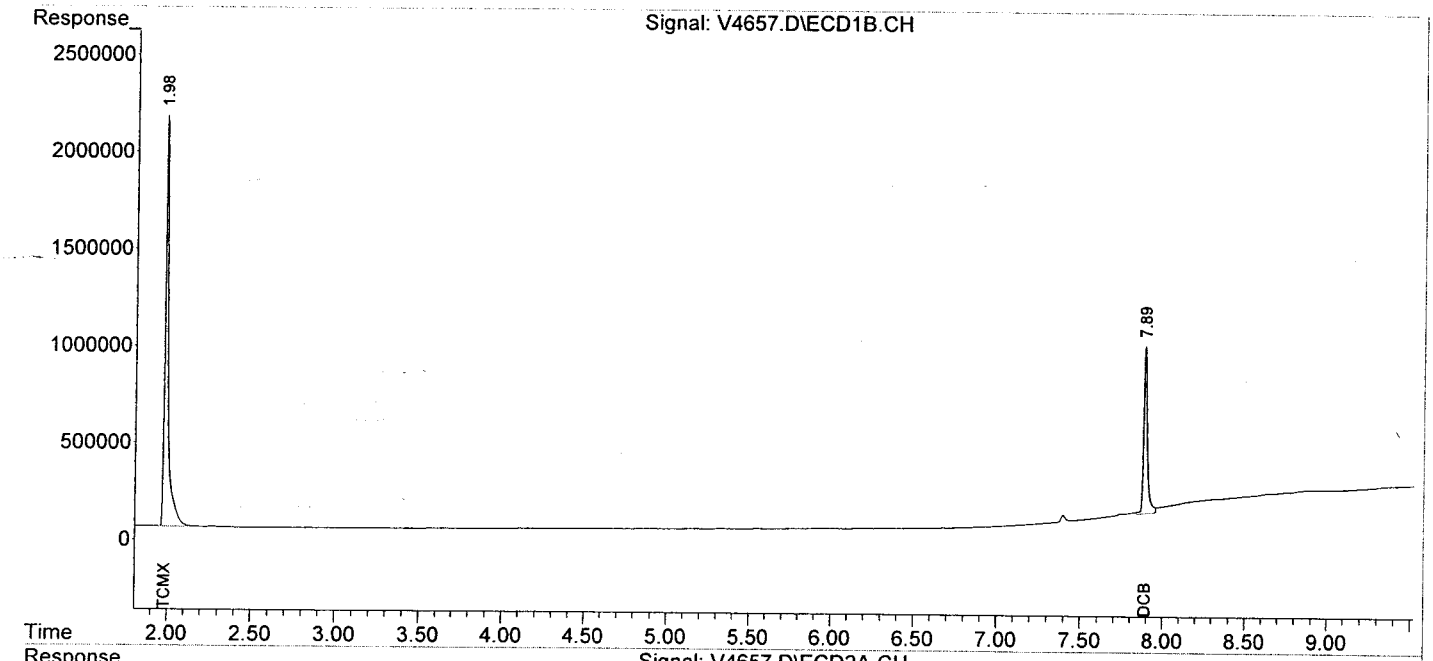
Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		1.98	2.33	31334259	119.3E6	174.031	169.959
Spiked Amount	200.000			Recovery	=	87.02%	84.98%
2) S DCB		7.89	8.82	13275539	32094763	184.133	186.312
Spiked Amount	200.000			Recovery	=	92.07%	93.16%
Target Compounds							
Sum Chlordane				0	0	N.D.	N.D.
Average Chlordane						0.000	0.000
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

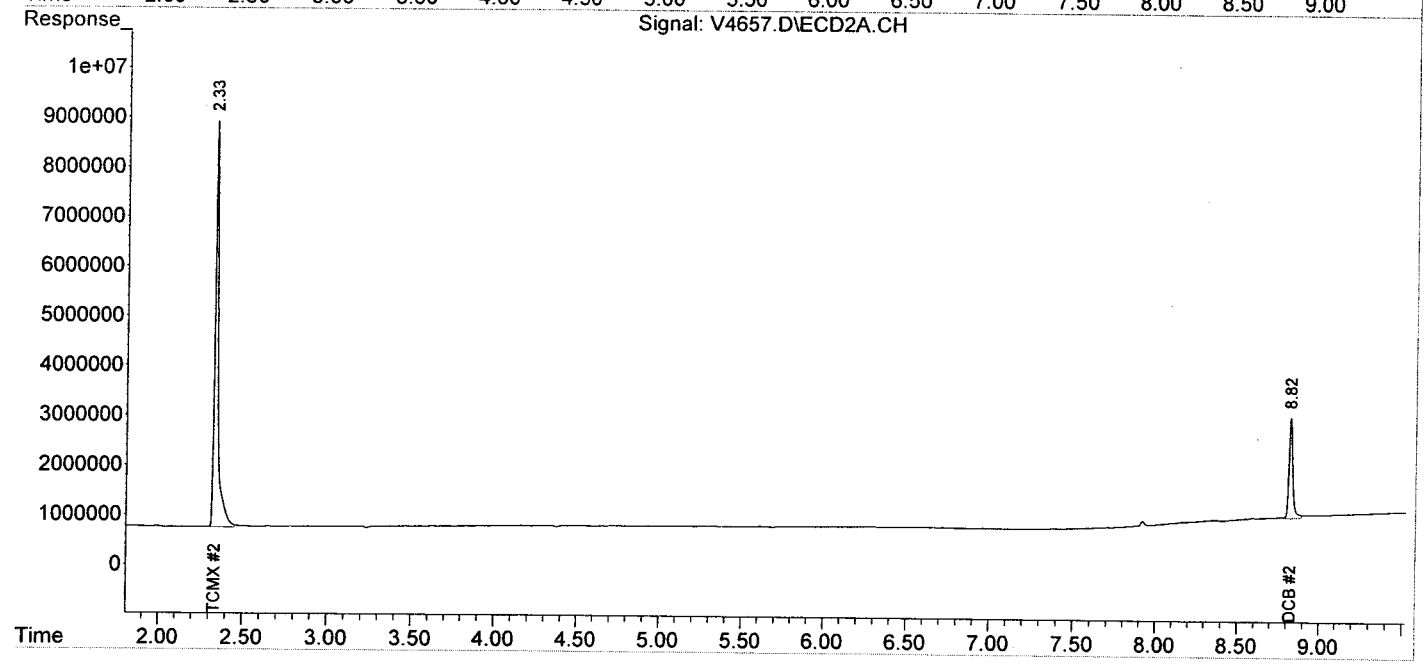
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-25-13\
Data File : V4657.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 25 Sep 2013 12:02
Operator : IB
Sample : Pest,BLKA130923-16,A,1000ml,100,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 25 12:36:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Wed Sep 25 11:56:55 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS130923-11
Client ID: Pest
Date Received: NA
Date Extracted: 09/23/2013
Date Analyzed: 09/24/2013
Data file: V4621.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000334	0.000167
beta-BHC	ND		0.000334	0.000167
gamma-BHC (Lindane)	ND		0.000334	0.000167
delta-BHC	ND		0.000334	0.000167
Heptachlor	ND		0.000334	0.000167
Aldrin	ND		0.000334	0.000167
Heptachlor epoxide	ND		0.000334	0.000167
Endosulfan I	ND		0.000334	0.000167
4,4'-DDE	ND		0.000334	0.000167
Dieldrin	ND		0.000334	0.000167
Endrin	ND		0.000334	0.000167
Endosulfan II	ND		0.000334	0.000167
4,4'-DDD	ND		0.000334	0.000167
Endrin aldehyde	ND		0.000334	0.000167
Endosulfan sulfate	ND		0.000334	0.000167
4,4'-DDT	ND		0.000334	0.000167
Endrin ketone	ND		0.000334	0.000167
Methoxychlor	ND		0.000334	0.000167
alpha-Chlordane	ND		0.000334	0.000167
gamma-Chlordane	ND		0.000334	0.000167
Toxaphene	ND		0.00418	0.002
Endosulfan (I and II)	ND		0.000334	0.000167
Chlordane (alpha and gamma)	ND		0.000334	0.000167

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4621.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 24 Sep 2013 11:49
Operator : IB
Sample : Pest,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 13:46:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

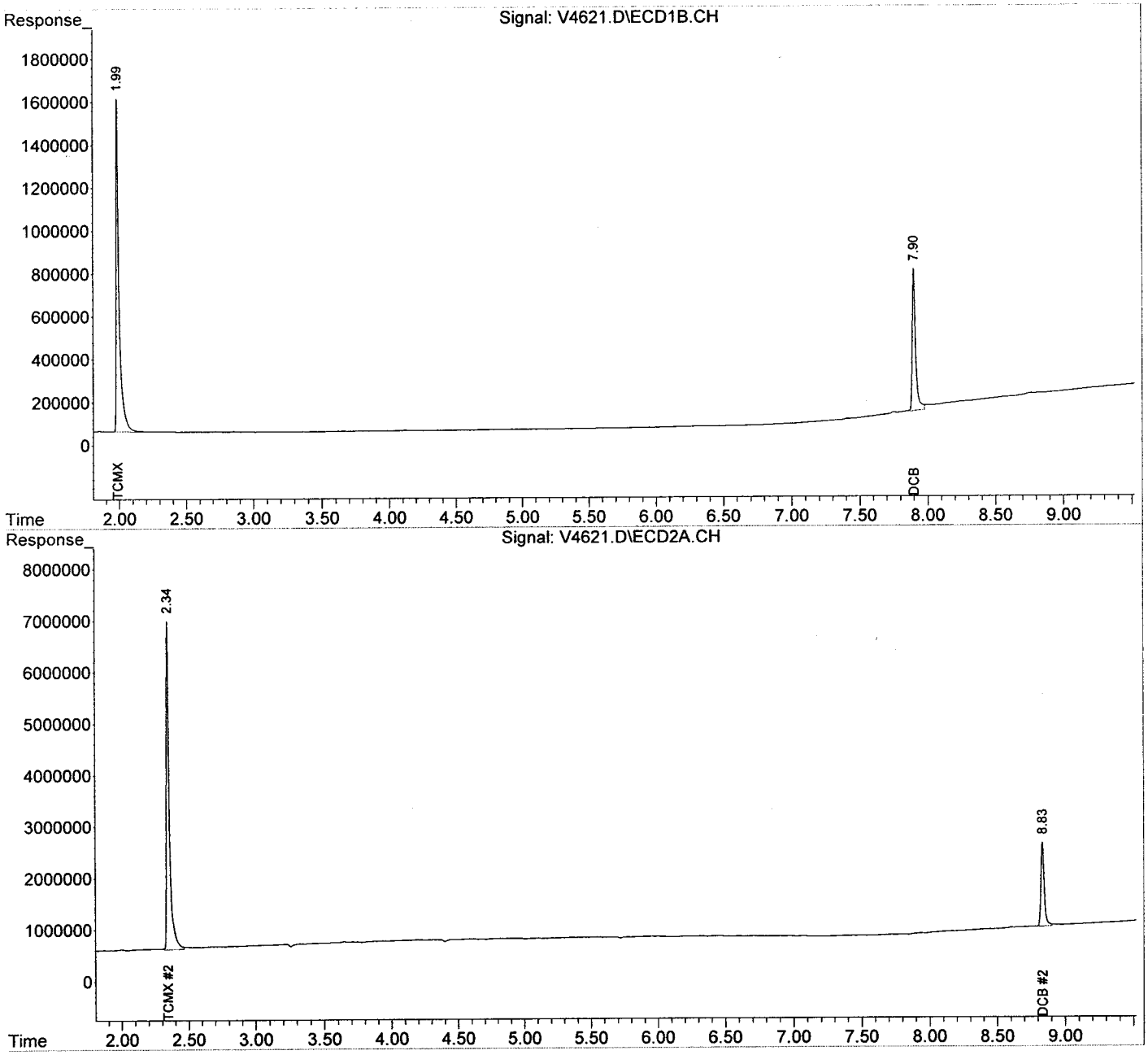
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.99	2.35	23680371	96331302	131.521	137.248
Spiked Amount 200.000			Recovery	=	65.76%	68.62%
2) S DCB	7.90	8.83	11432546	27328357	158.570	158.643
Spiked Amount 200.000			Recovery	=	79.28%	79.32%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : V4621.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On   : 24 Sep 2013 11:49
Operator : IB
Sample   : Pest,BLKS130923-11,S,30.00g,0,09/23/13,1
Misc   : NA,NA,NA,1
ALS Vial : 5   Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Sep 24 13:46:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\VPST0923.M
Quant Title :
QLast Update : Tue Sep 24 10:36:08 2013
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Small noise peaks clipped

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :



HERBICIDE DATA

HERBICIDE QC SUMMARY

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/27/2013

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKA130925-14	AQUEOUS	87		91	
AOC-7-2	09198-005	AQUEOUS	76		81	
AOC-7-4	09198-006	AQUEOUS	64		74	
Herb	09198-005MS	AQUEOUS	76		82	
Herb	09198-005MSD	AQUEOUS	62		73	
Herb	LCSA130925-14	AQUEOUS	84		79	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/30/2013

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKS130926-05	SOIL	86		85	
Herb	LCSS130926-05	SOIL	69		93	
AOC-12-3/1	09198-003	SOIL	40		50	
Herb	09198-003MS	SOIL	48		55	
Herb	09198-003MSD	SOIL	52		49	
C-1_WAREHO	09196-001	SOLID	98		54	
C-2_LOAD_D	09196-002	SOLID	268	M	56	
C-3_BLD_2	09196-003	SOLID	124		54	
C-4_IMP._M	09196-004	SOLID	182	M	48	
AOC-7-2/11	09197-004	SOIL	34		39	
AOC-7-3/9.	09197-005	SOIL	47		52	
AOC-8/12.5	09197-007	SOIL	91		99	
AOC-12-2/3	09197-009	SOIL	77		65	
AOC-6/18.5	09197-010	SOIL	67		65	
C-5_SPHINX	09196-005	SOLID	0	D	0	D
C-5_SPHINX	09196-005DL	SOLID	0	D	0	D

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA130925-14
Date Received: NA
Date Extracted: 09/25/2013
Date Analyzed: 09/27/2013
Data file: W0311.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
Dalapon	200.0	0.00	181.11	91
Dicamba	200.0	0.00	174.70	87
2,4-D	200.0	0.00	149.44	75
2,4,5-TP (Silvex)	200.0	0.00	206.32	103
2,4,5-T	200.0	0.00	182.25	91
2,4-DB	200.0	0.00	143.26	72
Dinoseb	200.0	0.00	157.87	79

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS130926-05
Date Received: NA
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0323.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
Dalapon	200.0	0.00	171.44	86
Dicamba	200.0	0.00	145.06	73
2,4-D	200.0	0.00	93.54	47
2,4,5-TP (Silvex)	200.0	0.00	165.32	83
2,4,5-T	200.0	0.00	148.41	74
2,4-DB	200.0	0.00	217.18	109
Dinoseb	200.0	0.00	118.12	59

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09198-005
Date Received: 09/18/2013
Date Extracted: 09/25/2013
Date Analyzed: 09/27/2013
MS Data file: W0314.D
MSD Data file: W0315.D

GC Column: DB-5/DB1701P
Sample wt/vol: 800.0ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
Dalapon	200.00	0.00	162.89	81		139.62	70	15
Dicamba	200.00	0.00	132.49	66		102.07	51	26
2,4-D	200.00	0.00	123.04	62		101.55	51	19
2,4,5-TP (Silvex)	200.00	0.00	162.95	81		132.48	66	21
2,4,5-T	200.00	0.00	139.90	70		113.06	57	21
2,4-DB	200.00	0.00	74.73	37		78.05	39	4
Dinoseb	200.00	0.00	139.08	70		119.71	60	15

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: 09198-003
Date Received: 09/18/2013
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
MS Data file: W0326.D
MSD Data file: W0327.D

GC Column: DB-5/DB1701P
Sample wt/vol: 15.18g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.9
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
Dalapon	200.00	0.00	61.64	31		69.91	35	13
Dicamba	200.00	0.00	71.47	36		81.61	41	13
2,4-D	200.00	0.00	63.10	32		75.09	38	17
2,4,5-TP (Silvex)	200.00	0.00	67.96	34		81.25	41	18
2,4,5-T	200.00	0.00	60.24	30		59.84	30	1
2,4-DB	200.00	0.00	111.57	56		126.23	63	12
Dinoseb	200.00	0.00	63.53	32		68.72	34	8

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W0311.D	Instrument ID:	GC-W
Date Extracted:	09/25/2013	Matrix:	AQUEOUS
Date Analyzed:	09/27/2013	Time Analyzed:	09:43

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
AOC-7-2	09198-005	09/27/2013	09:57
AOC-7-4	09198-006	09/27/2013	10:11
Herb	09198-005MS	09/27/2013	10:25
Herb	09198-005MSD	09/27/2013	10:39
Herb	LCSA130925-14	09/27/2013	10:53

HERBICIDE METHOD BLANK SUMMARY

Lab File ID: W0323.D

Instrument ID: GC-W

Date Extracted: 09/26/2013

Matrix: SOIL

Date Analyzed: 09/30/2013

Time Analyzed: 09:43

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
Herb	LCSS130926-05	09/30/2013	09:57
AOC-12-3/1	09198-003	09/30/2013	10:11
Herb	09198-003MS	09/30/2013	10:25
Herb	09198-003MSD	09/30/2013	10:39
C-1_WAREHO	09196-001	09/30/2013	10:53
C-2_LOAD_D	09196-002	09/30/2013	11:07
C-3_BLD_2	09196-003	09/30/2013	11:21
C-4_IMP._M	09196-004	09/30/2013	11:35
AOC-7-2/11	09197-004	09/30/2013	12:31
AOC-7-3/9.	09197-005	09/30/2013	12:45
AOC-8/12.5	09197-007	09/30/2013	12:59
AOC-12-2/3	09197-009	09/30/2013	13:14
AOC-6/18.5	09197-010	09/30/2013	13:28
C-5_SPHINX	09196-005	09/30/2013	13:42
C-5_SPHINX	09196-005DL	09/30/2013	13:58

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 09/19/2013

Instrument ID: GC-W

GC Column (1st): RTX-CLP1

Data File: W0294.D W0293.D W0292.D W0291.D W0290.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	50	100	200	250	400		FROM	TO
Dalapon	2.21	2.21	2.21	2.21	2.21	2.21	2.14	2.28
Dicamba	4.82	4.82	4.82	4.82	4.82	4.82	4.75	4.89
2,4-D	5.29	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.70	5.70	5.70	5.70	5.61	5.79
2,4,5-T	5.87	5.87	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.17	6.17	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.89	6.89	6.89	6.89	6.89	6.89	6.80	6.98

GC Column (2nd): RTX-CLP2

Data File: W0294.C W0293.C W0292.C W0291.C W0290.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	50	100	200	250	400		FROM	TO
Dalapon	2.17	2.17	2.18	2.18	2.18	2.18	2.11	2.25
Dicamba	5.02	5.02	5.02	5.02	5.02	5.02	4.95	5.09
2,4-D	5.54	5.53	5.53	5.53	5.53	5.53	5.45	5.61
2,4,5-TP (Silvex)	5.99	5.99	5.98	5.98	5.98	5.98	5.89	6.07
2,4,5-T	6.22	6.22	6.22	6.21	6.21	6.22	6.13	6.31
2,4-DB	6.56	6.56	6.55	6.55	6.55	6.55	6.46	6.64
Dinoseb	6.79	6.79	6.79	6.79	6.79	6.79	6.70	6.88

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 09/19/2013 **Instrument ID:** GC-W

GC Column (1st): RTX-CLP1

Data File: W0294.D W0293.D W0292.D W0291.D W0290.D

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	667410	660186	644212	791023	664098	685386	8.71
Dicamba	1730473	1710168	1671681	2107998	1810946	1806253	9.75
2,4-D	765989	693648	669959	743691	634457	701549	7.64
Silvex	2670698	2673622	2647711	3376779	2461358	2766033	12.75
2,4,5-T	2875063	2774216	2669047	3296605	2338229	2790632	12.45
2,4-DB	524870	509783	460705	538972	496935	506253	5.92
Dinoseb	2168991	2000882	1927554	2415395	2011712	2104907	9.24

GC Column (2nd): RTX-CLP2

Data File: W0294.C W0293.C W0292.C W0291.C W0290.C

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	87415	87751	88934	114231	99195	95505	12.09
Dicamba	243882	244363	221794	277287	239037	245273	8.20
2,4-D	74904	76134	69691	84328	70649	75141	7.74
Silvex	365852	377006	363589	451341	382642	388086	9.33
2,4,5-T	342958	353202	339329	418880	354965	361867	9.00
2,4-DB	45387	47160	41110	52013	43943	45922	8.84
Dinoseb	223573	232962	226434	292018	248969	244791	11.51

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/27/2013 **Instrument ID:** GC-W

Data File: W0310.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	642229	6.30
Dicamba	4.82	4.75	4.89	1806253	1666181	7.75
2,4-D	5.28	5.20	5.36	701549	677054	3.49
Silvex	5.70	5.61	5.79	2766033	2643766	4.42
2,4,5-T	5.86	5.77	5.95	2790632	2672387	4.24
2,4-DB	6.16	6.07	6.25	506253	591842	16.91
Dinoseb	6.89	6.80	6.98	2104907	1998550	5.05

GC Column (2nd): RTX-CLP2

Data File: W0310.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.18	2.11	2.25	95505	97660	2.26
Dicamba	5.02	4.95	5.09	245273	249231	1.61
2,4-D	5.53	5.45	5.61	75141	80121	6.63
Silvex	5.99	5.89	6.07	388086	420496	8.35
2,4,5-T	6.22	6.13	6.31	361867	393166	8.65
2,4-DB	6.56	6.46	6.64	45922	49362	7.49
Dinoseb	6.79	6.70	6.88	244791	267120	9.12

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/27/2013 **Instrument ID:** GC-W

Data File: W0320.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	592045	13.62
Dicamba	4.82	4.75	4.89	1806253	1597152	11.58
2,4-D	5.28	5.20	5.36	701549	617654	11.96
Silvex	5.70	5.61	5.79	2766033	2618406	5.34
2,4,5-T	5.86	5.77	5.95	2790632	2697312	3.34
2,4-DB	6.16	6.07	6.25	506253	543496	7.36
Dinoseb	6.89	6.80	6.98	2104907	1979765	5.95

GC Column (2nd): RTX-CLP2

Data File: W0320.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.17	2.11	2.25	95505	88127	7.73
Dicamba	5.02	4.95	5.09	245273	229123	6.58
2,4-D	5.53	5.45	5.61	75141	81361	8.28
Silvex	5.98	5.89	6.07	388086	383803	1.10
2,4,5-T	6.22	6.13	6.31	361867	382100	5.59
2,4-DB	6.55	6.46	6.64	45922	47490	3.41
Dinoseb	6.79	6.70	6.88	244791	254672	4.04

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/30/2013 **Instrument ID:** GC-W

Data File: W0322.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	623178	9.08
Dicamba	4.82	4.75	4.89	1806253	1646555	8.84
2,4-D	5.28	5.20	5.36	701549	646166	7.89
Silvex	5.70	5.61	5.79	2766033	2419834	12.52
2,4,5-T	5.86	5.77	5.95	2790632	2452165	12.13
2,4-DB	6.16	6.07	6.25	506253	488924	3.42
Dinoseb	6.89	6.80	6.98	2104907	2001846	4.90

GC Column (2nd): RTX-CLP2

Data File: W0322.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.18	2.11	2.25	95505	95252	0.26
Dicamba	5.02	4.95	5.09	245273	247939	1.09
2,4-D	5.53	5.45	5.61	75141	80775	7.50
Silvex	5.99	5.89	6.07	388086	419419	8.07
2,4,5-T	6.22	6.13	6.31	361867	391826	8.28
2,4-DB	6.56	6.46	6.64	45922	49921	8.71
Dinoseb	6.79	6.70	6.88	244791	261550	6.85

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/30/2013 **Instrument ID:** GC-W

Data File: W0340.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.21	2.14	2.28	685386	656262	4.25
Dicamba	4.82	4.75	4.89	1806253	1751402	3.04
2,4-D	5.28	5.20	5.36	701549	720174	2.65
Silvex	5.70	5.61	5.79	2766033	2873327	3.88
2,4,5-T	5.86	5.77	5.95	2790632	2942189	5.43
2,4-DB	6.16	6.07	6.25	506253	462414	8.66
Dinoseb	6.89	6.80	6.98	2104907	2407735	14.39

GC Column (2nd): RTX-CLP2

Data File: W0340.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Dalapon	2.17	2.11	2.25	95505	89690	6.09
Dicamba	5.02	4.95	5.09	245273	230413	6.06
2,4-D	5.53	5.45	5.61	75141	76034	1.19
Silvex	5.98	5.89	6.07	388086	387473	0.16
2,4,5-T	6.22	6.13	6.31	361867	367731	1.62
2,4-DB	6.55	6.46	6.64	45922	48945	6.58
Dinoseb	6.79	6.70	6.88	244791	263943	7.82

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.93

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKA130925-14	09/27/2013	09:43	4.74		4.93	
AOC-7-2	09198-005	09/27/2013	09:57	4.73		4.92	
AOC-7-4	09198-006	09/27/2013	10:11	4.73		4.92	
Herb	09198-005MS	09/27/2013	10:25	4.73		4.92	
Herb	09198-005MSD	09/27/2013	10:39	4.73		4.92	
Herb	LCSA130925-14	09/27/2013	10:53	4.73		4.92	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.93

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKS130926-05	09/30/2013	09:43	4.74		4.93	
Herb	LCSS130926-05	09/30/2013	09:57	4.73		4.92	
AOC-12-3/1	09198-003	09/30/2013	10:11	4.73		4.92	
Herb	09198-003MS	09/30/2013	10:25	4.73		4.92	
Herb	09198-003MSD	09/30/2013	10:39	4.73		4.92	
C-1_WAREHO	09196-001	09/30/2013	10:53	4.73		4.92	
C-2_LOAD_D	09196-002	09/30/2013	11:07	4.72		4.92	
C-3_BLD_2	09196-003	09/30/2013	11:21	4.73		4.92	
C-4_IMP._M	09196-004	09/30/2013	11:35	4.72		4.92	
AOC-7-2/11	09197-004	09/30/2013	12:31	4.73		4.92	
AOC-7-3/9.	09197-005	09/30/2013	12:45	4.73		4.92	
AOC-8/12.5	09197-007	09/30/2013	12:59	4.73		4.92	
AOC-12-2/3	09197-009	09/30/2013	13:14	4.73		4.92	
AOC-6/18.5	09197-010	09/30/2013	13:28	4.73		4.92	
C-5_SPHINX	09196-005	09/30/2013	13:42	0.00	D	0.00	D
C-5_SPHINX	09196-005DL	09/30/2013	13:58	0.00	D	0.00	D

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0325.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 10:11
Operator : JS
Sample : AOC-12-3/1,09198-003,S,15.18g,19.9,09/26/13,1
Misc : 130926-05,09/18/13,09/18/13,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 11:02:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.73	4.92	79960620	13246417	40.300	50.030
Spiked Amount 100.000			Recovery	=	40.30%	50.03%
Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

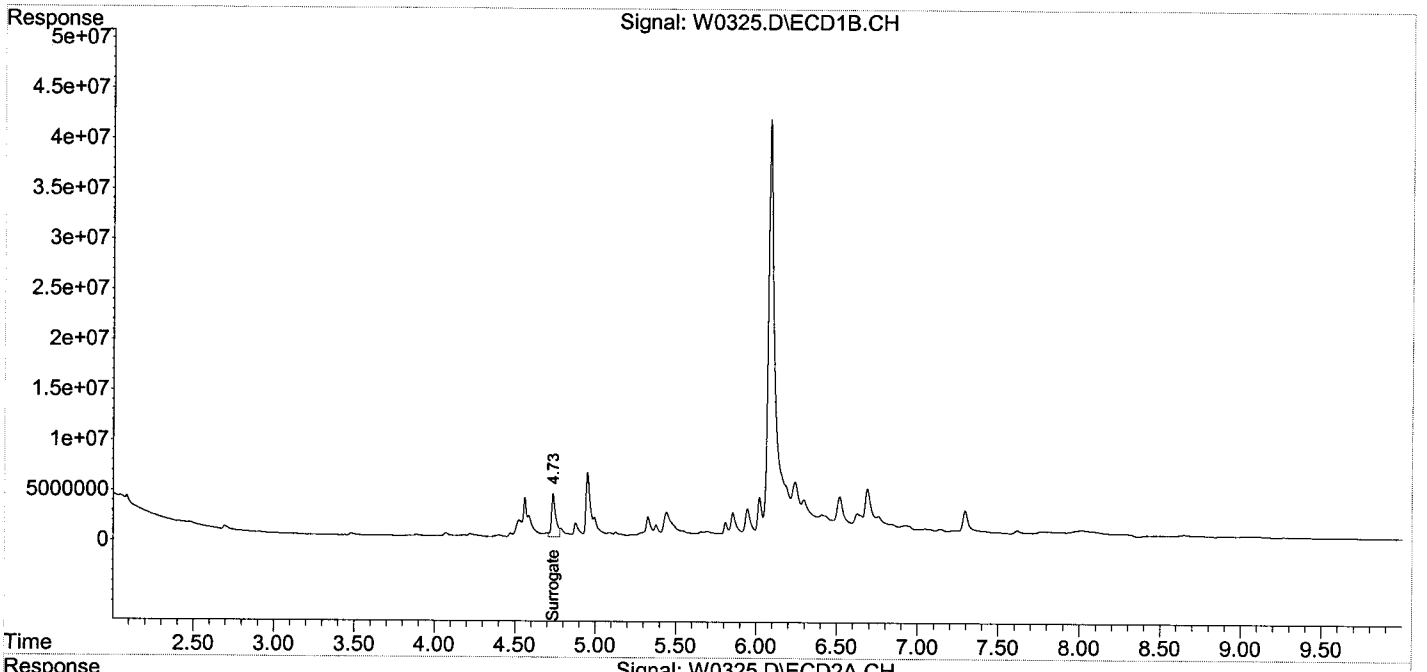
E13-09198 0368

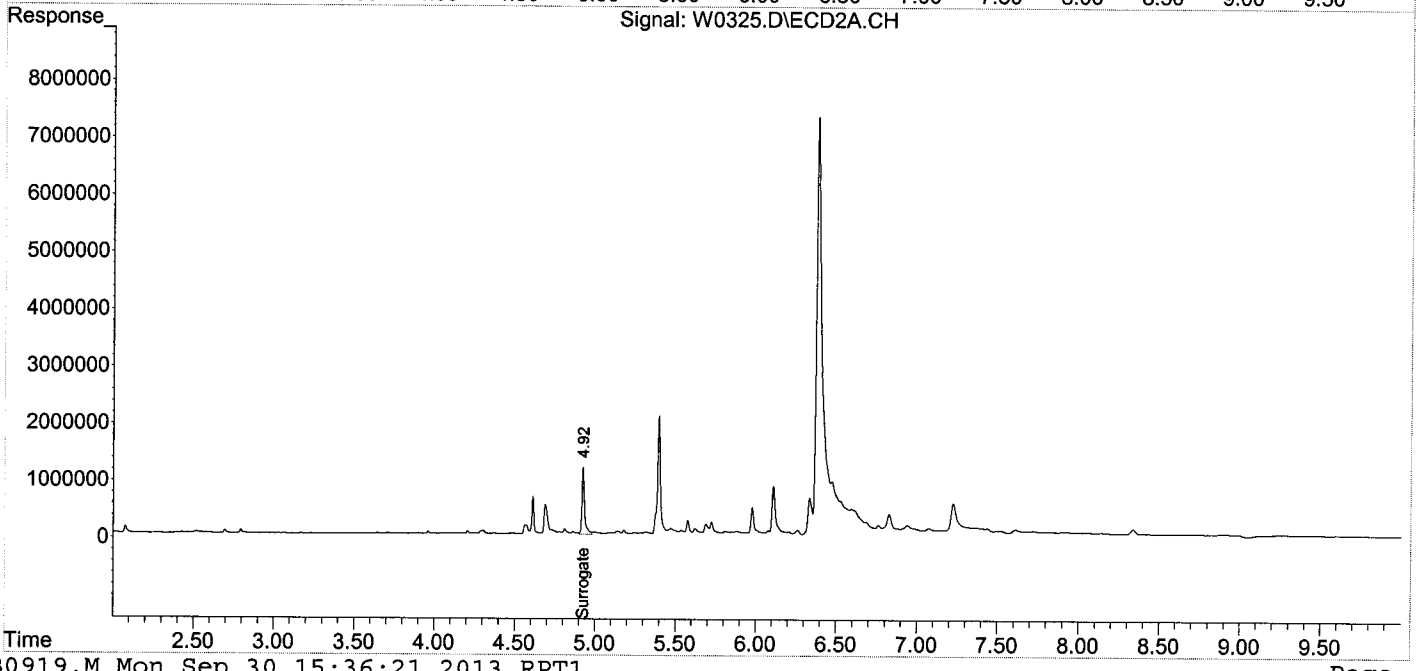
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0325.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 10:11
Operator : JS
Sample : AOC-12-3/1,09198-003,S,15.18g,19.9,09/26/13,1
Misc : 130926-05,09/18/13,09/18/13,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 11:02:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-27-13\
Data File : W0312.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 27 Sep 2013 9:57
Operator : JS
Sample : AOC-7-2,09198-005,A,800.0ml,100,09/25/13,1
Misc : 130925-14,09/18/13,09/18/13,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 09:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.73	4.92	150.9E6	21302685	76.047	80.457m
Spiked Amount	100.000			Recovery	=	76.05%	80.46%
	Target Compounds						

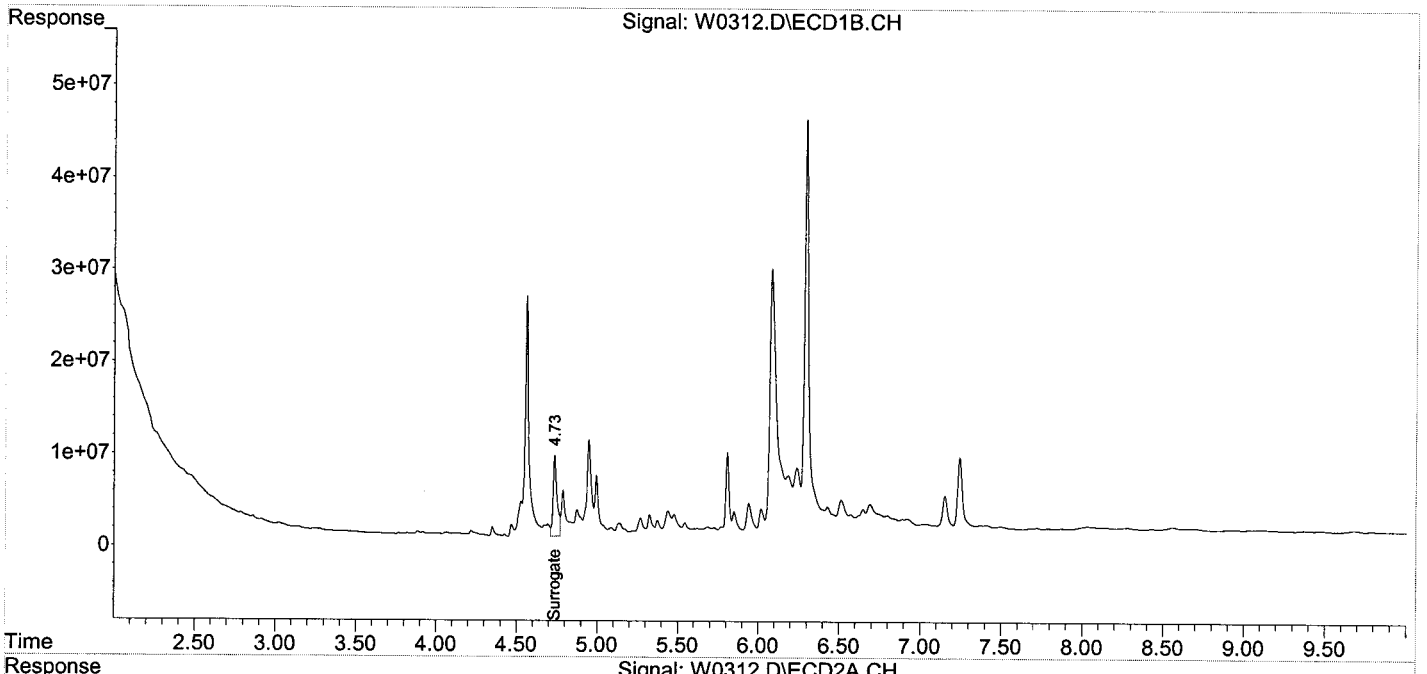
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

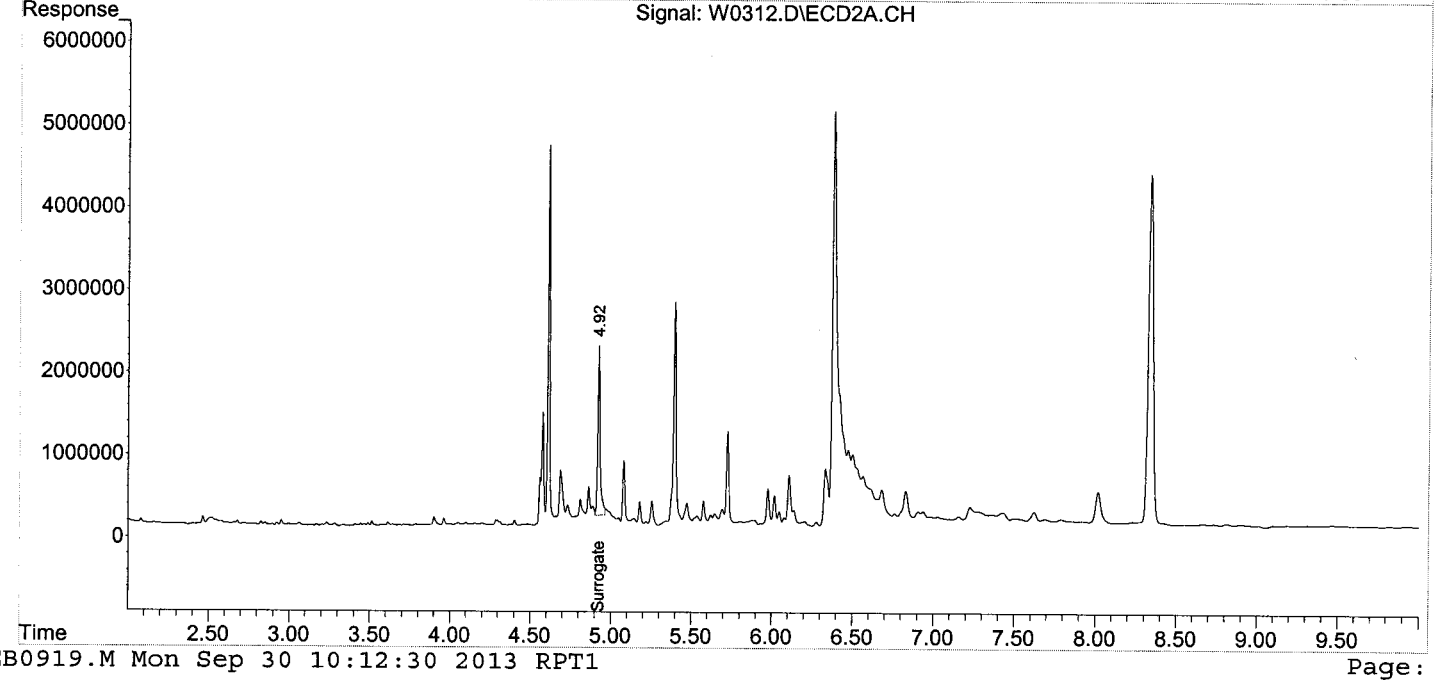
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-27-13\
Data File : W0312.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 27 Sep 2013 9:57
Operator : JS
Sample : AOC-7-2,09198-005,A,800.0ml,100,09/25/13,1
Misc : 130925-14,09/18/13,09/18/13,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 09:32:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-27-13\
Data File : W0313.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 27 Sep 2013 10:11
Operator : JS
Sample : AOC-7-4,09198-006,A,400.0ml,100,09/25/13,1
Misc : 130925-14,09/18/13,09/18/13,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 09:33:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.73	4.92	126.3E6	19645159	63.635	74.197
Spiked Amount 100.000			Recovery	=	63.63%	74.20%
Target Compounds						

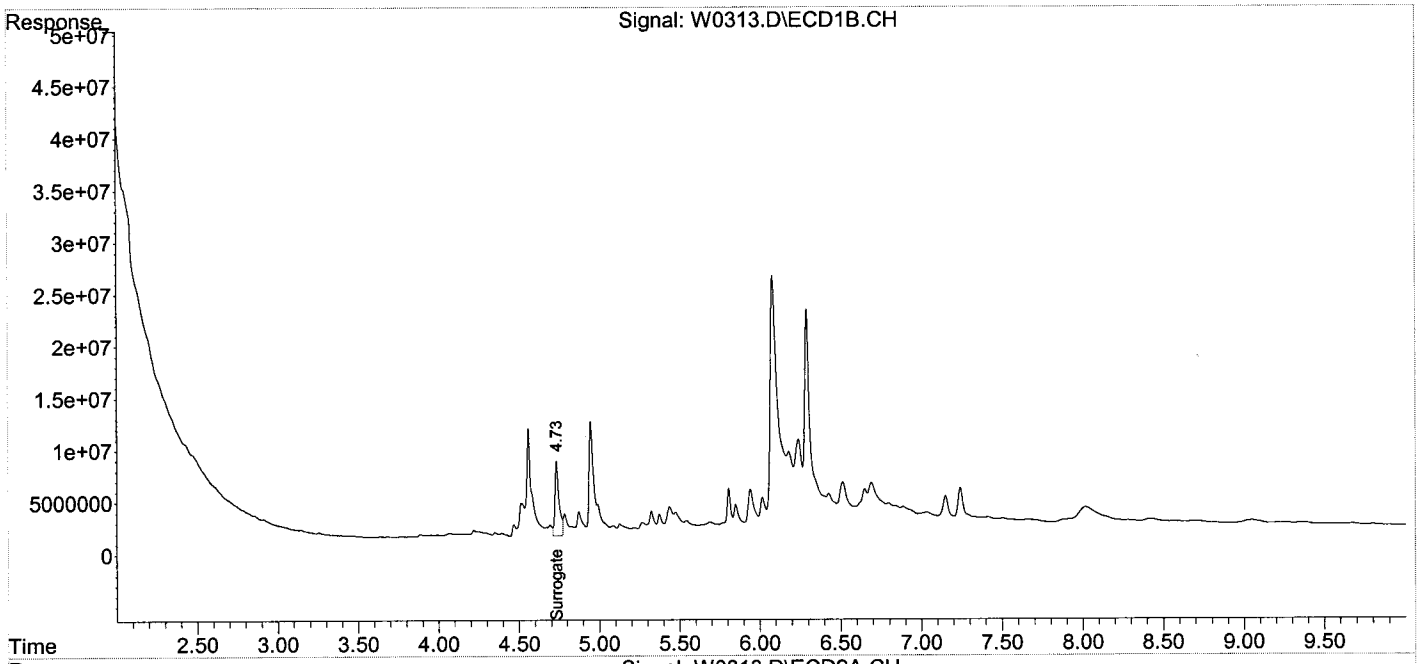
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

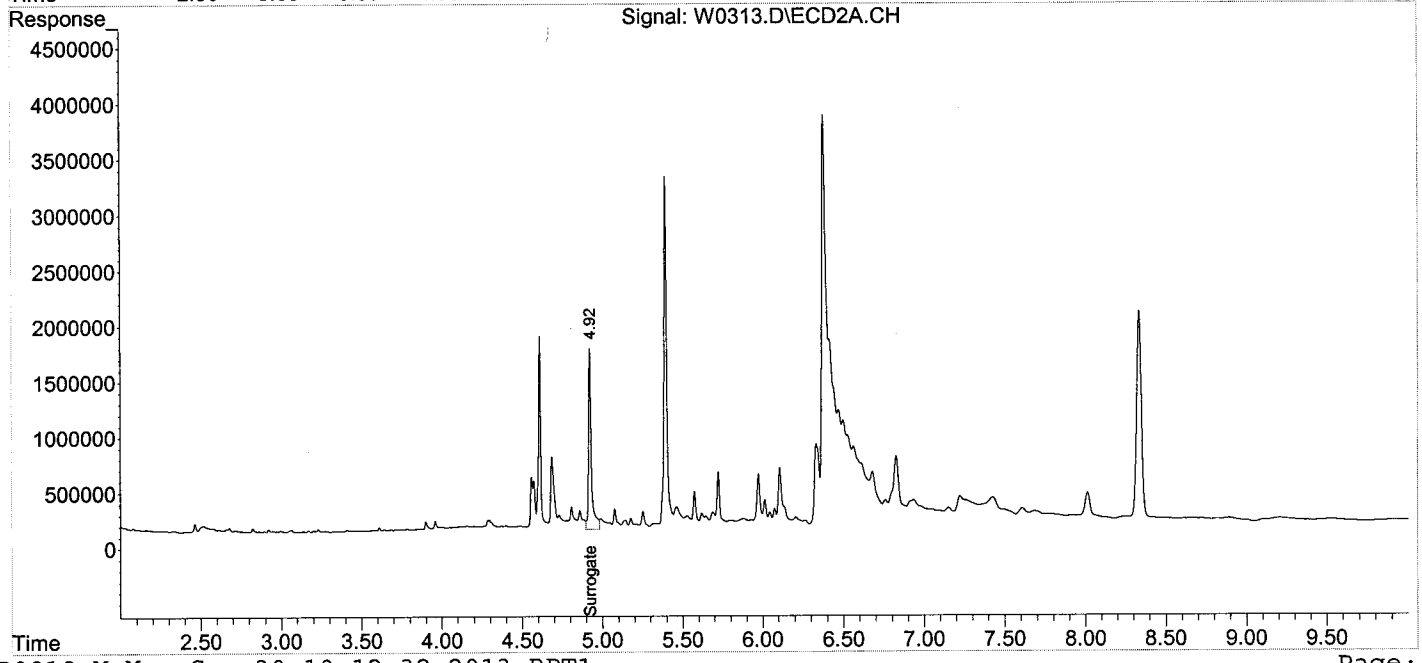
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-27-13\
Data File : W0313.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 27 Sep 2013 10:11
Operator : JS
Sample : AOC-7-4,09198-006,A,400.0ml,100,09/25/13,1
Misc : 130925-14,09/18/13,09/18/13,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 09:33:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKA130925-14
Client ID: Herb
Date Received: NA
Date Extracted: 09/25/2013
Date Analyzed: 09/27/2013
Data file: W0311.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-27-13\
Data File : W0311.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 27 Sep 2013 9:43
Operator : JS
Sample : Herb,BLKA130925-14,A,1000ml,100,09/25/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 09:31:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.74	4.93	171.5E6	24050139	86.452	90.834
Spiked Amount	100.000			Recovery	=	86.45%	90.83%
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

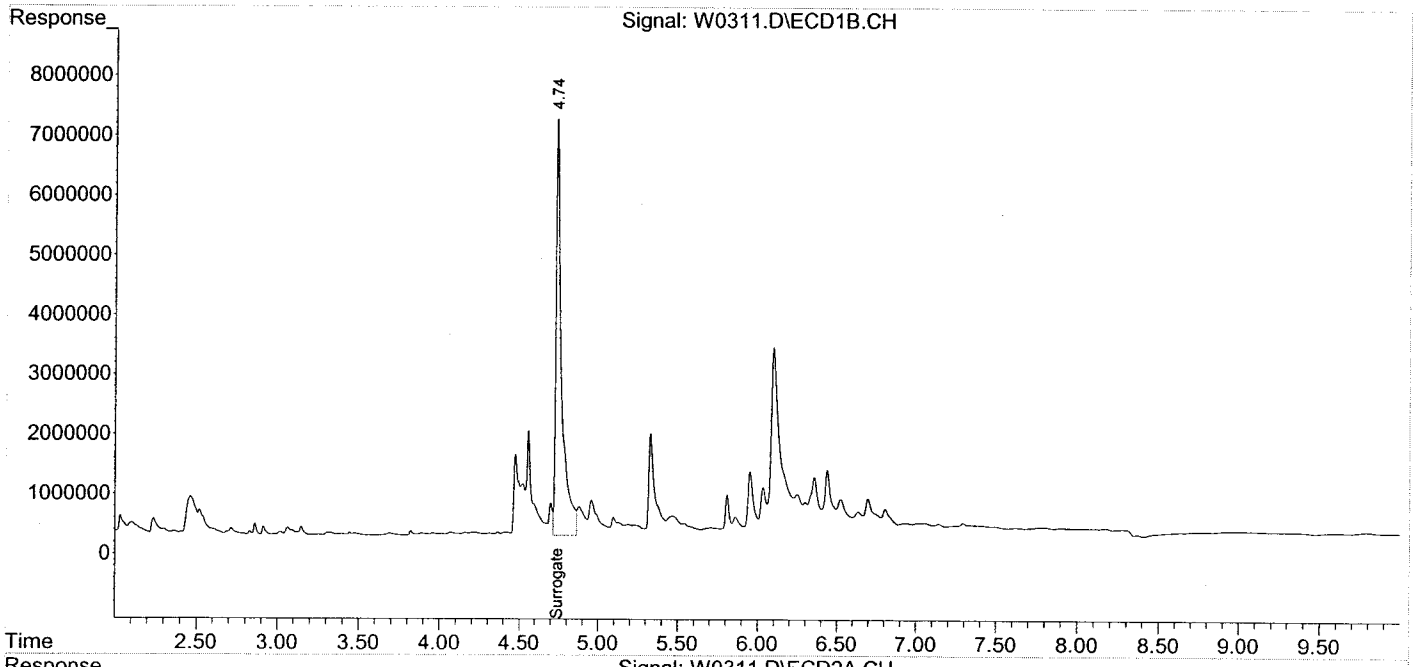
E13-09198 0375

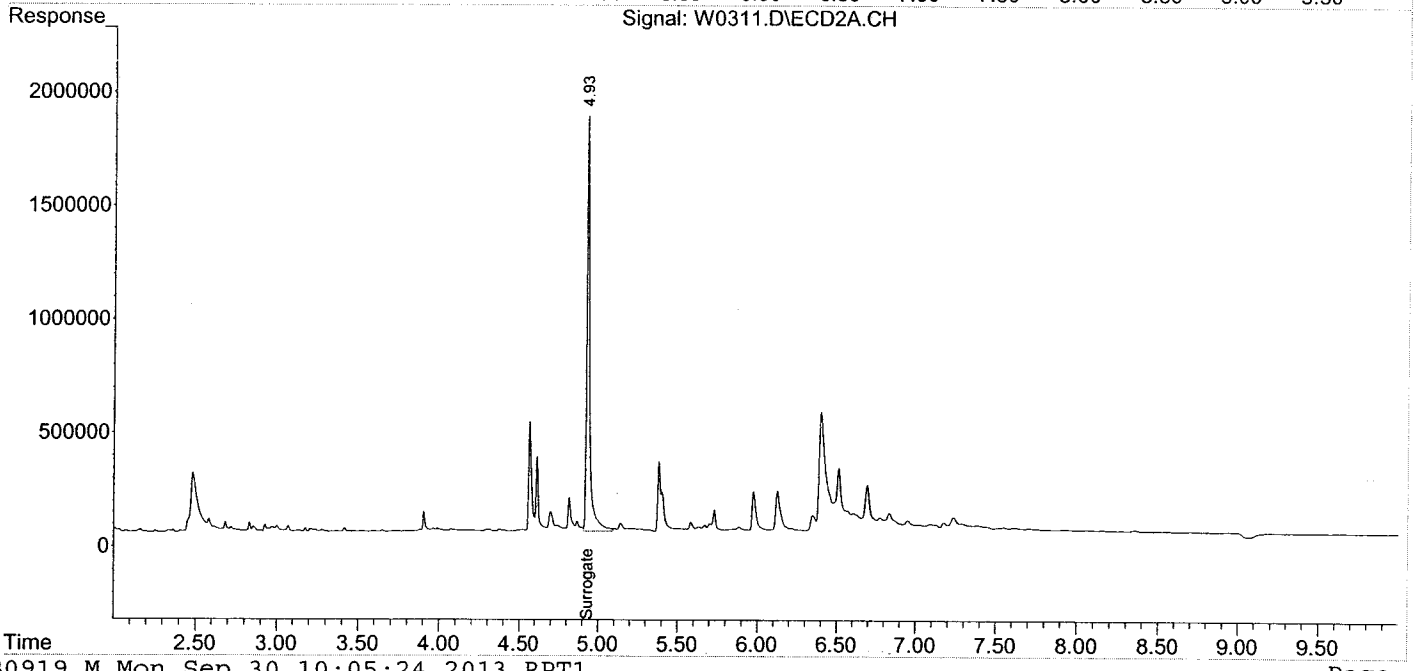
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-27-13\
Data File : W0311.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 27 Sep 2013 9:43
Operator : JS
Sample : Herb,BLKA130925-14,A,1000ml,100,09/25/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 09:31:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Thu Sep 19 11:55:57 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKS130926-05
Client ID: Herb
Date Received: NA
Date Extracted: 09/26/2013
Date Analyzed: 09/30/2013
Data file: W0323.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.00835	0.00334
Dicamba	ND		0.00835	0.00334
2,4-D	ND		0.00835	0.00334
2,4,5-TP (Silvex)	ND		0.00835	0.00334
2,4,5-T	ND		0.00835	0.00334
2,4-DB	ND		0.00835	0.00334
Dinoseb	ND		0.00835	0.00334

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0323.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 9:43
Operator : JS
Sample : Herb,BLKS130926-05,S,30.00g,0,09/26/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 11:00:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	Surrogate	4.74	4.93	169.9E6	22571957	85.623	85.251
Spiked Amount	100.000			Recovery	=	85.62%	85.25%
	Target Compounds						

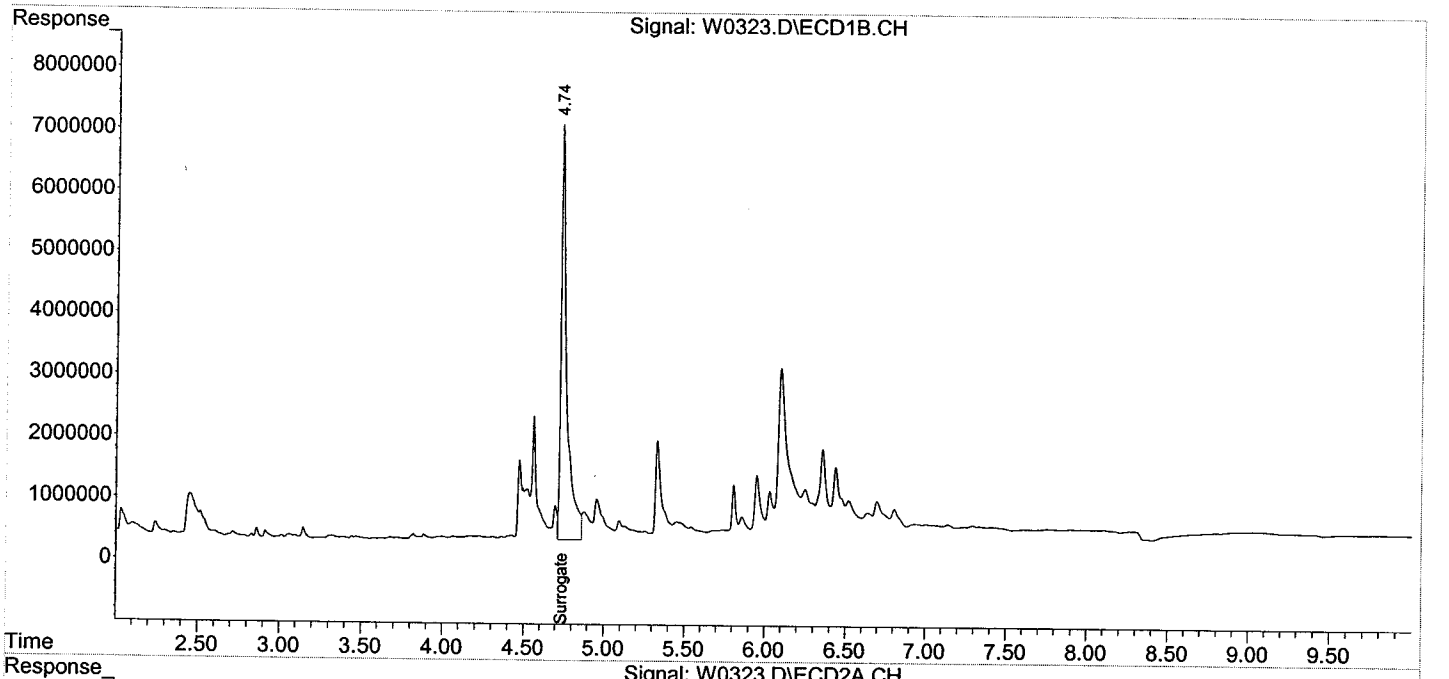
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

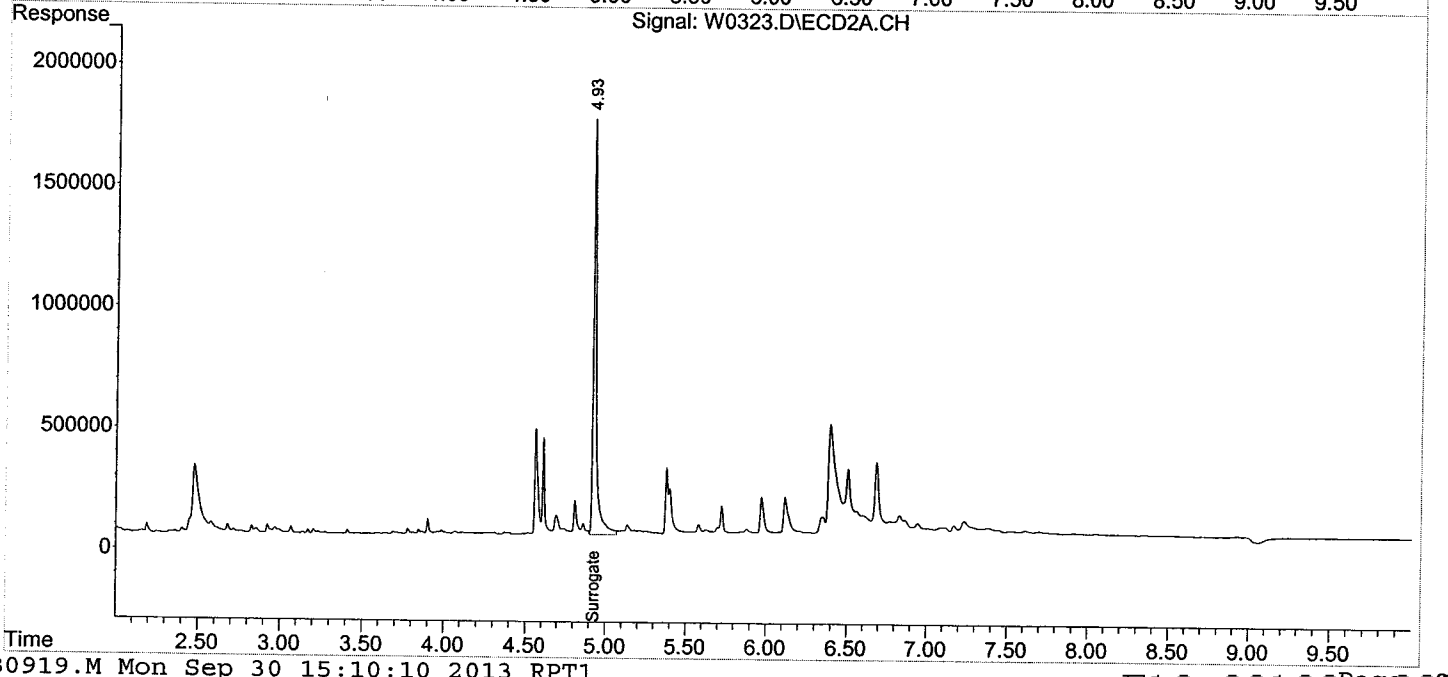
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-30-13\
Data File : W0323.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 30 Sep 2013 9:43
Operator : JS
Sample : Herb,BLKS130926-05,S,30.00g,0,09/26/13,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 30 11:00:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0919.M
Quant Title :
QLast Update : Mon Sep 30 10:59:38 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





GC FINGERPRINT

GC FINGERPRINT SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA_2\09-25-13\
Data File : QB9275.D
Signal(s) : FID2B.ch
Acq On : 25 Sep 13 4:30 pm
Operator : JN
Sample : AOC-7-4,09198-006,A,1000ml,100,09/20/13,1
Misc : 130920-05,09/18/13,09/18/13,1
ALS Vial : 84 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 25 17:27:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\QBDR0904.M
Quant Title :
QLast Update : Thu Sep 05 10:27:49 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.848	103749883	92.186 ng m
Spiked Amount 100.000		Recovery =	92.19%
Target Compounds			

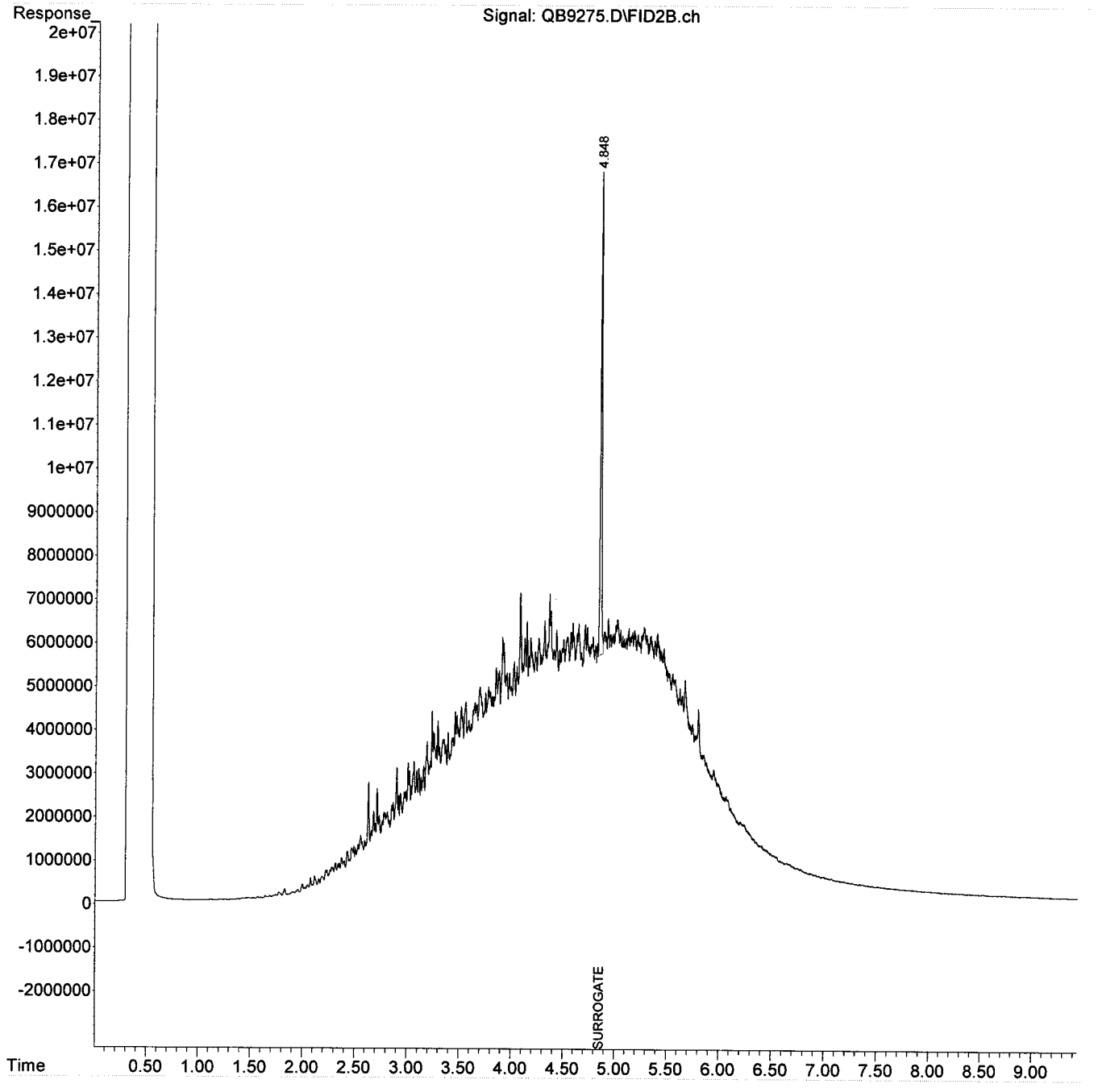
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA_2\09-25-13\
Data File : QB9275.D
Signal(s) : FID2B.ch
Acq On : 25 Sep 13 4:30 pm
Operator : JN
Sample : AOC-7-4,09198-006,A,1000ml,100,09/20/13,1
Misc : 130920-05,09/18/13,09/18/13,1
ALS Vial : 84 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 25 17:27:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\QBDR0904.M
Quant Title :
QLast Update : Thu Sep 05 10:27:49 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA_2\09-25-13\
Data File : QB9271.D
Signal(s) : FID2B.ch
Acq On : 25 Sep 13 3:34 pm
Operator : JN
Sample : DRO/GRO_C_IAS_4737,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 25 16:05:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\QBDR0904.M
Quant Title :
QLast Update : Thu Sep 05 10:27:49 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.844	151394700	134.520 ng m
Spiked Amount 100.000		Recovery = 134.52%	
Target Compounds			
3) H TPH-DRO	3.300	687486418	1039.010 ng

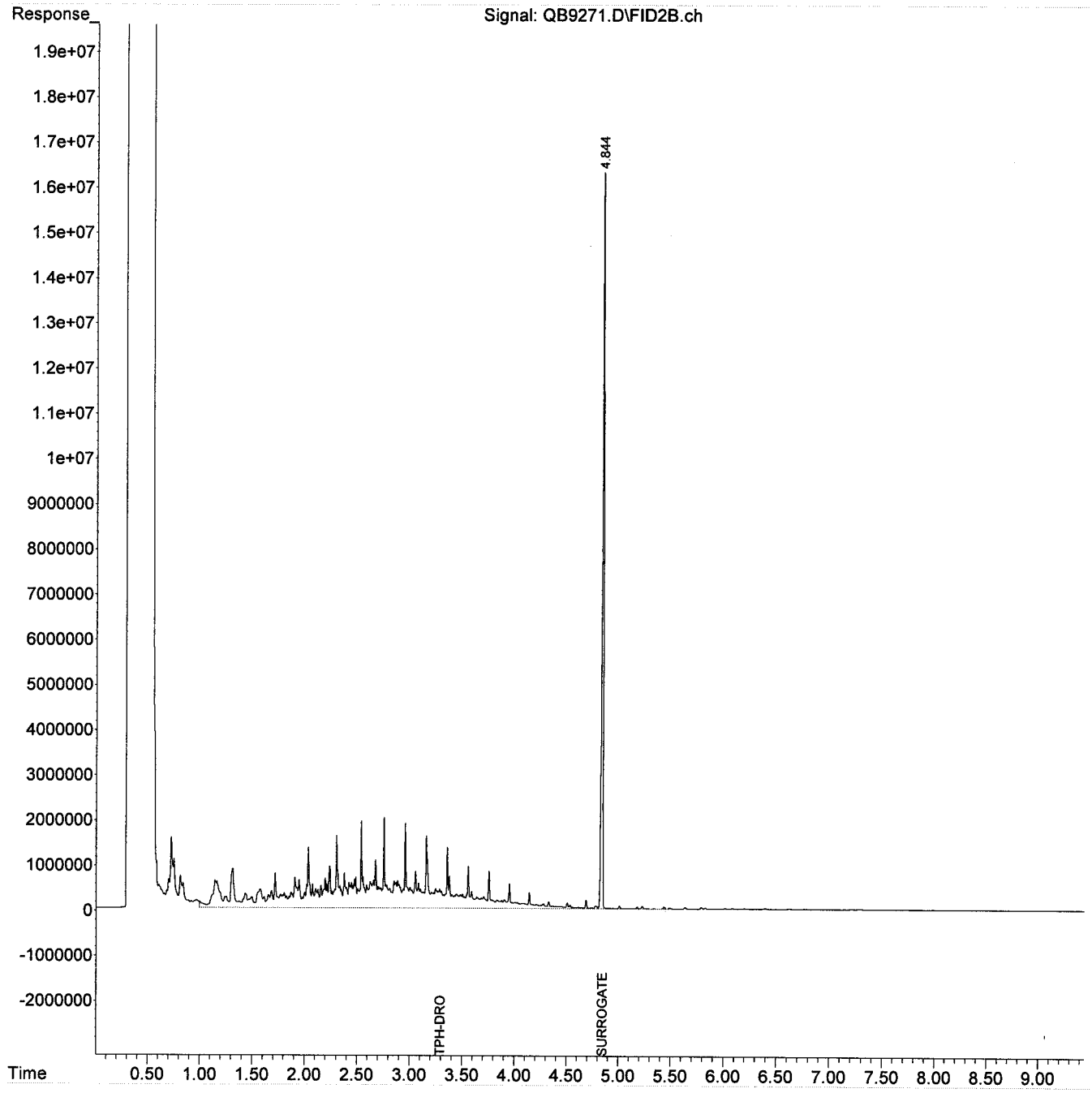
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA_2\09-25-13\
Data File : QB9271.D
Signal(s) : FID2B.ch
Acq On : 25 Sep 13 3:34 pm
Operator : JN
Sample : DRO/GRO_C_IAS_4737,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 25 16:05:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\QBDR0904.M
Quant Title :
QLast Update : Thu Sep 05 10:27:49 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON

EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH-C40 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2013

Client ID	Lab Sample ID	Matrix	COD % rec	#	OTP % rec	#
NJ-EPH-C	BLKS130919-06	SOIL	74		75	
NJ-EPH-C	LCSS130919-06	SOIL	90		93	
NJ-EPH-C	LCSDS130919-06	SOIL	89		91	
AOC-2-1/	09135-001	SOIL	68		74	
AOC-2-2/	09135-002	SOIL	56		56	
AOC-2-3/	09135-003	SOIL	69		87	
C-1_WARE	09196-001	SOLID	66		76	
AOC-8/12	09197-007	SOIL	65		69	
AOC-12-1	09197-008	SOIL	74		81	
AOC-12-2	09197-009	SOIL	53		61	
AOC-12-3	09198-003	SOIL	80		86	
AOC-12-4	09198-004	SOIL	80		86	
AOC-12-4	09198-4D	SOIL	81		88	
NJ-EPH-C	09198-004MS	SOIL	76		78	
AOC-4/7.	09135-005	SOIL	63		67	
AOC-7-1/	09197-003	SOIL	66		72	
AOC-6/18	09197-010	SOIL	54		57	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS130919-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0809.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	100	0.00	36	36	35	35	3
n-Decane (C10)	100	0.00	55	55	55	55	0
n-Dodecane (C12)	100	0.00	72	72	71	71	1
n-Tetradecane (C14)	100	0.00	80	80	78	78	3
n-Hexadecane (C16)	100	0.00	88	88	87	87	1
n-Octadecane (C18)	100	0.00	117	117	117	117	0
n-Eicosane (C20)	100	0.00	92	92	91	91	1
n-Heneicosane (C21)	100	0.00	112	112	115	115	3
n-Docosane (C22)	100	0.00	98	98	96	96	2
n-Tetracosane (C24)	100	0.00	92	92	90	90	2
n-Hexacosane (C26)	100	0.00	94	94	93	93	1
n-Octacosane (C28)	100	0.00	96	96	88	88	9
n-Triacontane (C30)	100	0.00	92	92	91	91	1
n-Dotriacontane (C32)	100	0.00	87	87	86	86	1
n-Tetratriacontane (C34)	100	0.00	86	86	84	84	2
n-Hexatriacontane (C36)	100	0.00	70	70	68	68	3
n-Octatriacontane (C38)	100	0.00	61	61	59	59	3
n-Tetracontane (C40)	100	0.00	58	58	56	56	4
C9-C40*	3600	0.00	3202	89	3157	88	1

*Includes Aromatic Compounds

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09198-004MS
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/24/2013
Data file: Z0823.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.6

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS
n-Nonane (C9)	100	0.00	32	32
n-Decane (C10)	100	0.00	48	48
n-Dodecane (C12)	100	0.00	60	60
n-Tetradecane (C14)	100	0.00	66	66
n-Hexadecane (C16)	100	0.00	72	72
n-Octadecane (C18)	100	0.00	92	92
n-Eicosane (C20)	100	0.00	76	76
n-Heneicosane (C21)	100	0.00	94	94
n-Docosane (C22)	100	0.00	80	80
n-Tetracosane (C24)	100	0.00	74	74
n-Hexacosane (C26)	100	0.00	76	76
n-Octacosane (C28)	100	0.00	76	76
n-Triacontane (C30)	100	0.00	74	74
n-Dotriacontane (C32)	100	0.00	71	71
n-Tetratriacontane (C34)	100	0.00	72	72
n-Hexatriacontane (C36)	100	0.00	60	60
n-Octatriacontane (C38)	100	0.00	49	49
n-Tetracontane (C40)	100	0.00	46	46
C9-C40*	3600	264.26	2700	68

*Includes Aromatic Compounds

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: AOC-12-4
Date Received: 09/18/2013
Date Extracted: 09/19/2013
Lab ID: 09198-004
Sample wt/vol: 10.0g
Date Analyzed: 09/24/2013
Aliphatics Sample Data file: Z0821.D
Dilution Factor: 1

GC Column: RTX-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 19.6
Lab ID: 09198-4D
Sample wt/vol: 10.0g
Date Analyzed: 09/24/2013
Aliphatics Sample Dup Data file: Z0822.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C40	32.9	33.6	2

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NC Not calculable

NJ-EPH-C40 METHOD BLANK SUMMARY

Lab File ID: Z0807.D

Instrument ID: GC-Z

Date Extracted: 09/19/2013

Matrix: SOIL

Date Analyzed: 09/23/2013

Time Analyzed: 23:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
NJ-EPH-C	LCSS130919-06	09/23/2013	23:43
NJ-EPH-C	LCSDS130919-06	09/24/2013	00:05
AOC-2-1/	09135-001	09/24/2013	00:28
AOC-2-2/	09135-002	09/24/2013	00:50
AOC-2-3/	09135-003	09/24/2013	01:12
C-1_WARE	09196-001	09/24/2013	01:57
AOC-8/12	09197-007	09/24/2013	02:41
AOC-12-1	09197-008	09/24/2013	03:03
AOC-12-2	09197-009	09/24/2013	03:25
AOC-12-3	09198-003	09/24/2013	04:09
AOC-12-4	09198-004	09/24/2013	04:31
AOC-12-4	09198-4D	09/24/2013	04:54
NJ-EPH-C	09198-004MS	09/24/2013	05:16
AOC-4/7.	09135-005	09/24/2013	10:37
AOC-7-1/	09197-003	09/24/2013	10:59
AOC-6/18	09197-010	09/24/2013	11:22

NJ-EPH-C40 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Z **Column:** RTX-5

Surrogate RT from initial calibration :

COD 8.10 **OTP** 6.40

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#	OTP RT	#
NJ-EPH-C	BLKS130919-06	09/23/2013	23:21	8.10		6.40	
NJ-EPH-C	LCSS130919-06	09/23/2013	23:43	8.09		6.39	
NJ-EPH-C	LCSDS130919-06	09/24/2013	00:05	8.09		6.39	
AOC-2-1/	09135-001	09/24/2013	00:28	8.10		6.40	
AOC-2-2/	09135-002	09/24/2013	00:50	8.11		6.40	
AOC-2-3/	09135-003	09/24/2013	01:12	8.09		6.39	
C-1_WARE	09196-001	09/24/2013	01:57	8.09		6.39	
AOC-8/12	09197-007	09/24/2013	02:41	8.10		6.40	
AOC-12-1	09197-008	09/24/2013	03:03	8.09		6.39	
AOC-12-2	09197-009	09/24/2013	03:25	8.09		6.39	
AOC-12-3	09198-003	09/24/2013	04:09	8.09		6.39	
AOC-12-4	09198-004	09/24/2013	04:31	8.09		6.39	
AOC-12-4	09198-4D	09/24/2013	04:54	8.09		6.39	
NJ-EPH-C	09198-004MS	09/24/2013	05:16	8.09		6.39	
AOC-4/7.	09135-005	09/24/2013	10:37	8.10		6.40	
AOC-7-1/	09197-003	09/24/2013	10:59	8.09		6.40	
AOC-6/18	09197-010	09/24/2013	11:22	8.10		6.40	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0820.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:09
Operator : WP
Sample : AOC-12-3,09198-003,S,10.04g,19.9,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 33 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:07:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	11899534	79.947 ng
Spiked Amount 100.000		Recovery =	79.95%
23) S o-Terphenyl	6.39	23968887	85.866 ng
Spiked Amount 100.000		Recovery =	85.87%
Target Compounds			
22) H C9-C40	6.84	74735628	245.791 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

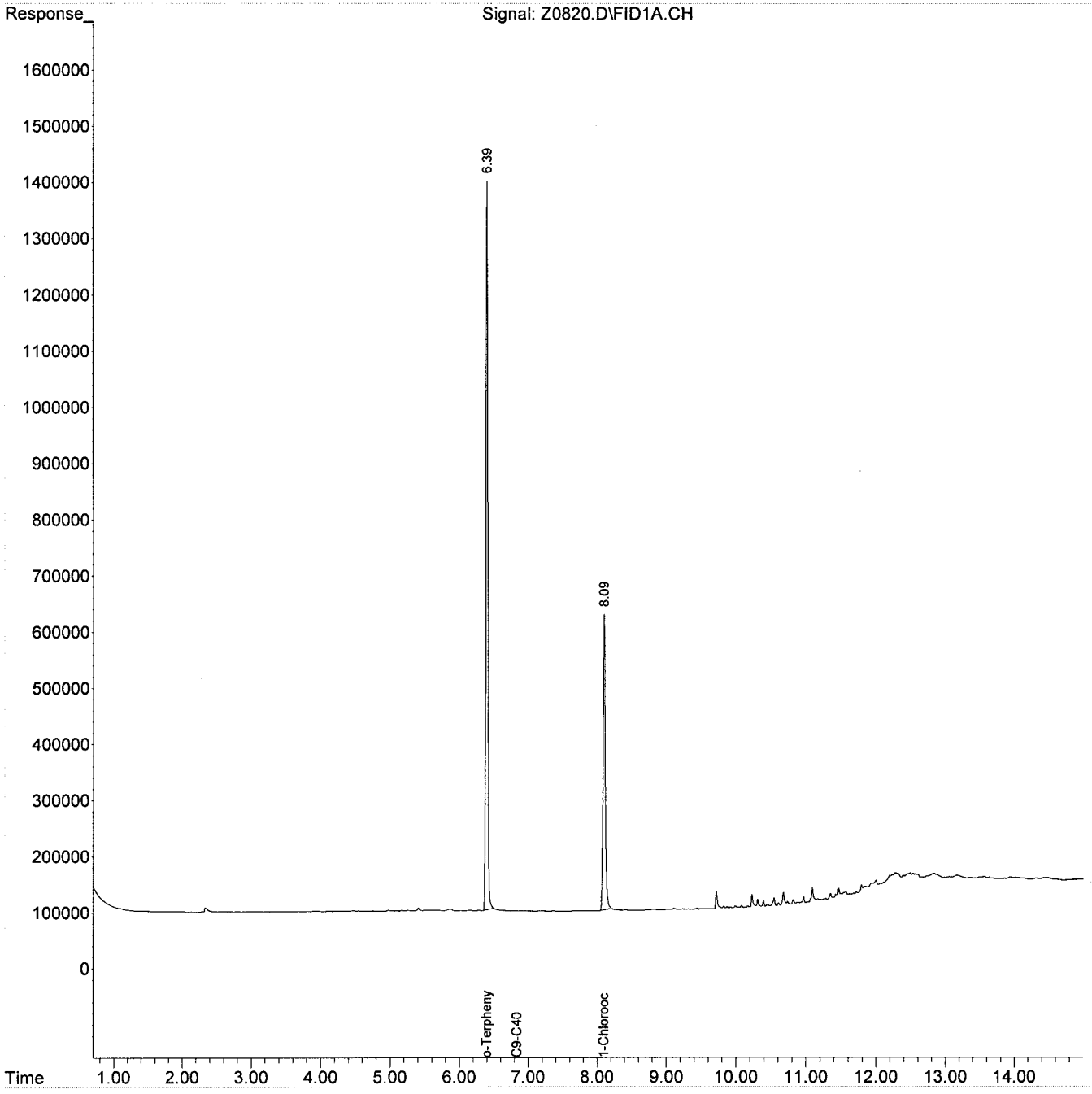
E13-09198 0395

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0820.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:09
Operator : WP
Sample : AOC-12-3,09198-003,S,10.04g,19.9,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 33 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:07:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	11875881	79.788 ng
Spiked Amount 100.000		Recovery =	79.79%
23) S o-Terphenyl	6.39	23982725	85.915 ng
Spiked Amount 100.000		Recovery =	85.92%
Target Compounds			
22) H C9-C40	6.84	80350863	264.259 ng

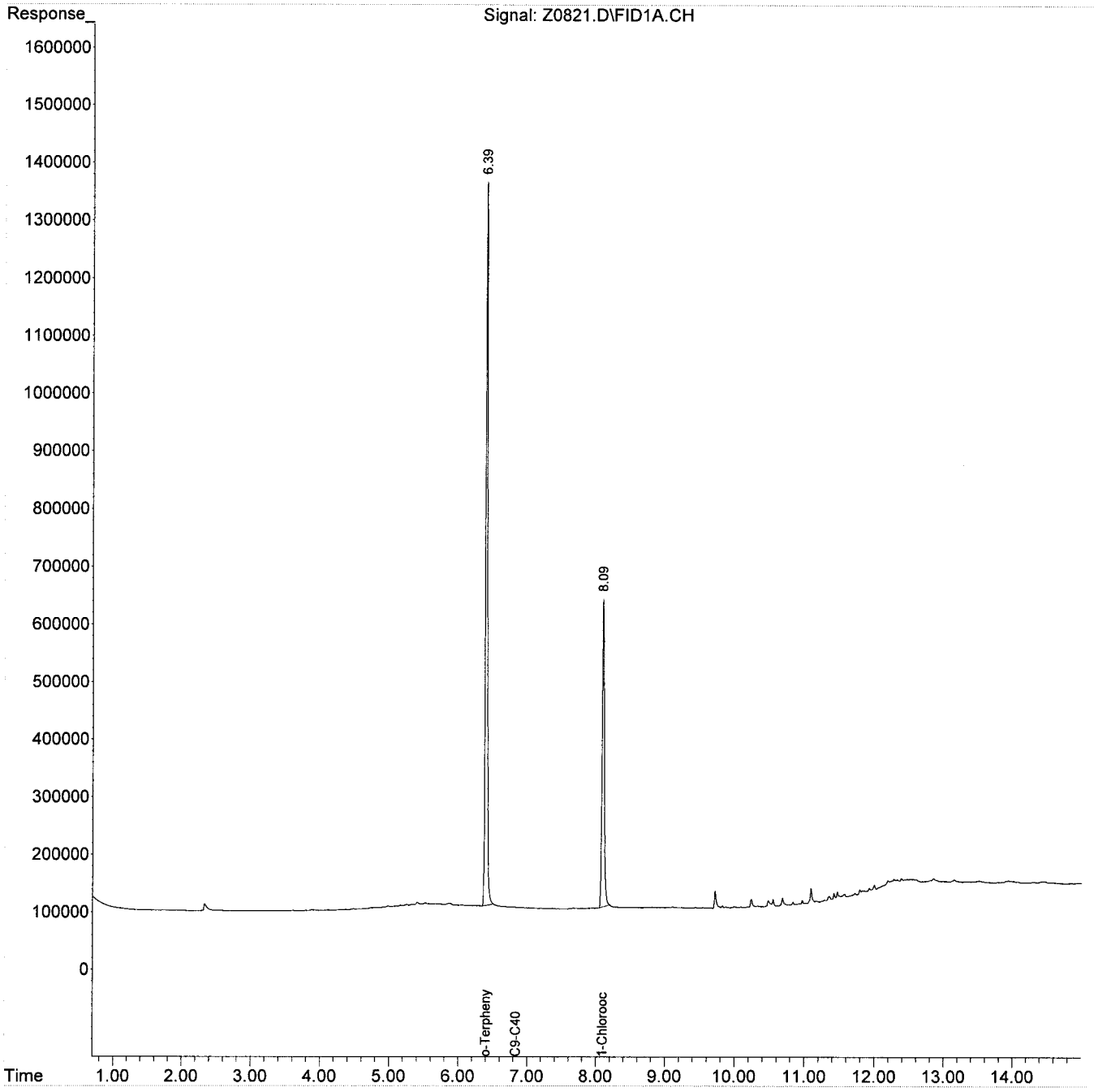
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09198 0398

EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2013

Instrument ID: GC-Z

GC Column : RTX-5

Data File: Z0620.D Z0619.D Z0618.D Z0617.D Z0616.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	0.86	0.85	0.85	0.85	0.86	0.85	0.77	0.92
n-Decane (C10)	1.48	1.48	1.48	1.48	1.49	1.48	1.40	1.55
n-Dodecane (C12)	2.86	2.86	2.86	2.86	2.87	2.86	2.78	2.93
n-Tetradecane (C14)	3.99	3.98	3.98	3.99	4.00	3.99	3.91	4.06
n-Hexadecane (C16)	4.95	4.95	4.95	4.95	4.96	4.95	4.87	5.03
n-Octadecane (C18)	5.85	5.84	5.85	5.86	5.87	5.85	5.77	5.93
n-Eicosane (C20)	7.37	7.37	7.38	7.40	7.44	7.39	7.31	7.47
n-Heneicosane (C21)	8.20	8.21	8.21	8.23	8.25	8.22	8.14	8.30
n-Docosane (C22)	8.72	8.72	8.72	8.73	8.75	8.73	8.64	8.82
n-Tetracosane (C24)	9.44	9.44	9.44	9.45	9.46	9.44	9.35	9.53
n-Hexacosane (C26)	9.99	9.99	9.99	10.00	10.01	9.99	9.90	10.08
n_Octacosane (C28)	10.45	10.46	10.46	10.47	10.48	10.46	10.37	10.55
n-Triacontane (C30)	10.87	10.88	10.88	10.89	10.90	10.88	10.78	10.98
n-Dotriacontane (C32)	11.26	11.26	11.27	11.28	11.29	11.27	11.17	11.37
n-Tetratriacontane (C34)	11.62	11.62	11.63	11.64	11.65	11.63	11.53	11.73
n-Hexatriacontane (C36)	11.96	11.96	11.97	11.98	11.99	11.97	11.82	12.12
n-Octatriacontane (C38)	12.28	12.28	12.29	12.30	12.31	12.29	12.14	12.44
n-Tetracontane (C40)	12.63	12.63	12.64	12.65	12.66	12.64	12.49	12.79
C9-C28	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
C28-C40	11.88	11.88	11.88	11.88	11.88	11.88	11.78	11.98
C9-C40	6.84	6.84	6.84	6.84	6.84	6.84	6.73	6.95

NJ-EPH-DRO INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2013 **Instrument ID:** GC-Z
GC Column : RTX-5

Data File: Z0620.D Z0619.D Z0618.D Z0617.D Z0616.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	20	100	250	500	1000		
n-Nonane (C9)	283469	245781	222628	213600	217524	236600	12.27
n-Decane (C10)	284948	250794	228937	219888	228292	242572	10.84
n-Dodecane (C12)	283254	254479	235619	228350	239954	248331	8.75
n-Tetradecane (C14)	292958	262233	244940	238899	250465	257899	8.30
n-Hexadecane (C16)	302525	271076	253476	247523	258100	266540	8.22
n-Octadecane (C18)	312599	278729	259633	254502	262169	273526	8.65
n-Eicosane (C20)	317842	283764	259515	260050	257329	275700	9.40
n-Heneicosane (C21)	315116	271746	241001	233058	244199	261024	12.86
n-Docosane (C22)	329225	295970	273388	265763	268724	286614	9.29
n-Tetracosane (C24)	328859	295249	275407	261788	263997	285060	9.77
n-Hexacosane (C26)	328174	288501	273451	258892	259561	281716	10.17
n_Octacosane (C28)	330600	291048	275549	256309	257315	282164	10.86
n-Triacontane (C30)	338690	294816	279665	255849	257557	285316	11.90
n-Dotriacontane (C32)	333280	291183	274861	249976	253652	280590	12.06
n-Tetratriacontane (C34)	320479	277464	264881	240627	246381	269967	11.79
n-Hexatriacontane (C36)	314407	271459	260404	237421	245147	265768	11.38
n-Octatriacontane (C38)	297370	257792	248667	228759	237574	254032	10.47
n-Tetracontane (C40)	279614	244758	237511	219258	230211	242270	9.45
C9-C28	4559425	3682120	3250834	3069901	3094548	3531366	17.70
C28-C40	2259469	1761685	1623431	1464425	1493221	1720446	18.81
C9-C40	7417756	5722863	5001746	4603079	4620417	5473172	21.52

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0616.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:07
Operator : WP
Sample : ALI_L5_IAS_4645,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.13	140246830	942.252 ng
Spiked Amount	100.000		Recovery	= 942.25%
23) S	o-Terphenyl	6.45	288610193	1033.913 ng
Spiked Amount	100.000		Recovery	= 1033.91%
	Target Compounds			
2) T	n-Nonane (C9)	0.86	217524124	919.373 ng
3) T	n-Decane (C10)	1.49	228292064	941.132 ng
4) T	n-Dodecane (C12)	2.87	239953574	966.263 ng
5) T	n-Tetradecane (C14)	4.00	250464772	971.174 ng
6) T	n-Hexadecane (C16)	4.96	258099669	968.334 ng
7) T	n-Octadecane (C18)	5.87	262168727	958.477 ng
8) T	n-Eicosane (C20)	7.44	257328521	924.234 ng
9) T	n-Heneicosane (C21)	8.25	244199263	935.544 ng
10) T	n-Docosane (C22)	8.75	268723745	937.580 ng
11) T	n-Tetracosane (C24)	9.46	263997388	926.112 ng
12) T	n-Hexacosane (C26)	10.01	259560758	921.357 ng
13) T	n-Octacosane (C28)	10.48	257314862	911.933 ng
14) T	n-Triacontane (C30)	10.90	257557472	902.711 ng
15) T	n-Dotriacontane (C32)	11.29	253652207	903.995 ng
16) T	n-Tetratriacontane (C34)	11.65	246381122	912.636 ng
17) T	n-Hexatriacontane (C36)	11.99	245147189	922.412 ng
18) T	n-Octatriacontane (C38)	12.31	237574292	935.212 ng
19) T	n-Tetracontane (C40)	12.66	230210677	950.223 ng
20) H	C9-C28	5.03	3094547500	10515.845 ng
21) H	C28-C40	11.88	1493220787	5207.559 ng
22) H	C9-C40	6.84	4620416589	15195.676 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

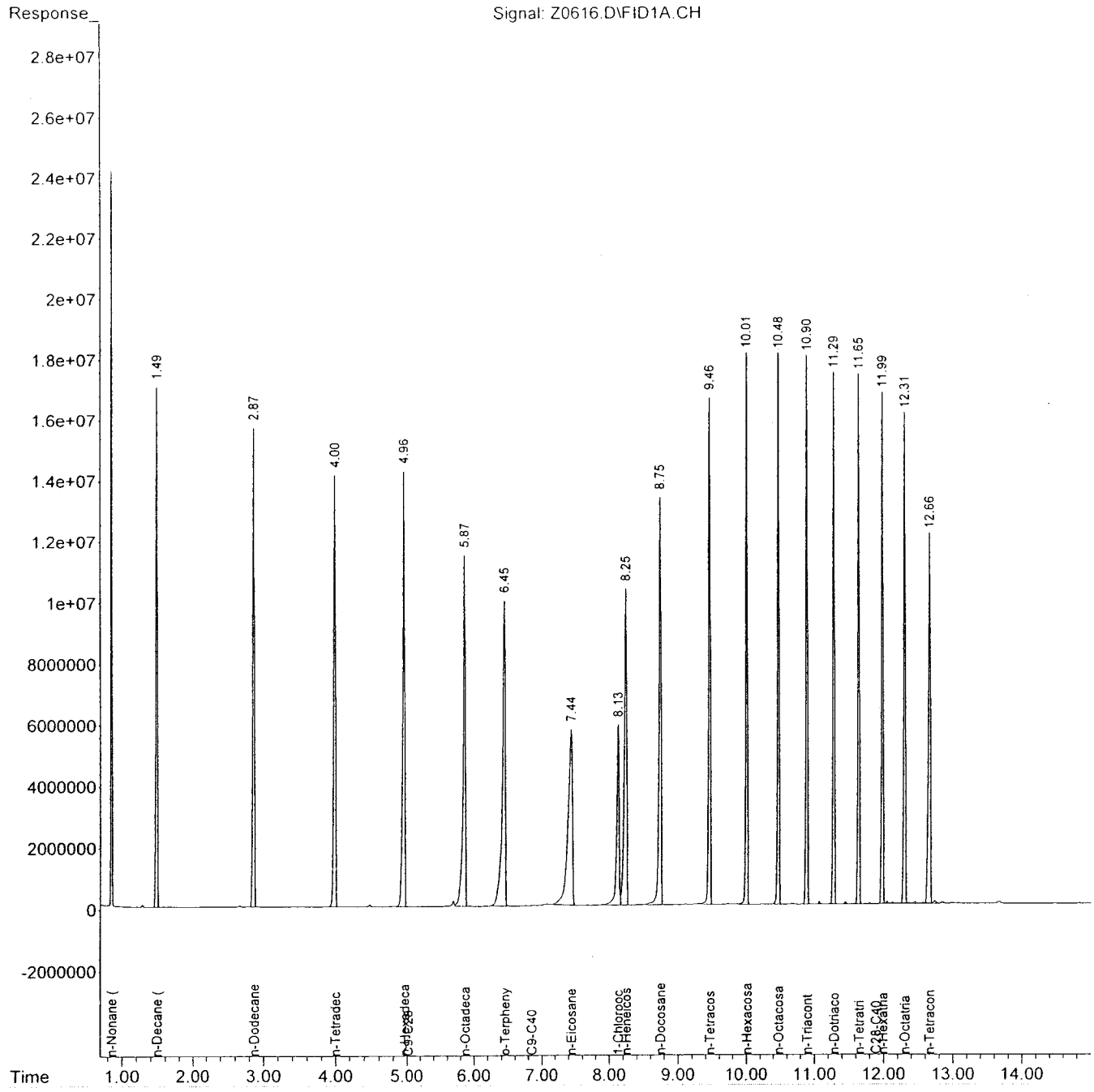
E13-09198

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0616.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:07
Operator : WP
Sample : ALI_L5_IAS_4645,1000_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09198

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0617.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:30
Operator : WP
Sample : ALI_L4_IAS_4646,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
1)	S	1-Chlorooctadecane	8.12	72120252	484.542 ng
Spiked Amount		100.000		Recovery =	484.54%
23)	S	o-Terphenyl	6.43	128882295	461.706 ng
Spiked Amount		100.000		Recovery =	461.71%
Target Compounds					
2)	T	n-Nonane (C9)	0.85	106799947	451.394 ng
3)	T	n-Decane (C10)	1.48	109943930	453.243 ng
4)	T	n-Dodecane (C12)	2.86	114175203	459.769 ng
5)	T	n-Tetradecane (C14)	3.99	119449442	463.164 ng
6)	T	n-Hexadecane (C16)	4.95	123761567	464.327 ng
7)	T	n-Octadecane (C18)	5.86	127251100	465.224 ng
8)	T	n-Eicosane (C20)	7.40	130024951	467.004 ng
9)	T	n-Heneicosane (C21)	8.23	116528751	446.429 ng
10)	T	n-Docosane (C22)	8.73	132881646	463.626 ng
11)	T	n-Tetracosane (C24)	9.45	130893980	459.180 ng
12)	T	n-Hexacosane (C26)	10.00	129446099	459.492 ng
13)	T	n-Octacosane (C28)	10.47	128154299	454.184 ng
14)	T	n-Triacontane (C30)	10.89	127924561	448.361 ng
15)	T	n-Dotriacontane (C32)	11.28	124988026	445.447 ng
16)	T	n-Tetratriacontane (C34)	11.64	120313584	445.661 ng
17)	T	n-Hexatriacontane (C36)	11.98	118710568	446.671 ng
18)	T	n-Octatriacontane (C38)	12.30	114379294	450.255 ng
19)	T	n-Tetracontane (C40)	12.65	109628760	452.506 ng
20)	H	C9-C28	5.03	1534950577	5216.046 ng
21)	H	C28-C40	11.88	732212543	2553.568 ng
22)	H	C9-C40	6.84	2301539361	7569.327 ng

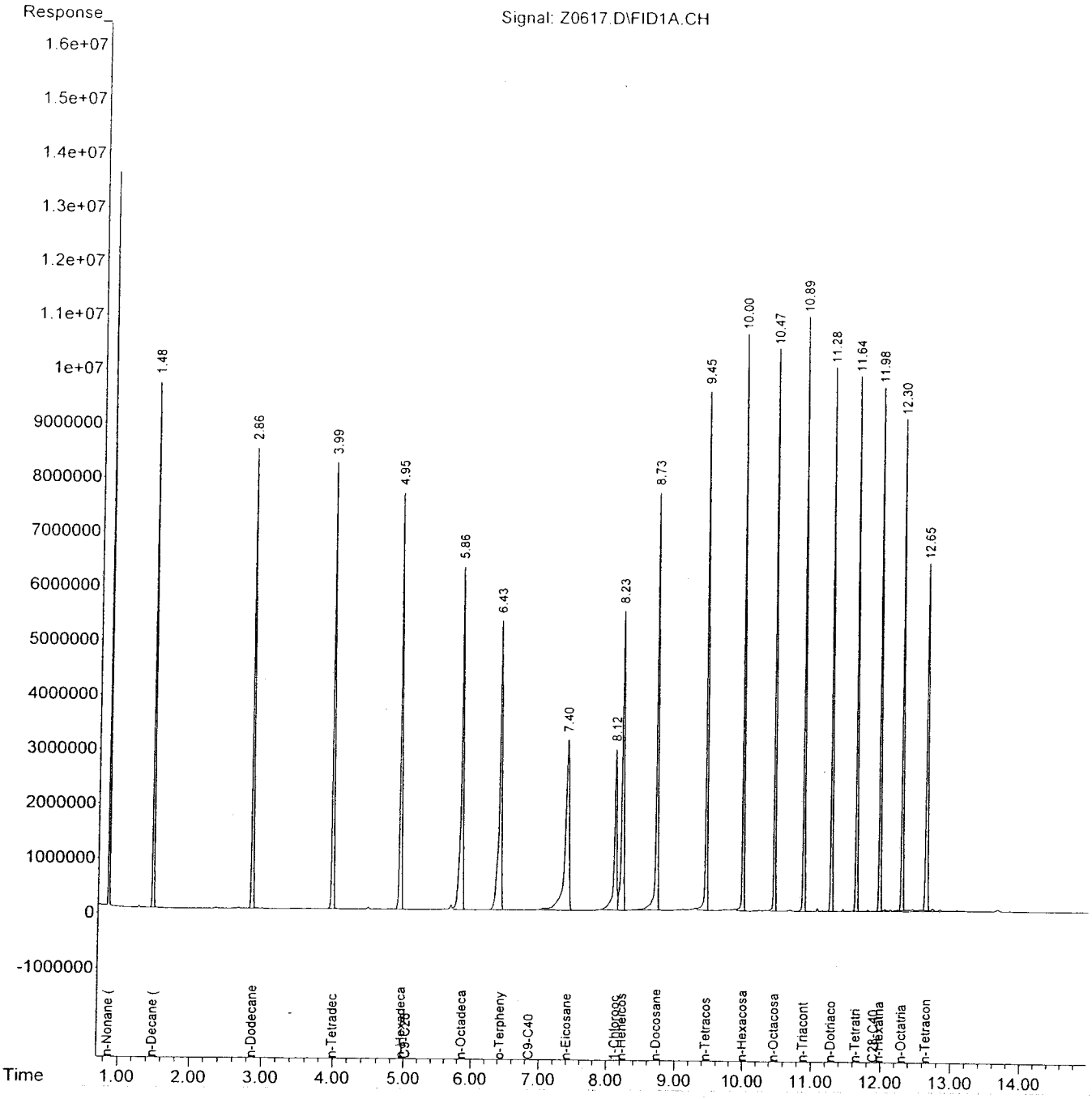
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0617.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:30
Operator : WP
Sample : ALI_L4_IAS_4646,500_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0618.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:52
Operator : WP
Sample : ALI_L3_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	8.11	37332331	250.818 ng
Spiked Amount	100.000		Recovery =	250.82%
23)	S o-Terphenyl	6.42	65723796	235.448 ng
Spiked Amount	100.000		Recovery =	235.45%
	Target Compounds			
2)	T n-Nonane (C9)	0.85	55657073	235.237 ng
3)	T n-Decane (C10)	1.48	57234368	235.948 ng
4)	T n-Dodecane (C12)	2.86	58904859	237.203 ng
5)	T n-Tetradecane (C14)	3.98	61235033	237.438 ng
6)	T n-Hexadecane (C16)	4.95	63368933	237.747 ng
7)	T n-Octadecane (C18)	5.85	64908178	237.301 ng
8)	T n-Eicosane (C20)	7.38	64878839	233.022 ng
9)	T n-Heneicosane (C21)	8.21	60250132	230.822 ng
10)	T n-Docosane (C22)	8.72	68347013	238.464 ng
11)	T n-Tetracosane (C24)	9.44	68851793	241.534 ng
12)	T n-Hexacosane (C26)	9.99	68362768	242.666 ng
13)	T n-Octacosane (C28)	10.46	68887137	244.139 ng
14)	T n-Triacontane (C30)	10.88	69916366	245.049 ng
15)	T n-Dotriacontane (C32)	11.27	68715199	244.895 ng
16)	T n-Tetratriacontane (C34)	11.63	66220355	245.291 ng
17)	T n-Hexatriacontane (C36)	11.97	65100953	244.954 ng
18)	T n-Octatriacontane (C38)	12.29	62166859	244.720 ng
19)	T n-Tetracontane (C40)	12.64	59377647	245.089 ng
20)	H C9-C28	5.03	812708611	2761.734 ng
21)	H C28-C40	11.88	405857748	1415.416 ng
22)	H C9-C40	6.84	1250436473	4112.449 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

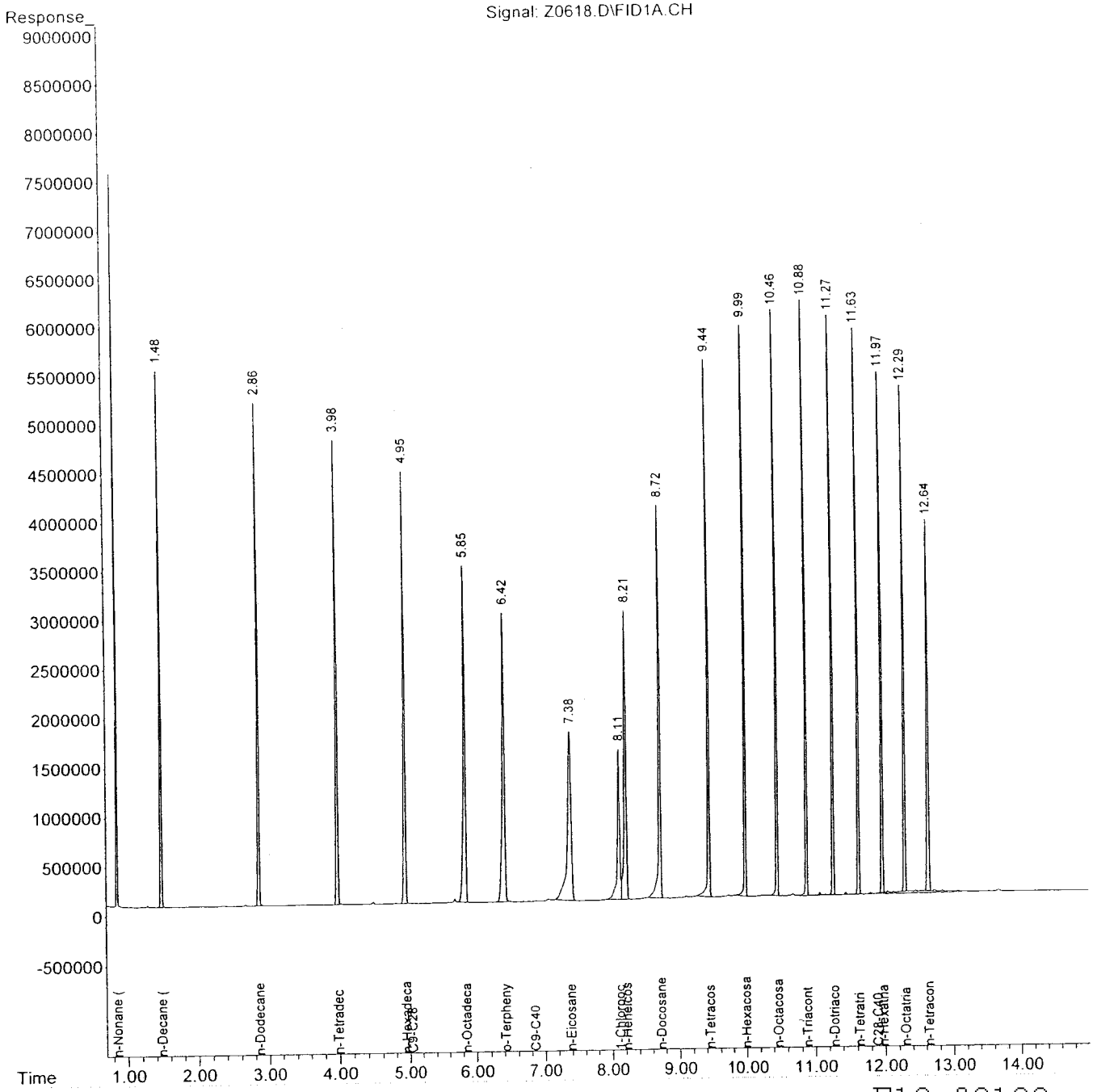
E13-09198

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0618.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 12:52
Operator : WP
Sample : ALI_L3_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0619.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 13:15
Operator : WP
Sample : ALI_L2_IAS_4648,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.11	15179352	101.983 ng
Spiked Amount	100.000		Recovery =	101.98%
23) S	o-Terphenyl	6.41	28154333	100.860 ng
Spiked Amount	100.000		Recovery =	100.86%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	24578125	103.880 ng
3) T	n-Decane (C10)	1.48	25079424	103.390 ng
4) T	n-Dodecane (C12)	2.86	25447939	102.476 ng
5) T	n-Tetradecane (C14)	3.98	26223292	101.680 ng
6) T	n-Hexadecane (C16)	4.95	27107634	101.702 ng
7) T	n-Octadecane (C18)	5.84	27872933	101.902 ng
8) T	n-Eicosane (C20)	7.37	28376356	101.918 ng
9) T	n-Heneicosane (C21)	8.21	27174616	104.108 ng
10) T	n-Docosane (C22)	8.72	29597040	103.264 ng
11) T	n-Tetracosane (C24)	9.44	29524871	103.574 ng
12) T	n-Hexacosane (C26)	9.99	28850055	102.408 ng
13) T	n-Octacosane (C28)	10.46	29104843	103.149 ng
14) T	n-Triacontane (C30)	10.88	29481620	103.330 ng
15) T	n-Dotriacontane (C32)	11.26	29118262	103.775 ng
16) T	n-Tetratriacontane (C34)	11.62	27746423	102.777 ng
17) T	n-Hexatriacontane (C36)	11.96	27145869	102.141 ng
18) T	n-Octatriacontane (C38)	12.28	25779166	101.480 ng
19) T	n-Tetracontane (C40)	12.63	24475792	101.027 ng
20) H	C9-C28	5.03	368211963	1251.252 ng
21) H	C28-C40	11.88	176168467	614.382 ng
22) H	C9-C40	6.84	572286286	1882.141 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

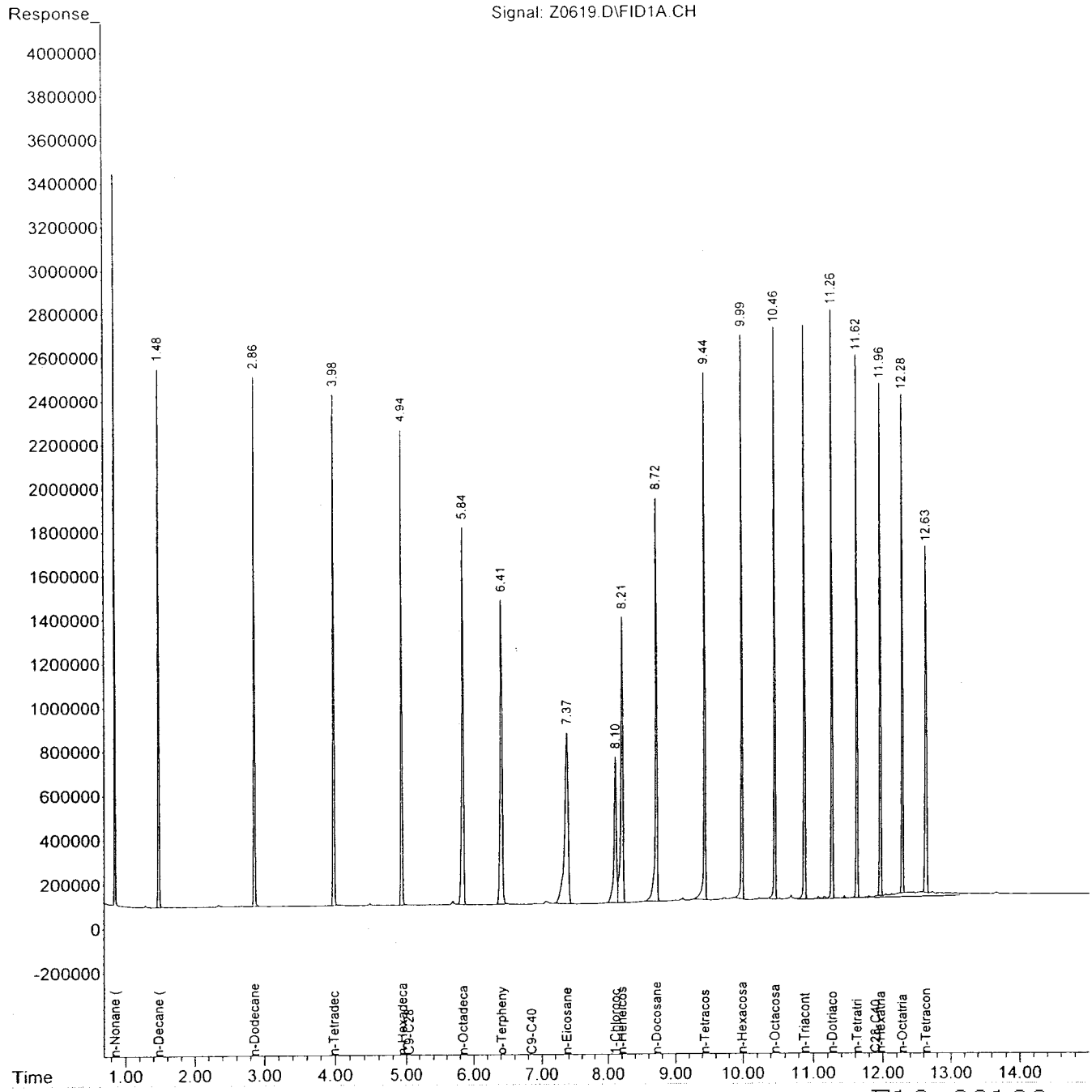
E13-09198

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0619.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 13:15
Operator : WP
Sample : ALI_L2_IAS_4648,100_PPM
Misc : ,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0620.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 21:18
Operator : WP
Sample : ALI_L1_IAS_4649,20_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.11	3165130	21.265 ng
Spiked Amount	100.000		Recovery =	21.27%
23) S	o-Terphenyl	6.42	6098099	21.846 ng
Spiked Amount	100.000		Recovery =	21.85%
	Target Compounds			
2) T	n-Nonane (C9)	0.86	5669379	23.962 ng
3) T	n-Decane (C10)	1.48	5698953	23.494 ng
4) T	n-Dodecane (C12)	2.86	5665085	22.813 ng
5) T	n-Tetradecane (C14)	3.99	5859159	22.719 ng
6) T	n-Hexadecane (C16)	4.95	6050492	22.700 ng
7) T	n-Octadecane (C18)	5.85	6251973	22.857 ng
8) T	n-Eicosane (C20)	7.37	6356836	22.832 ng
9) T	n-Heneicosane (C21)	8.20	6302320	24.145 ng
10) T	n-Docosane (C22)	8.72	6584503	22.973 ng
11) T	n-Tetracosane (C24)	9.44	6577176	23.073 ng
12) T	n-Hexacosane (C26)	9.99	6563484	23.298 ng
13) T	n-Octacosane (C28)	10.45	6612004	23.433 ng
14) T	n-Triacontane (C30)	10.87	6773802	23.741 ng
15) T	n-Dotriacontane (C32)	11.26	6665597	23.756 ng
16) T	n-Tetratriacontane (C34)	11.62	6409576	23.742 ng
17) T	n-Hexatriacontane (C36)	11.96	6288143	23.660 ng
18) T	n-Octatriacontane (C38)	12.28	5947409	23.412 ng
19) T	n-Tetracontane (C40)	12.63	5592270	23.083 ng
20) H	C9-C28	5.03	91188505	309.875 ng
21) H	C28-C40	11.88	45189372	157.596 ng
22) H	C9-C40	6.84	148355114	487.912 ng

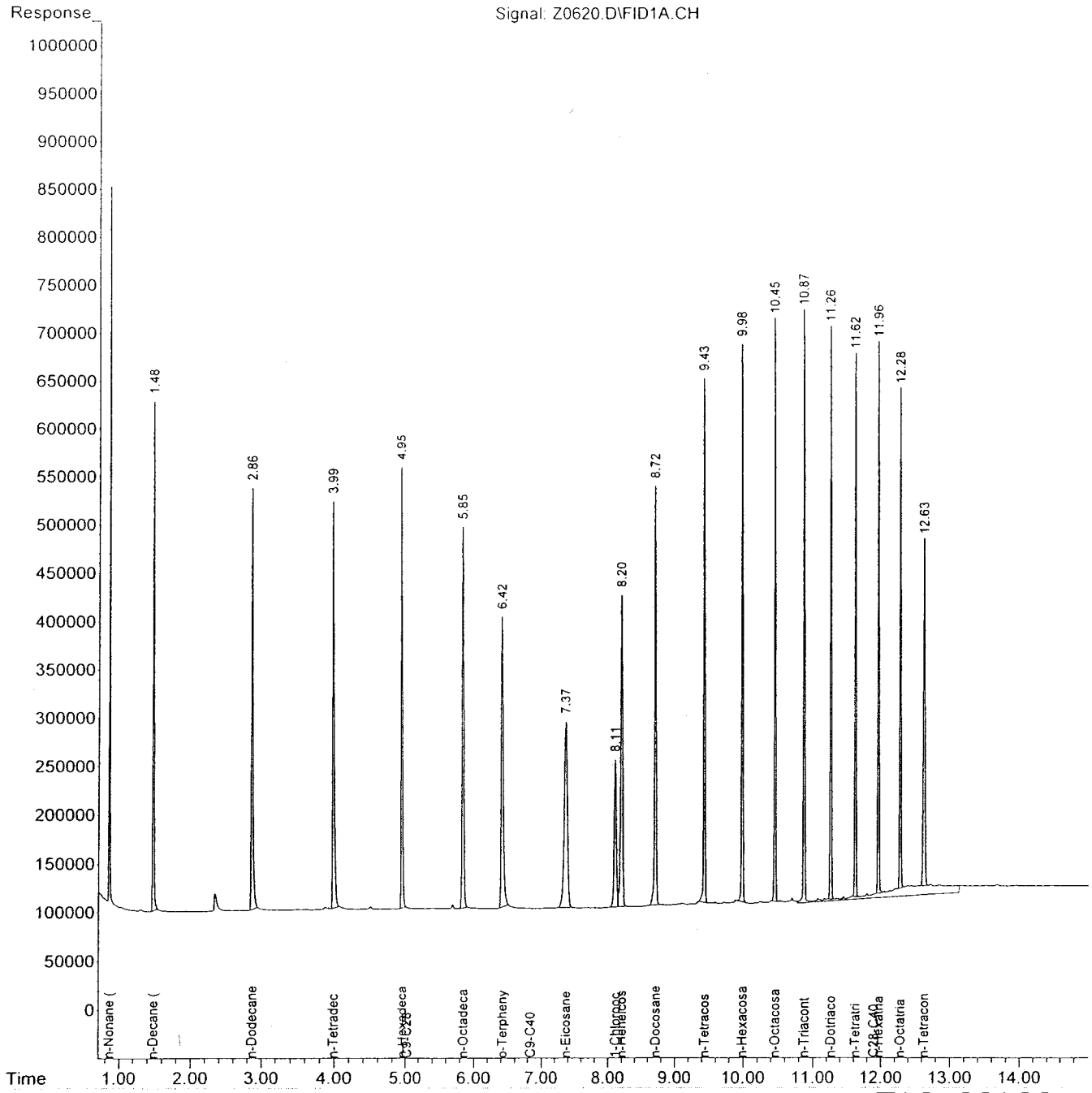
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0620.D
Signal(s) : FID1A.CH
Acq On : 05 Sep 2013 21:18
Operator : WP
Sample : ALI_L1_IAS_4649,20_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:07:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0621.D
Signal(s) : FID1A.CH
Acq On : 06 Sep 2013 7:23
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:40:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:09:47 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	8.12	42951239	288.703 ng
Spiked Amount	100.000		Recovery =	288.70%
23)	S o-Terphenyl	6.43	69689509	249.655 ng
Spiked Amount	100.000		Recovery =	249.66%
	Target Compounds			
2)	T n-Nonane (C9)	0.85	61404070	259.526 ng
3)	T n-Decane (C10)	1.48	63166886	260.405 ng
4)	T n-Dodecane (C12)	2.86	64522086	259.822 ng
5)	T n-Tetradecane (C14)	3.99	66336740	257.220 ng
6)	T n-Hexadecane (C16)	4.95	67913505	254.797 ng
7)	T n-Octadecane (C18)	5.86	69217362	253.056 ng
8)	T n-Eicosane (C20)	7.40	68290877	247.700 ng
9)	T n-Heneicosane (C21)	8.22	61348625	235.031 ng
10)	T n-Docosane (C22)	8.73	70991399	247.690 ng
11)	T n-Tetracosane (C24)	9.45	73053142	256.273 ng
12)	T n-Hexacosane (C26)	10.00	71930564	255.330 ng
13)	T n-Octacosane (C28)	10.47	70707730	250.591 ng
14)	T n-Triacontane (C30)	10.89	71843210	251.803 ng
15)	T n-Dotriacontane (C32)	11.27	69158426	246.475 ng
16)	T n-Tetratriacontane (C34)	11.64	66722781	247.152 ng
17)	T n-Hexatriacontane (C36)	11.98	66045651	248.509 ng
18)	T n-Octatriacontane (C38)	12.30	62634210	246.560 ng
19)	T n-Tetracontane (C40)	12.65	60211735	248.531 ng
20)	H C9-C28	5.03	905227511	3076.071 ng
21)	H C28-C40	11.88	411581511	1435.377 ng
22)	H C9-C40	6.84	1342962557	4416.694 ng

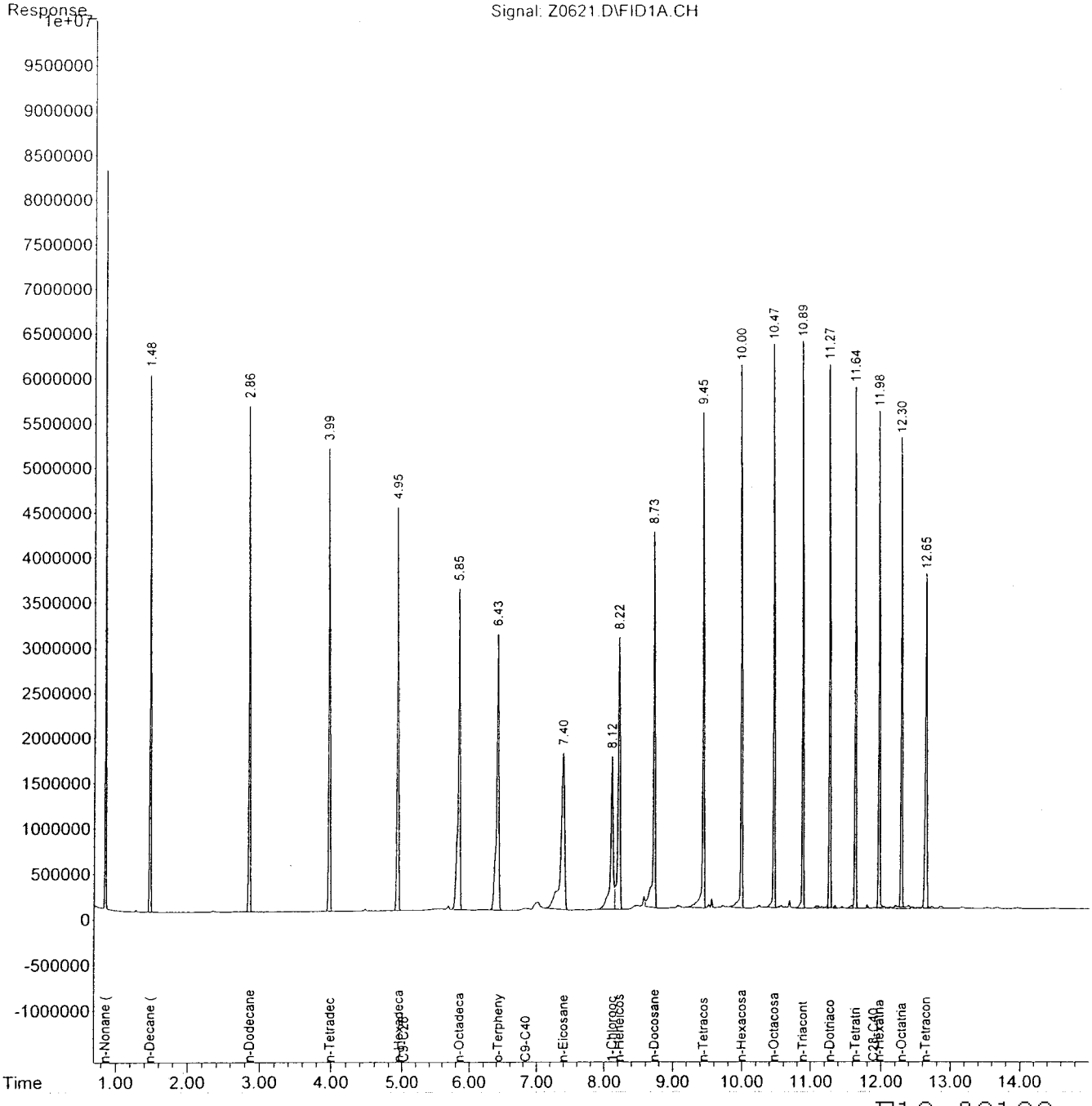
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-05-13\
Data File : Z0621.D
Signal(s) : FID1A.CH
Acq On : 06 Sep 2013 7:23
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 07:40:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:09:47 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/23/2013 **Instrument ID:** GC-Z

Data File: Z0806.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	245837	3.90
n-Decane (C10)	1.47	1.40	1.55	242572	258993	6.77
n-Dodecane (C12)	2.85	2.78	2.93	248331	265293	6.83
n-Tetradecane (C14)	3.97	3.91	4.06	257899	275210	6.71
n-Hexadecane (C16)	4.94	4.87	5.03	266540	283168	6.24
n-Octadecane (C18)	5.84	5.77	5.93	273526	288967	5.65
n-Eicosane (C20)	7.36	7.31	7.47	275700	288924	4.80
n-Heneicosane (C21)	8.20	8.14	8.30	261024	262891	0.72
n-Docosane (C22)	8.71	8.64	8.82	286614	289669	1.07
n-Tetracosane (C24)	9.43	9.35	9.53	285060	281807	1.14
n-Hexacosane (C26)	9.98	9.90	10.08	281716	273274	3.00
n_Octacosane (C28)	10.45	10.37	10.55	282164	269570	4.46
n-Triacontane (C30)	10.87	10.78	10.98	285316	271633	4.80
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	267426	4.69
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	258968	4.07
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	256643	3.43
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	247000	2.77
n-Tetracontane (C40)	12.62	12.49	12.79	242270	237505	1.97
C9-C28	5.03	4.93	5.13	3531366	3388653	4.04
C28-C40	11.88	11.78	11.98	1720446	1575437	8.43
C9-C40	6.84	6.73	6.95	5473172	5006253	8.53

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0824.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	241627	2.12
n-Decane (C10)	1.47	1.40	1.55	242572	256540	5.76
n-Dodecane (C12)	2.84	2.78	2.93	248331	263197	5.99
n-Tetradecane (C14)	3.97	3.91	4.06	257899	273518	6.06
n-Hexadecane (C16)	4.94	4.87	5.03	266540	281610	5.65
n-Octadecane (C18)	5.84	5.77	5.93	273526	287926	5.26
n-Eicosane (C20)	7.36	7.31	7.47	275700	289863	5.14
n-Heneicosane (C21)	8.20	8.14	8.30	261024	263484	0.94
n-Docosane (C22)	8.71	8.64	8.82	286614	292669	2.11
n-Tetracosane (C24)	9.43	9.35	9.53	285060	288822	1.32
n-Hexacosane (C26)	9.98	9.90	10.08	281716	279142	0.91
n_Octacosane (C28)	10.45	10.37	10.55	282164	276823	1.89
n-Triacontane (C30)	10.87	10.78	10.98	285316	278842	2.27
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	274599	2.14
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	265960	1.48
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	263109	1.00
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	253783	0.10
n-Tetracontane (C40)	12.62	12.49	12.79	242270	246204	1.62
C9-C28	5.03	4.93	5.13	3531366	3500802	0.87
C28-C40	11.88	11.78	11.98	1720446	1641995	4.56
C9-C40	6.84	6.73	6.95	5473172	5200625	4.98

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0826.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	263986	11.57
n-Decane (C10)	1.47	1.40	1.55	242572	278221	14.70
n-Dodecane (C12)	2.84	2.78	2.93	248331	285503	14.97
n-Tetradecane (C14)	3.97	3.91	4.06	257899	296011	14.78
n-Hexadecane (C16)	4.94	4.87	5.03	266540	304300	14.17
n-Octadecane (C18)	5.84	5.77	5.93	273526	308799	12.90
n-Eicosane (C20)	7.36	7.31	7.47	275700	306442	11.15
n-Heneicosane (C21)	8.20	8.14	8.30	261024	275740	5.64
n-Docosane (C22)	8.71	8.64	8.82	286614	306873	7.07
n-Tetracosane (C24)	9.43	9.35	9.53	285060	299218	4.97
n-Hexacosane (C26)	9.98	9.90	10.08	281716	287147	1.93
n_Octacosane (C28)	10.45	10.37	10.55	282164	282118	0.02
n-Triacontane (C30)	10.87	10.78	10.98	285316	283387	0.68
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	279031	0.56
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	270880	0.34
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	268948	1.20
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	260483	2.54
n-Tetracontane (C40)	12.62	12.49	12.79	242270	252689	4.30
C9-C28	5.03	4.93	5.13	3531366	3594162	1.78
C28-C40	11.88	11.78	11.98	1720446	1665380	3.20
C9-C40	6.84	6.73	6.95	5473172	5312773	2.93

NJ-EPH-DRO CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/24/2013 **Instrument ID:** GC-Z

Data File: Z0830.D **GC Column :** RTX-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	0.85	0.77	0.92	236600	247694	4.69
n-Decane (C10)	1.47	1.40	1.55	242572	262075	8.04
n-Dodecane (C12)	2.84	2.78	2.93	248331	268761	8.23
n-Tetradecane (C14)	3.97	3.91	4.06	257899	278808	8.11
n-Hexadecane (C16)	4.94	4.87	5.03	266540	287440	7.84
n-Octadecane (C18)	5.84	5.77	5.93	273526	292619	6.98
n-Eicosane (C20)	7.36	7.31	7.47	275700	291488	5.73
n-Heneicosane (C21)	8.20	8.14	8.30	261024	261959	0.36
n-Docosane (C22)	8.71	8.64	8.82	286614	291973	1.87
n-Tetracosane (C24)	9.43	9.35	9.53	285060	284237	0.29
n-Hexacosane (C26)	9.98	9.90	10.08	281716	271952	3.47
n_Octacosane (C28)	10.45	10.37	10.55	282164	266681	5.49
n-Triacontane (C30)	10.87	10.78	10.98	285316	267168	6.36
n-Dotriacontane (C32)	11.26	11.17	11.37	280590	262264	6.53
n-Tetratriacontane (C34)	11.62	11.53	11.73	269967	253462	6.11
n-Hexatriacontane (C36)	11.96	11.82	12.12	265768	252136	5.13
n-Octatriacontane (C38)	12.28	12.14	12.44	254032	243934	3.98
n-Tetracontane (C40)	12.62	12.49	12.79	242270	236911	2.21
C9-C28	5.03	4.93	5.13	3531366	3404547	3.59
C28-C40	11.88	11.78	11.98	1720446	1563282	9.14
C9-C40	6.84	6.73	6.95	5473172	5019690	8.29

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0806.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 22:59
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	39468506	265.170 ng
Spiked Amount	100.000		Recovery =	265.17%
23) S	o-Terphenyl	6.40	72986512	261.466 ng
Spiked Amount	100.000		Recovery =	261.47%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61459143	259.759 ng
3) T	n-Decane (C10)	1.47	64748182	266.924 ng
4) T	n-Dodecane (C12)	2.85	66323285	267.076 ng
5) T	n-Tetradecane (C14)	3.97	68802429	266.781 ng
6) T	n-Hexadecane (C16)	4.94	70792086	265.597 ng
7) T	n-Octadecane (C18)	5.84	72241726	264.113 ng
8) T	n-Eicosane (C20)	7.36	72230894	259.428 ng
9) T	n-Heneicosane (C21)	8.20	65722699	251.788 ng
10) T	n-Docosane (C22)	8.71	72417365	252.665 ng
11) T	n-Tetracosane (C24)	9.43	70451679	247.147 ng
12) T	n-Hexacosane (C26)	9.98	68318515	242.509 ng
13) T	n-Octacosane (C28)	10.45	67392619	238.842 ng
14) T	n-Triacontane (C30)	10.87	67908365	238.011 ng
15) T	n-Dotriacontane (C32)	11.26	66856389	238.270 ng
16) T	n-Tetratriacontane (C34)	11.62	64741968	239.815 ng
17) T	n-Hexatriacontane (C36)	11.96	64160801	241.417 ng
18) T	n-Octatriacontane (C38)	12.28	61750077	243.079 ng
19) T	n-Tetracontane (C40)	12.62	59376269	245.083 ng
20) H	C9-C28	5.03	847163218	2878.817 ng
21) H	C28-C40	11.88	393859140	1373.571 ng
22) H	C9-C40	6.84	1251563174	4116.154 ng

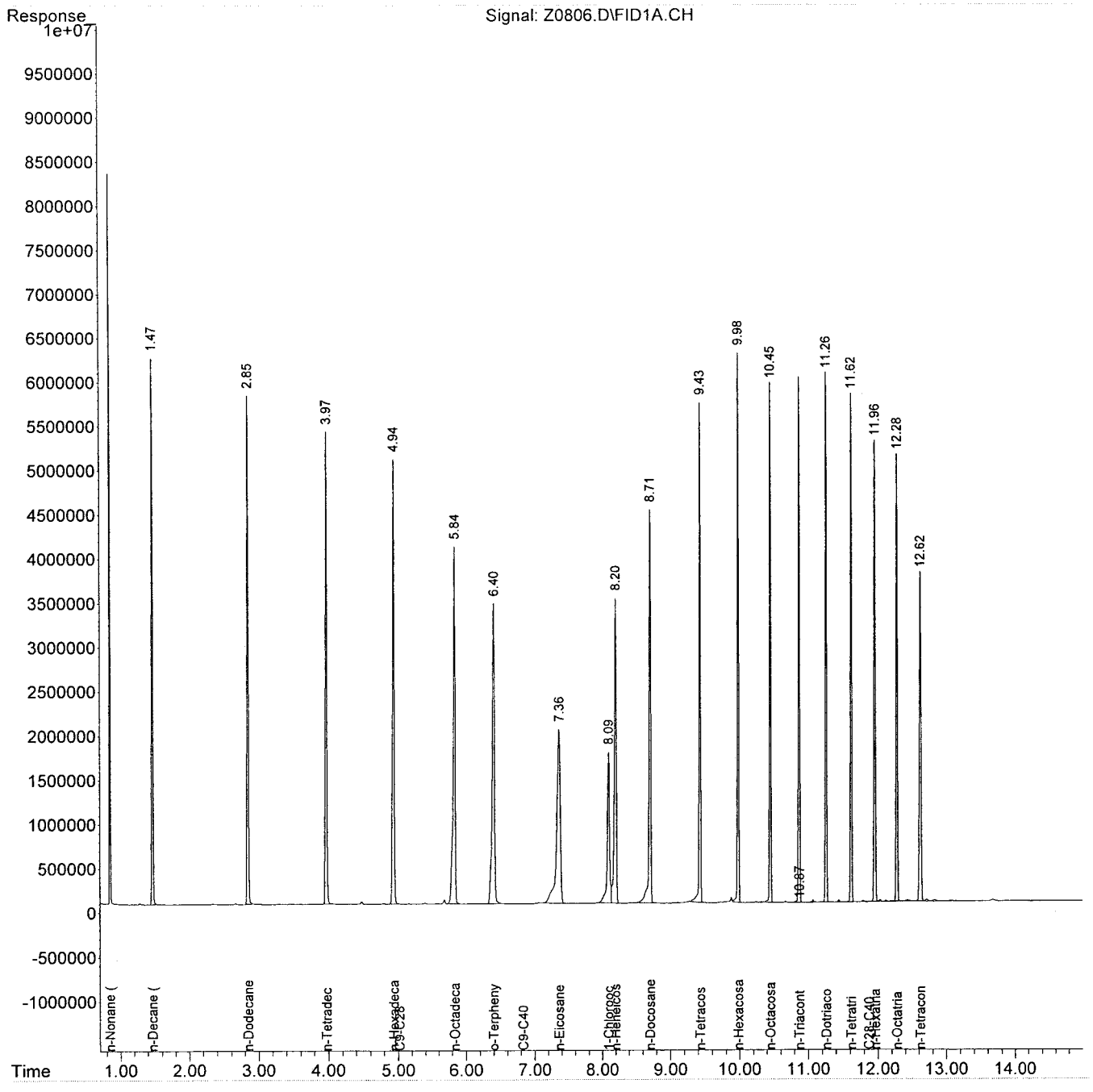
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0806.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 22:59
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09198: 20419

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0824.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:38
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	40269064	270.549 ng
Spiked Amount	100.000		Recovery =	270.55%
23) S	o-Terphenyl	6.40	73357159	262.794 ng
Spiked Amount	100.000		Recovery =	262.79%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	60406859	255.312 ng
3) T	n-Decane (C10)	1.47	64134984	264.396 ng
4) T	n-Dodecane (C12)	2.84	65799275	264.966 ng
5) T	n-Tetradecane (C14)	3.97	68379499	265.141 ng
6) T	n-Hexadecane (C16)	4.94	70402422	264.135 ng
7) T	n-Octadecane (C18)	5.84	71981588	263.161 ng
8) T	n-Eicosane (C20)	7.36	72465823	260.272 ng
9) T	n-Heneicosane (C21)	8.20	65871049	252.356 ng
10) T	n-Docosane (C22)	8.71	73167350	255.282 ng
11) T	n-Tetracosane (C24)	9.43	72205574	253.300 ng
12) T	n-Hexacosane (C26)	9.98	69785502	247.716 ng
13) T	n-Octacosane (C28)	10.45	69205716	245.268 ng
14) T	n-Triacontane (C30)	10.87	69710536	244.328 ng
15) T	n-Dotriacontane (C32)	11.26	68649802	244.662 ng
16) T	n-Tetratriacontane (C34)	11.62	66490014	246.290 ng
17) T	n-Hexatriacontane (C36)	11.96	65777252	247.499 ng
18) T	n-Octatriacontane (C38)	12.28	63445745	249.754 ng
19) T	n-Tetracontane (C40)	12.62	61551081	254.060 ng
20) H	C9-C28	5.03	875200428	2974.093 ng
21) H	C28-C40	11.88	410498636	1431.601 ng
22) H	C9-C40	6.84	1300156248	4275.968 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

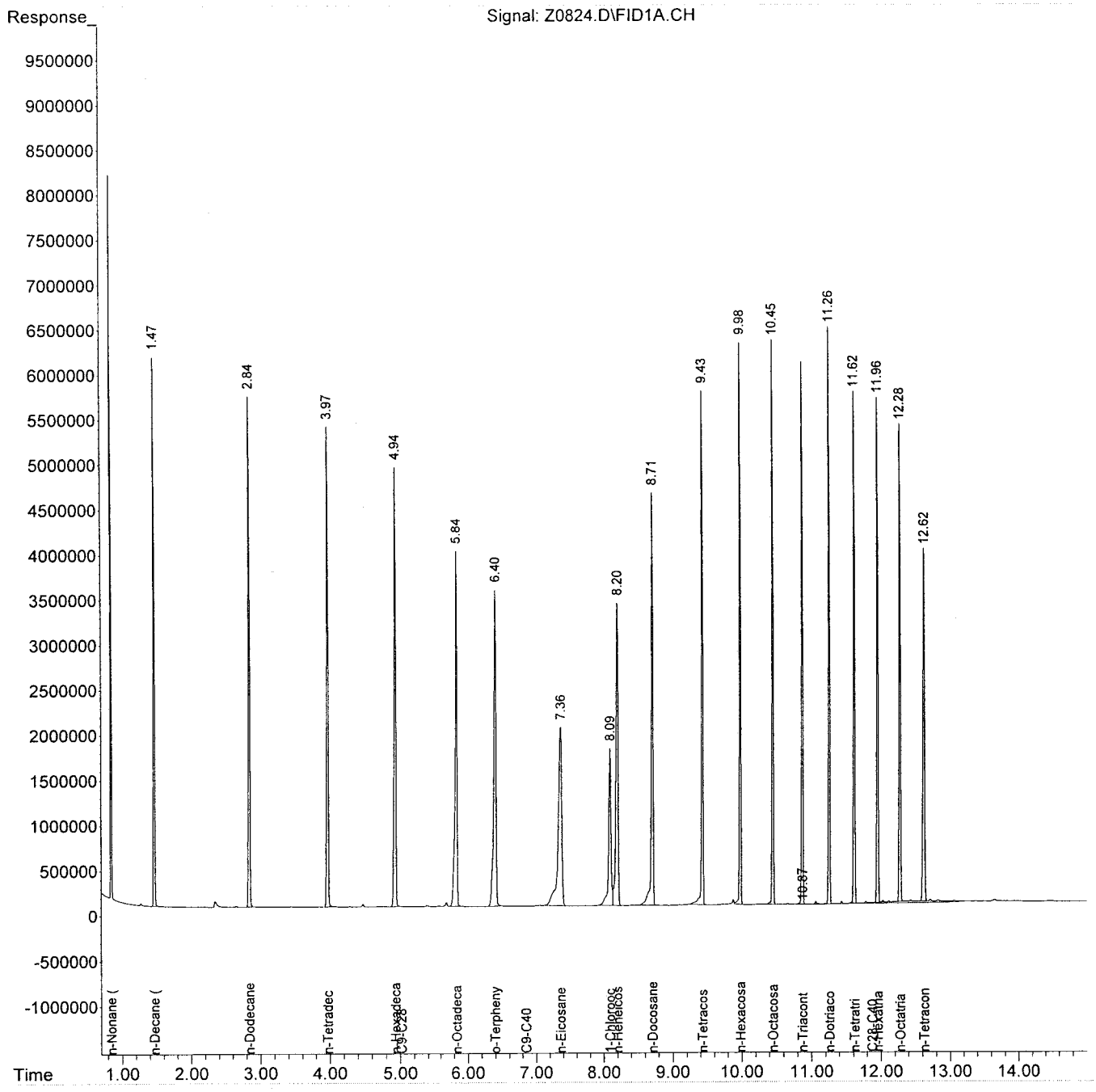
E13-09198 0420

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0824.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:38
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 09:15:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09198

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0826.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:08
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:35:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	1-Chlorooctadecane	8.09	43067511	289.350	ng
Spiked Amount		100.000		Recovery	= 289.35%	
23)	S	o-Terphenyl	6.40	77912208	279.112	ng
Spiked Amount		100.000		Recovery	= 279.11%	
Target Compounds						
2)	T	n-Nonane (C9)	0.85	65996489	278.936	ng
3)	T	n-Decane (C10)	1.47	69555315	286.741	ng
4)	T	n-Dodecane (C12)	2.84	71375659	287.421	ng
5)	T	n-Tetradecane (C14)	3.97	74002698	286.945	ng
6)	T	n-Hexadecane (C16)	4.94	76074905	285.417	ng
7)	T	n-Octadecane (C18)	5.84	77199743	282.239	ng
8)	T	n-Eicosane (C20)	7.36	76610434	275.158	ng
9)	T	n-Heneicosane (C21)	8.20	68935120	264.095	ng
10)	T	n-Docosane (C22)	8.71	76718363	267.671	ng
11)	T	n-Tetracosane (C24)	9.43	74804468	262.417	ng
12)	T	n-Hexacosane (C26)	9.98	71786860	254.820	ng
13)	T	n-Octacosane (C28)	10.45	70529490	249.959	ng
14)	T	n-Triacontane (C30)	10.87	70846849	248.310	ng
15)	T	n-Dotriacontane (C32)	11.26	69757696	248.610	ng
16)	T	n-Tetratriacontane (C34)	11.62	67720106	250.846	ng
17)	T	n-Hexatriacontane (C36)	11.96	67237018	252.992	ng
18)	T	n-Octatriacontane (C38)	12.28	65120755	256.348	ng
19)	T	n-Tetracontane (C40)	12.62	63172172	260.751	ng
20)	H	C9-C28	5.03	898540517	3053.407	ng
21)	H	C28-C40	11.88	416345038	1451.990	ng
22)	H	C9-C40	6.84	1328193139	4368.176	ng

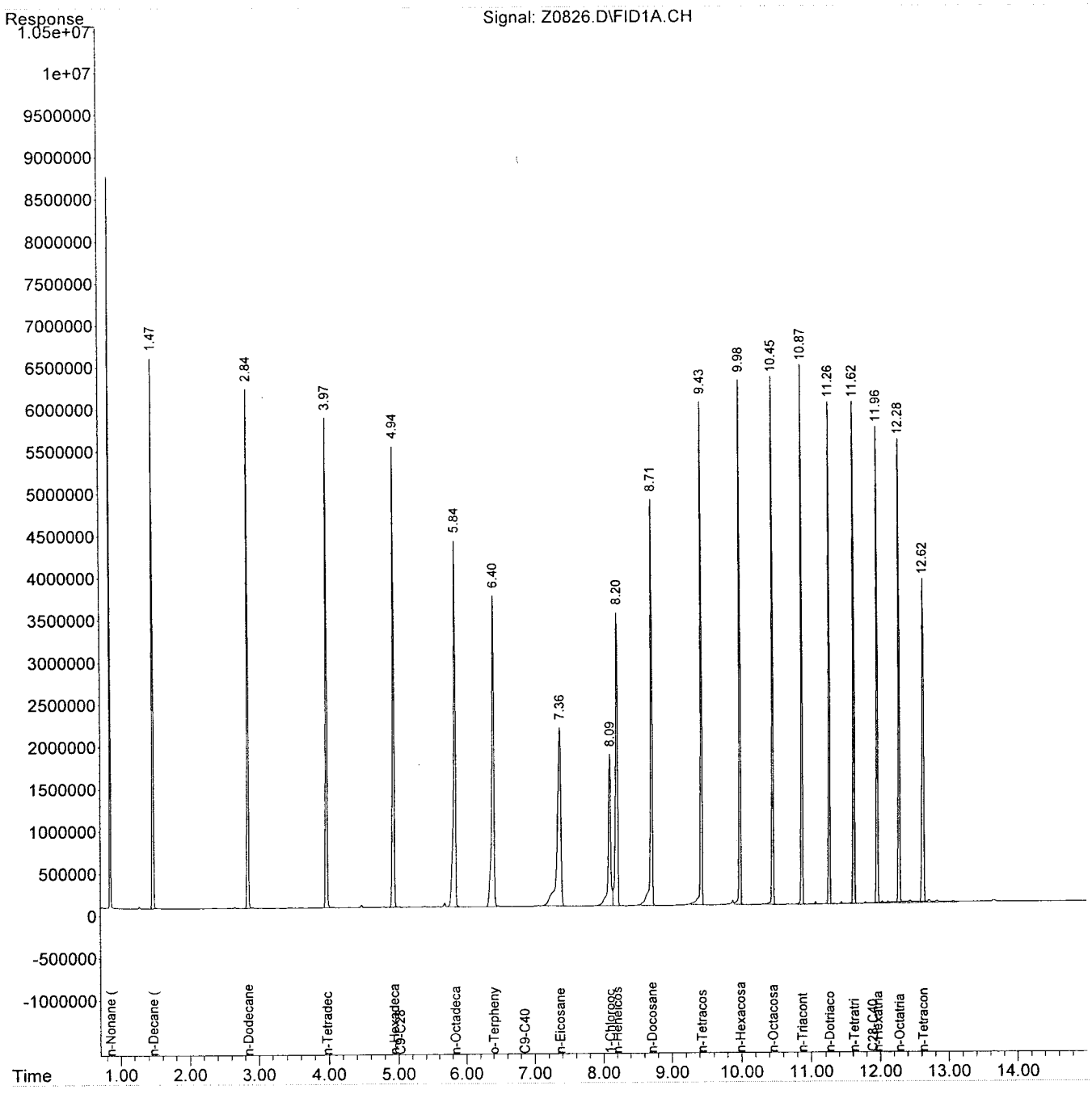
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0826.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 10:08
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:35:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0830.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:44
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 12:02:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	8.09	40809174	274.177 ng
Spiked Amount	100.000		Recovery =	274.18%
23) S	o-Terphenyl	6.40	73753071	264.212 ng
Spiked Amount	100.000		Recovery =	264.21%
	Target Compounds			
2) T	n-Nonane (C9)	0.85	61923491	261.722 ng
3) T	n-Decane (C10)	1.47	65518781	270.101 ng
4) T	n-Dodecane (C12)	2.84	67190374	270.567 ng
5) T	n-Tetradecane (C14)	3.97	69701996	270.269 ng
6) T	n-Hexadecane (C16)	4.94	71860086	269.603 ng
7) T	n-Octadecane (C18)	5.84	73154701	267.450 ng
8) T	n-Eicosane (C20)	7.36	72871997	261.731 ng
9) T	n-Heneicosane (C21)	8.20	65489857	250.896 ng
10) T	n-Docosane (C22)	8.71	72993234	254.674 ng
11) T	n-Tetracosane (C24)	9.43	71059291	249.278 ng
12) T	n-Hexacosane (C26)	9.98	67988040	241.336 ng
13) T	n-Octacosane (C28)	10.45	66670173	236.282 ng
14) T	n-Triacontane (C30)	10.87	66791885	234.098 ng
15) T	n-Dotriacontane (C32)	11.26	65565898	233.671 ng
16) T	n-Tetratriacontane (C34)	11.62	63365495	234.716 ng
17) T	n-Hexatriacontane (C36)	11.96	63034047	237.177 ng
18) T	n-Octatriacontane (C38)	12.28	60983384	240.061 ng
19) T	n-Tetracontane (C40)	12.62	59227866	244.470 ng
20) H	C9-C28	5.03	851136727	2892.320 ng
21) H	C28-C40	11.88	390820568	1362.974 ng
22) H	C9-C40	6.84	1254922506	4127.203 ng

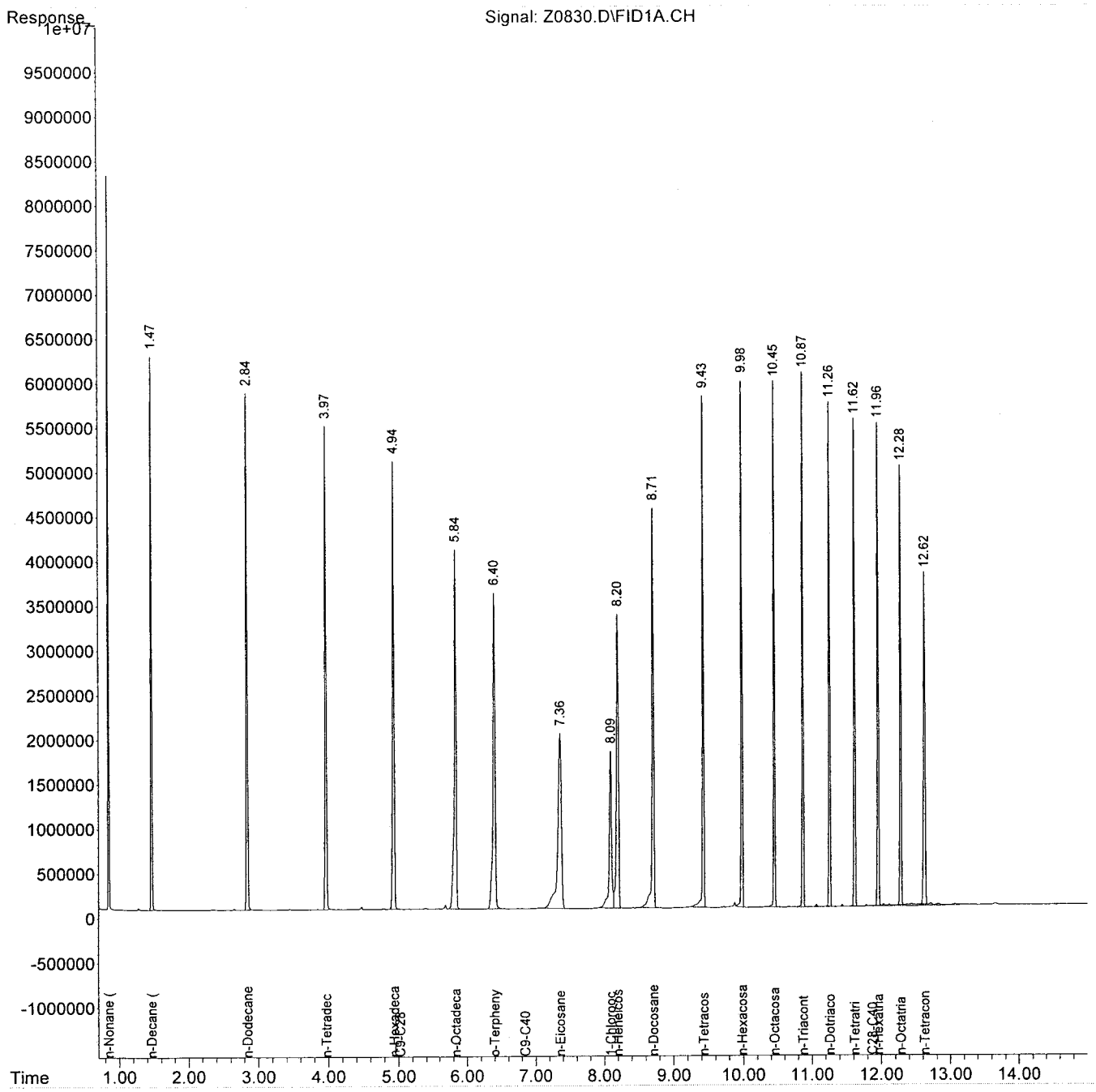
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-24-13\
Data File : Z0830.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 11:44
Operator : WP
Sample : ALI_C_IAS_4647,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 12:02:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0808.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:43
Operator : WP
Sample : NJ-EPH-C,LCSS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	1-Chlorooctadecane	8.09	13433471	90.253	ng	
Spiked Amount		100.000		Recovery =	90.25%		
23)	S	o-Terphenyl	6.39	25819488	92.495	ng	
Spiked Amount		100.000		Recovery =	92.50%		
Target Compounds							
2)	T	n-Nonane (C9)	0.84	8452565	35.725	ng	
3)	T	n-Decane (C10)	1.46	13383815	55.175	ng	
4)	T	n-Dodecane (C12)	2.84	17823807	71.774	ng	
5)	T	n-Tetradecane (C14)	3.97	20532517	79.615	ng	
6)	T	n-Hexadecane (C16)	4.94	23365566	87.663	ng	
7)	T	n-Octadecane (C18)	5.83	32125335	117.449	ng	
8)	T	n-Eicosane (C20)	7.35	25719459	92.375	ng	
9)	T	n-Heneicosane (C21)	8.19	29343713	112.418	ng	
10)	T	n-Docosane (C22)	8.70	27976488	97.610	ng	
11)	T	n-Tetracosane (C24)	9.43	26190566	91.877	ng	
12)	T	n-Hexacosane (C26)	9.97	26415280	93.766	ng	
13)	T	n-Octacosane (C28)	10.44	26979304	95.616	ng	m
14)	T	n-Triacontane (C30)	10.87	26163625	91.701	ng	
15)	T	n-Dotriacontane (C32)	11.25	24452231	87.146	ng	
16)	T	n-Tetratriacontane (C34)	11.61	23159626	85.787	ng	
17)	T	n-Hexatriacontane (C36)	11.95	18730258	70.476	ng	
18)	T	n-Octatriacontane (C38)	12.27	15607542	61.439	ng	
19)	T	n-Tetracontane (C40)	12.62	13989521	57.744	ng	
20)	H	C9-C28	5.03	741277119	2518.997	ng	
21)	H	C28-C40	11.88	225107995	785.057	ng	
22)	H	C9-C40	6.84	973593480	3201.965	ng	

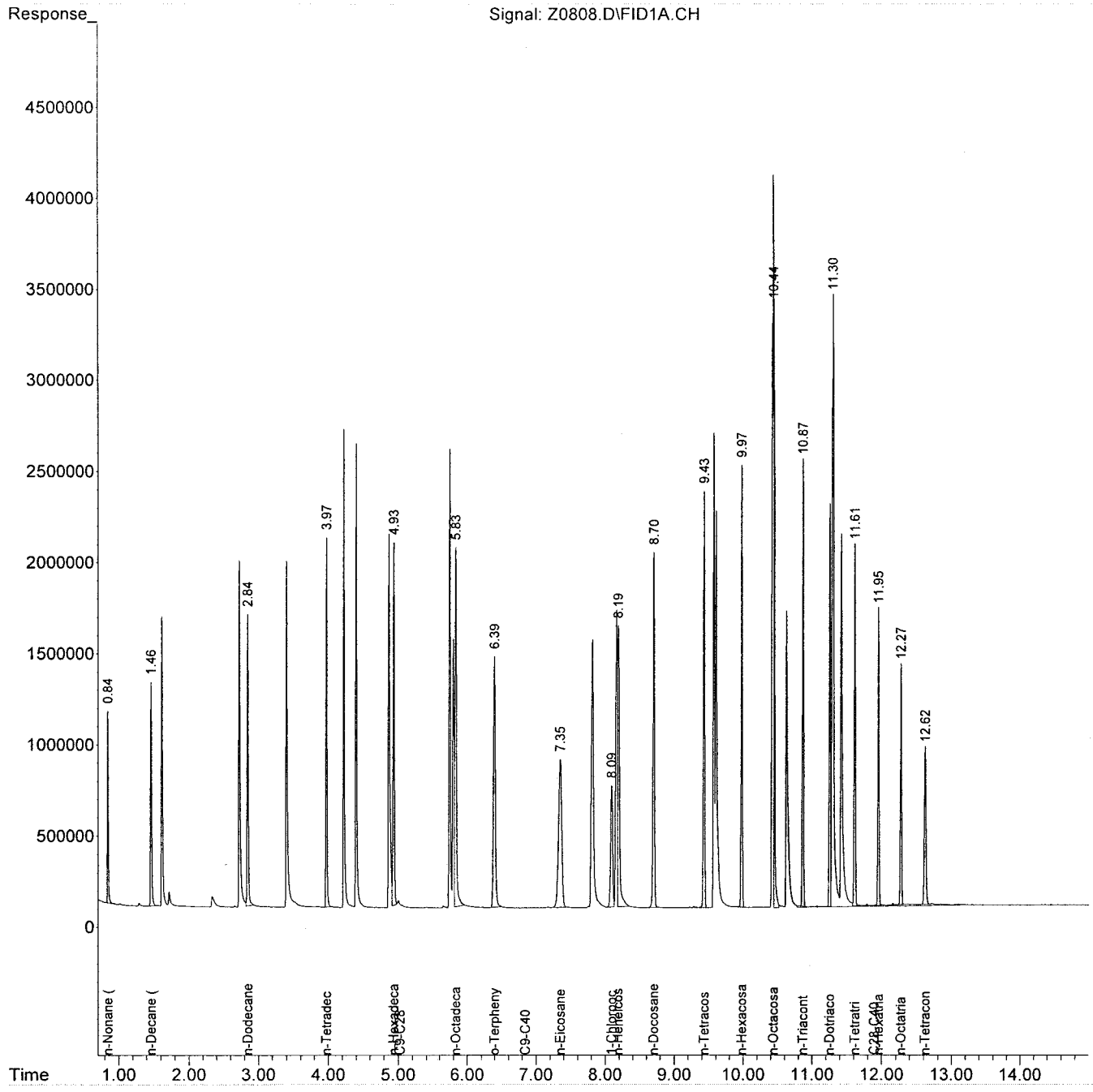
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0808.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:43
Operator : WP
Sample : NJ-EPH-C,LCSS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0809.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:05
Operator : WP
Sample : NJ-EPH-C,LCSDS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	8.09	13184532	88.581	ng	
Spiked Amount	100.000		Recovery =	88.58%		
23) S	o-Terphenyl	6.39	25402548	91.002	ng	
Spiked Amount	100.000		Recovery =	91.00%		
	Target Compounds					
2) T	n-Nonane (C9)	0.84	8360697	35.337	ng	
3) T	n-Decane (C10)	1.46	13270421	54.707	ng	
4) T	n-Dodecane (C12)	2.84	17718666	71.351	ng	
5) T	n-Tetradecane (C14)	3.97	20235938	78.465	ng	
6) T	n-Hexadecane (C16)	4.94	23084850	86.609	ng	
7) T	n-Octadecane (C18)	5.83	31888409	116.583	ng	
8) T	n-Eicosane (C20)	7.35	25370928	91.124	ng	
9) T	n-Heneicosane (C21)	8.19	29964512	114.796	ng	
10) T	n-Docosane (C22)	8.70	27648943	96.467	ng	
11) T	n-Tetracosane (C24)	9.43	25693935	90.135	ng	
12) T	n-Hexacosane (C26)	9.98	26187105	92.956	ng	
13) T	n-Octacosane (C28)	10.44	24924871	88.335	ng	m
14) T	n-Triacontane (C30)	10.87	25894656	90.758	ng	
15) T	n-Dotriacontane (C32)	11.25	24102356	85.899	ng	
16) T	n-Tetratriacontane (C34)	11.61	22681800	84.017	ng	
17) T	n-Hexatriacontane (C36)	11.95	18123474	68.193	ng	
18) T	n-Octatriacontane (C38)	12.27	15031977	59.173	ng	
19) T	n-Tetracontane (C40)	12.62	13547493	55.919	ng	
20) H	C9-C28	5.03	729587394	2479.273	ng	
21) H	C28-C40	11.88	221092863	771.054	ng	
22) H	C9-C40	6.84	959779746	3156.534	ng	

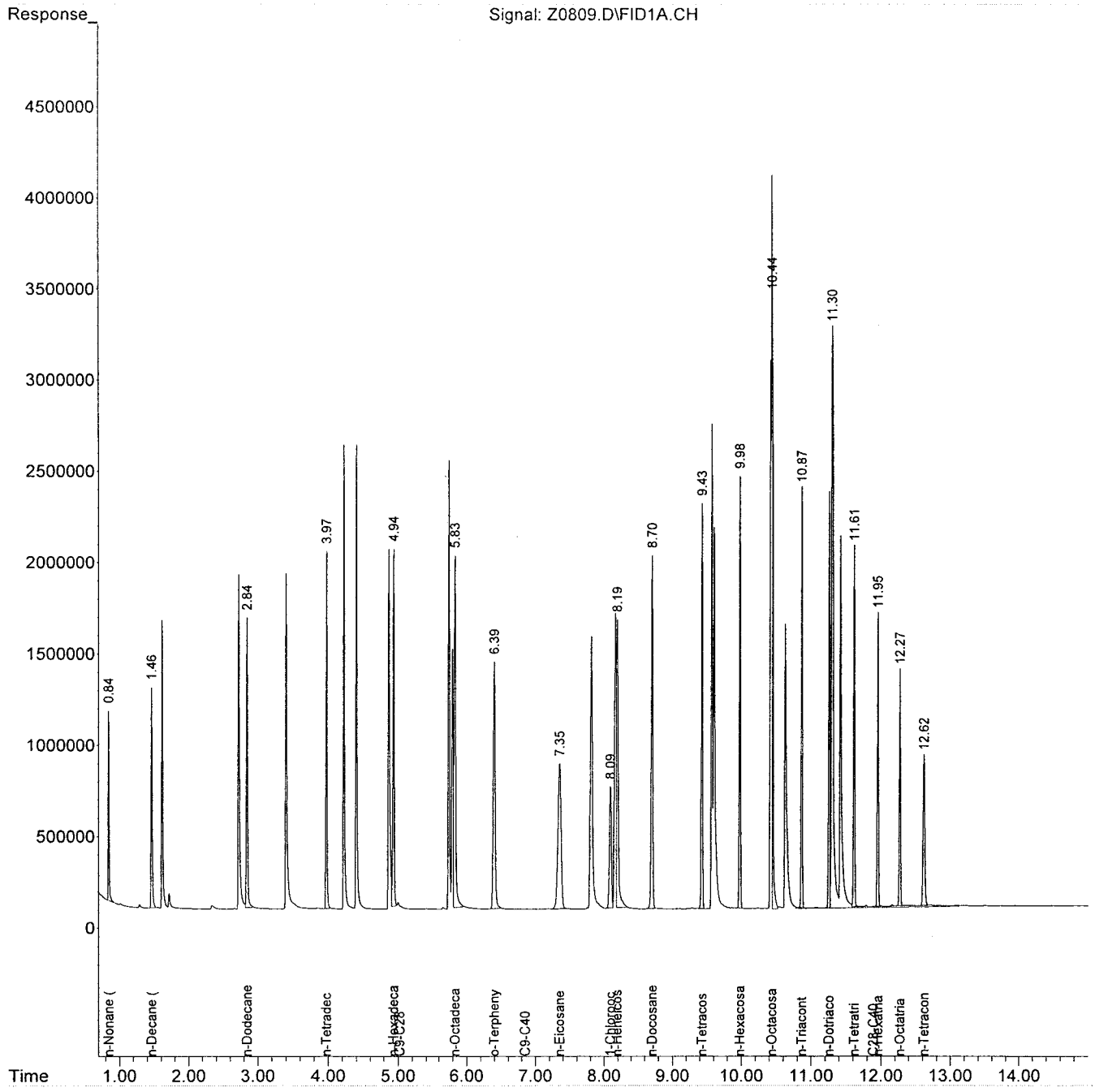
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0809.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 00:05
Operator : WP
Sample : NJ-EPH-C,LCSDS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0823.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:16
Operator : WP
Sample : NJ-EPH-C,09198-004MS,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:09:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	1-Chlorooctadecane	8.09	11235381	75.485	ng	
Spiked Amount		100.000		Recovery =	75.48%		
23)	S	o-Terphenyl	6.39	21701384	77.743	ng	
Spiked Amount		100.000		Recovery =	77.74%		
Target Compounds							
2)	T	n-Nonane (C9)	0.84	7600081	32.122	ng	
3)	T	n-Decane (C10)	1.46	11548542	47.609	ng	
4)	T	n-Dodecane (C12)	2.84	14804169	59.615	ng	
5)	T	n-Tetradecane (C14)	3.97	17086951	66.254	ng	
6)	T	n-Hexadecane (C16)	4.93	19300175	72.410	ng	
7)	T	n-Octadecane (C18)	5.83	25200688	92.133	ng	m
8)	T	n-Eicosane (C20)	7.35	21249681	76.321	ng	
9)	T	n-Heneicosane (C21)	8.18	24582609	94.178	ng	m
10)	T	n-Docosane (C22)	8.70	22929923	80.003	ng	
11)	T	n-Tetracosane (C24)	9.43	21155072	74.213	ng	
12)	T	n-Hexacosane (C26)	9.97	21368098	75.850	ng	
13)	T	n-Octacosane (C28)	10.44	21557233	76.400	ng	m
14)	T	n-Triacontane (C30)	10.87	21110395	73.990	ng	
15)	T	n-Dotriacontane (C32)	11.25	19898544	70.917	ng	
16)	T	n-Tetratriacontane (C34)	11.61	19354511	71.692	ng	
17)	T	n-Hexatriacontane (C36)	11.95	16029315	60.313	ng	
18)	T	n-Octatriacontane (C38)	12.27	12488797	49.162	ng	
19)	T	n-Tetracontane (C40)	12.62	11095834	45.799	ng	
20)	H	C9-C28	5.03	605476510	2057.521	ng	
21)	H	C28-C40	11.88	194717509	679.071	ng	
22)	H	C9-C40	6.84	820855476	2699.638	ng	

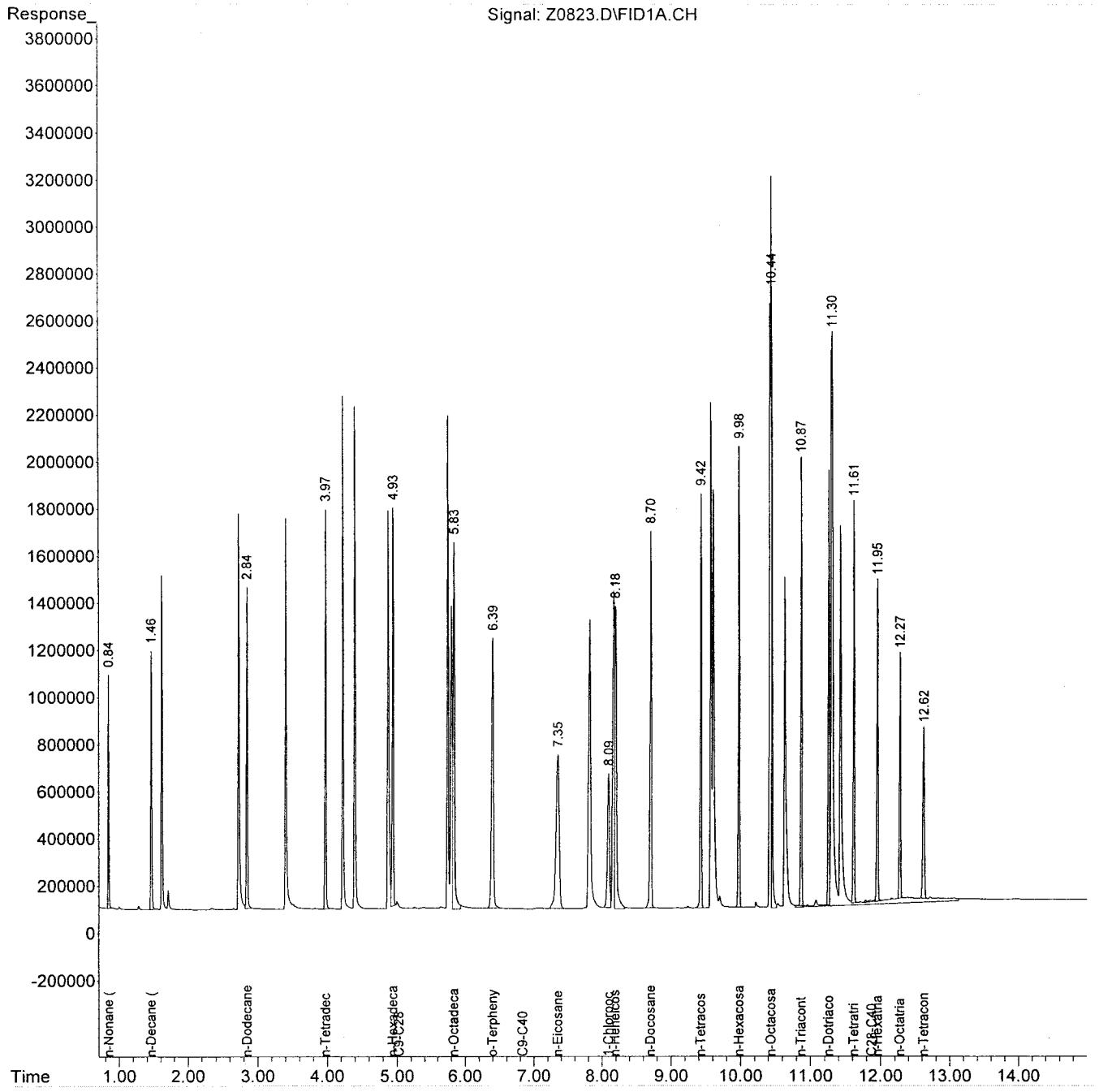
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0823.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 5:16
Operator : WP
Sample : NJ-EPH-C,09198-004MS,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:09:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	11875881	79.788 ng
Spiked Amount 100.000		Recovery =	79.79%
23) S o-Terphenyl	6.39	23982725	85.915 ng
Spiked Amount 100.000		Recovery =	85.92%
Target Compounds			
22) H C9-C40	6.84	80350863	264.259 ng

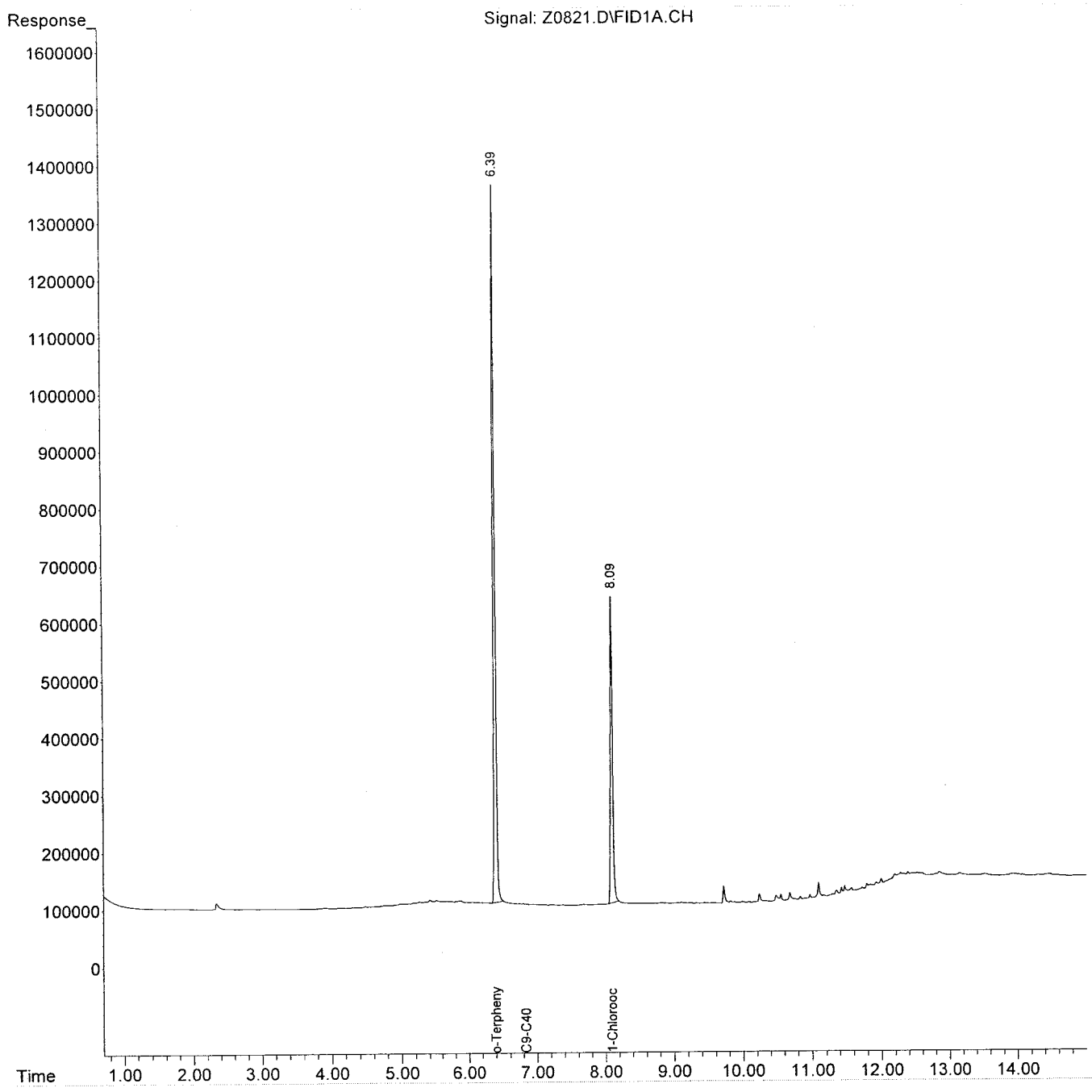
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0821.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:31
Operator : WP
Sample : AOC-12-4,09198-004,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



E13-09198

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0822.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:54
Operator : WP
Sample : AOC-12-4,09198-4D,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	8.09	12030287	80.826 ng
Spiked Amount 100.000		Recovery =	80.83%
23) S o-Terphenyl	6.39	24456093	87.611 ng
Spiked Amount 100.000		Recovery =	87.61%
Target Compounds			
22) H C9-C40	6.84	82029218	269.779 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

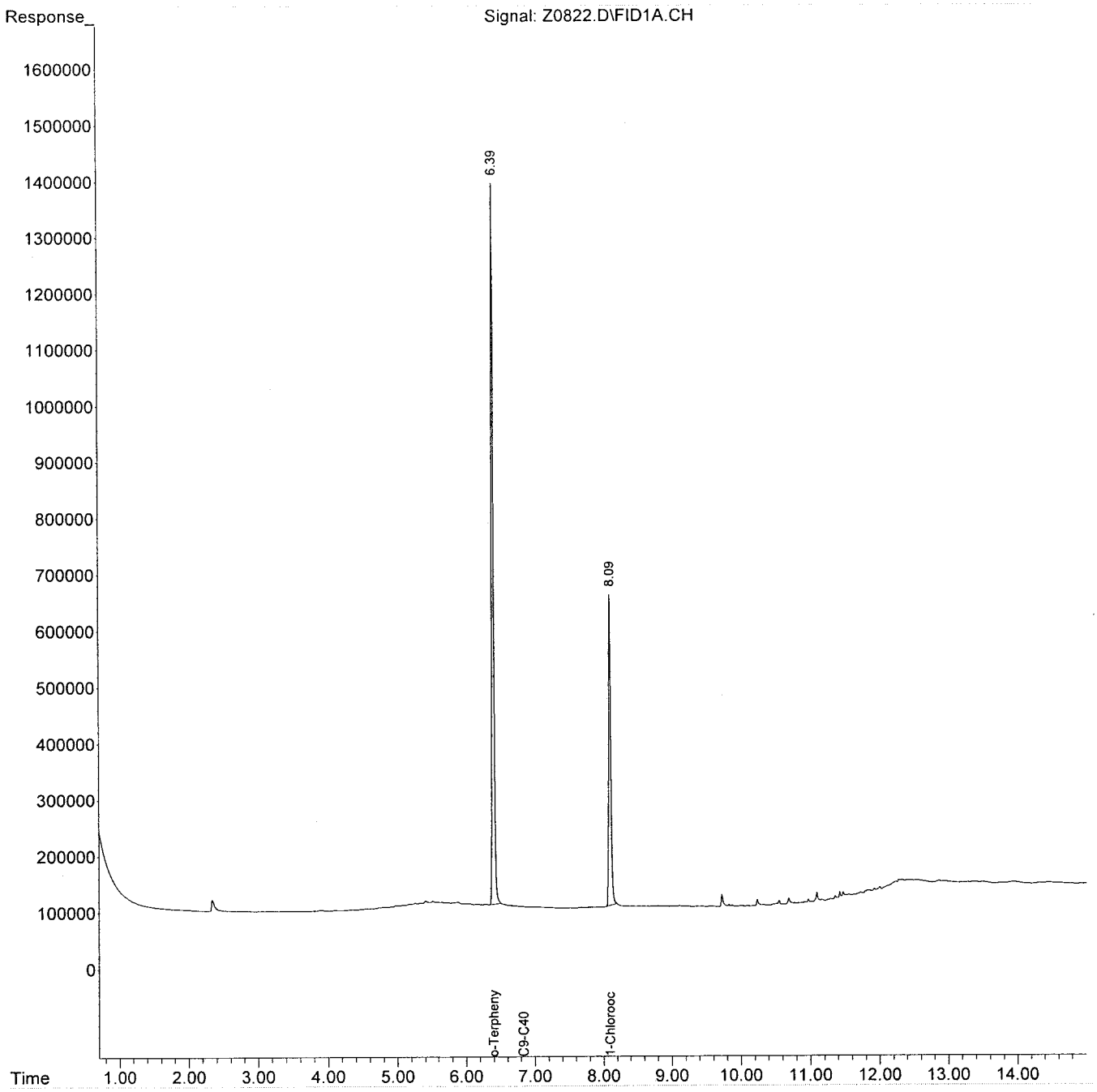
WP

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0822.D
Signal(s) : FID1A.CH
Acq On : 24 Sep 2013 4:54
Operator : WP
Sample : AOC-12-4,09198-4D,S,10.0g,19.6,09/19/13,1
Misc : 130919-06,09/18/13,09/18/13,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:08:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-C40

Lab ID: BLKS130919-06
Client ID: NJ-EPH-C
Date Received: NA
Date Extracted: 09/19/2013
Date Analyzed: 09/23/2013
Data file: Z0807.D

GC Column: RTX-5
Sample wt/vol: 10.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
C9-C40	ND		36.0	9.00

D --- Dilution Performed
J --- Value Less than RL & great than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0807.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:21
Operator : WP
Sample : NJ-EPH-C,BLKS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	8.10	10983605	73.794	ng	m
Spiked Amount 100.000		Recovery =	73.79%		
23) S o-Terphenyl	6.40	20973388	75.135	ng	
Spiked Amount 100.000		Recovery =	75.14%		
Target Compounds					

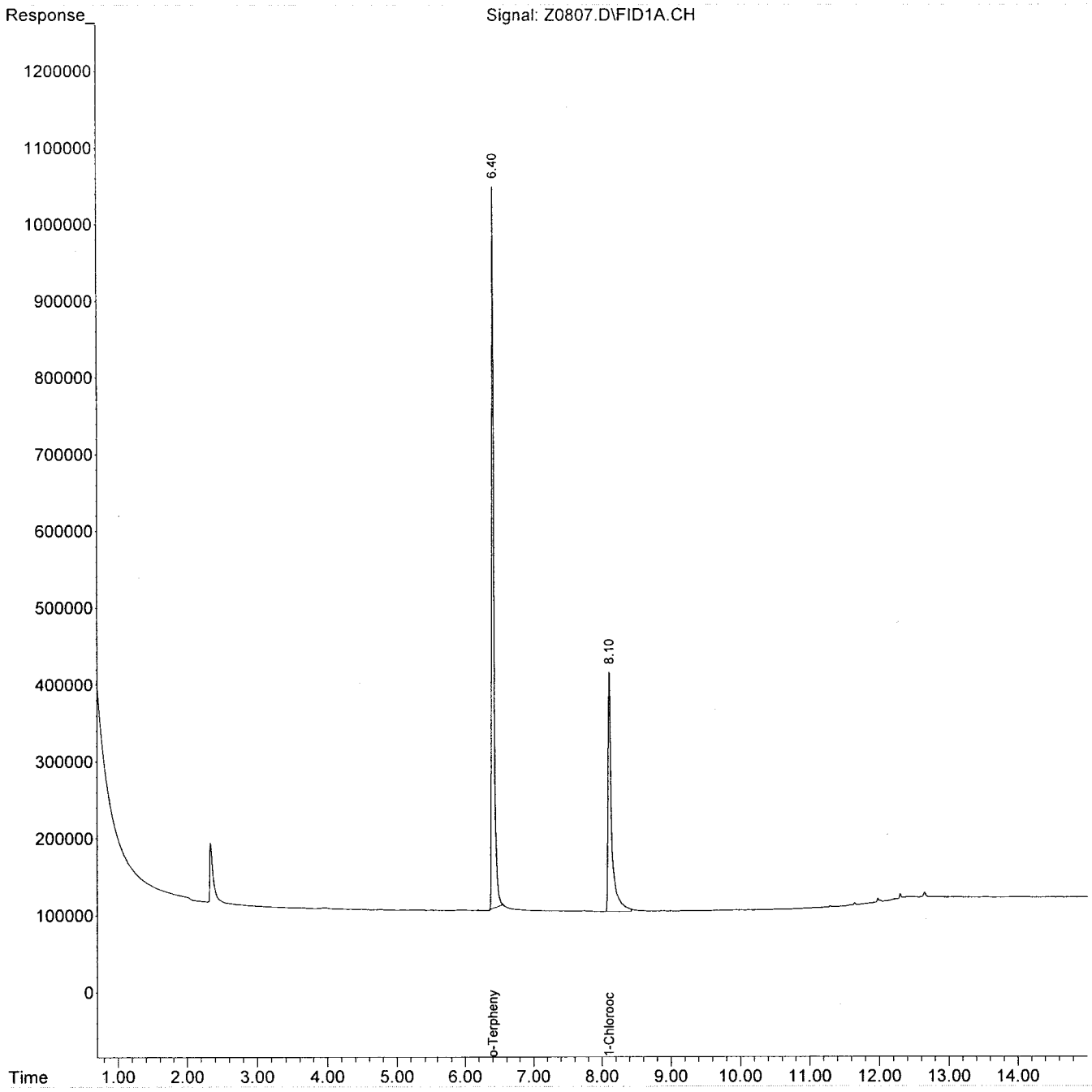
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-23-13\
Data File : Z0807.D
Signal(s) : FID1A.CH
Acq On : 23 Sep 2013 23:21
Operator : WP
Sample : NJ-EPH-C,BLKS130919-06,S,10.0g,0,09/19/13,1
Misc : 130919-06,NA,NA,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 24 10:02:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\ZEPH0905.M
Quant Title :
QLast Update : Fri Sep 06 07:07:16 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 438
SDG #: E13-08859, E13-09105, E13-09198, E13-09219, E13-09188, E13-09216, E13-09042, E13-09089
E13-09102, E13-09130

Matrix: Soil Method: 6020 Units: ppb (ug/L)

			9/19/13 13:47		9/19/13 14:07		9/19/13 14:53		9/19/13 15:39	
	INST.	ICV & CCV	ICV		CCV		CCV		CCV	
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	52.2	104	54.0	108	52.3	105	53.1	106
Antimony	0.250	50.0	50.5	101	51.7	103	52.8	106	52.9	106
Arsenic	0.250	50.0	52.4	105	54.0	108	51.9	104	54.0	108
Barium	2.50	50.0	50.9	102	51.7	103	52.9	106	53.9	108
Beryllium	0.200	50.0	52.0	104	50.9	102	50.6	101	51.7	103
Cadmium	0.125	50.0	51.6	103	51.5	103	52.6	105	54.1	108
Calcium	25.0	500	514	103	542	108	509	102	527	105
Chromium	0.500	50.0	52.9	106	55.0	110	52.1	104	54.4	109
Cobalt	0.500	50.0	52.3	105	54.1	108	52.1	104	54.1	108
Copper	0.500	50.0	52.5	105	54.7	109	52.5	105	53.9	108
Iron	12.5	500	531	106	549	110	530	106	548	110
Lead	0.125	50.0	51.2	102	50.9	102	52.3	105	53.5	107
Magnesium	12.5	500	526	105	547	109	526	105	546	109
Manganese	0.250	50.0	52.1	104	53.8	108	51.6	103	54.0	108
Mercury	0.120	5.00	4.73	94.6	4.74	94.8	4.77	95.4		
Nickel	0.500	50.0	52.8	106	54.7	109	52.6	105	54.3	109
Potassium	12.5	500	531	106	543	109	532	106	546	109
Selenium	1.00	50.0	52.9	106	53.4	107	51.5	103	54.5	109
Silver	0.125	10.0	9.66	96.6	9.57	95.7	9.19	91.9	9.41	94.1
Sodium	25.0	500	511	102	534	107	515	103	541	108
Thallium	0.125	50.0	51.8	104	52.0	104	52.4	105	54.4	109
Vanadium	0.500	50.0	52.0	104	54.3	109	51.3	103	53.2	106
Zinc	2.00	50.0	51.9	104	54.1	108	51.3	103	53.0	106

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 438
SDG #: E13-08859, E13-09105, E13-09198, E13-09219, E13-09188, E13-09216, E13-09042, E13-09089
E13-09102, E13-09130

Matrix: Soil Method: 6020 Units: ppb (ug/L)

9/19/13 16:22

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R						
					FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	52.0	104						
Antimony	0.250	50.0	54.8	110						
Arsenic	0.250	50.0	53.5	107						
Barium	2.50	50.0	54.6	109						
Beryllium	0.200	50.0	54.5	109						
Cadmium	0.125	50.0	55.0	110						
Calcium	25.0	500	526	105						
Chromium	0.500	50.0	53.7	107						
Cobalt	0.500	50.0	53.2	106						
Copper	0.500	50.0	53.1	106						
Iron	12.5	500	529	106						
Lead	0.125	50.0	54.3	109						
Magnesium	12.5	500	531	106						
Manganese	0.250	50.0	52.9	106						
Nickel	0.500	50.0	53.8	108						
Potassium	12.5	500	541	108						
Selenium	1.00	50.0	52.7	105						
Silver	0.125	10.0	9.55	95.5						
Sodium	25.0	500	526	105						
Thallium	0.125	50.0	54.0	108						
Vanadium	0.500	50.0	52.9	106						
Zinc	2.00	50.0	52.0	104						

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 439
SDG #: E13-09151, E13-09198, E13-09228, E13-09151, E13-09194, E13-09198, E13-09191, E13-09149 E13-09195

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

			9/19/13 17:25		9/19/13 18:15		9/19/13 19:05		9/19/13 19:56	
	INST.	ICV & CCV	ICV		CCV		CCV		CCV	
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	49.8	99.6	47.0	94.0	53.9	108	48.8	97.6
Antimony	0.250	50.0	51.0	102	49.4	98.8	48.9	97.8	48.3	96.6
Arsenic	0.250	50.0	48.4	96.8	46.7	93.4	52.1	104	51.2	102
Barium	2.50	50.0	48.8	97.6	48.9	97.8	50.0	100	50.2	100
Beryllium	0.250	50.0	50.1	100	49.3	98.6	48.0	96.0	46.6	93.2
Cadmium	0.125	50.0	47.9	95.8	47.5	95.0	49.1	98.2	49.1	98.2
Calcium	25.0	500	483	96.6	463	92.6	506	101	492	98.4
Chromium	0.500	50.0	47.9	95.8	46.7	93.4	51.6	103	50.6	101
Cobalt	0.500	50.0	47.9	95.8	46.7	93.4	51.8	104	50.8	102
Copper	1.00	50.0	47.2	94.4	46.0	92.0	51.0	102	50.4	101
Iron	12.5	500	491	98.2	477	95.4	535	107	518	104
Lead	0.125	50.0	48.8	97.6	48.4	96.8	49.2	98.4	48.8	97.6
Magnesium	12.5	500	488	97.6	469	93.8	527	105	517	103
Manganese	0.500	50.0	46.4	92.8	45.2	90.4	50.3	101	49.2	98.4
Mercury	0.150	5.00	4.80	96.0	4.89	97.8	4.95	99.0	5.00	100
Nickel	0.250	50.0	46.5	93.0	45.3	90.6	49.9	99.8	49.1	98.2
Potassium	12.5	500	487	97.4	466	93.2	524	105	507	101
Selenium	1.00	50.0	48.0	96.0	45.3	90.6	51.3	103	51.3	103
Silver	0.125	10.0	9.61	96.1	9.55	95.5	9.57	95.7	9.61	96.1
Sodium	25.0	500	479	95.8	462	92.4	521	104	522	104
Thallium	0.125	50.0	47.5	95.0	47.3	94.6	47.8	95.6	47.3	94.6
Vanadium	0.500	50.0	47.8	95.6	46.4	92.8	51.0	102	50.0	100
Zinc	1.00	50.0	46.7	93.4	45.3	90.6	50.6	101	49.9	99.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 439
SDG #: E13-09151, E13-09198, E13-09228, E13-09151, E13-09194, E13-09198, E13-09191, E13-09149
E13-09195

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

			9/19/13 20:46		9/19/13 21:20		9/20/13 11:46		9/20/13 13:03	
	INST.	ICV & CCV	CCV		CCV		CCV		CCV	
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	49.4	98.8	49.8	99.6	49.4	98.8	54.6	109
Antimony	0.250	50.0	48.5	97.0	49.0	98.0	53.6	107	49.0	98.0
Arsenic	0.250	50.0	50.5	101	50.6	101	48.9	97.8	54.3	109
Barium	2.50	50.0	50.1	100	50.6	101	54.4	109	50.3	101
Beryllium	0.250	50.0	46.9	93.8	47.2	94.4	52.2	104	46.0	92.0
Cadmium	0.125	50.0	50.1	100	49.4	98.8	52.7	105	48.0	96.0
Calcium	25.0	500	490	98.0	500	100	483	96.6	534	107
Chromium	0.500	50.0	49.5	99.0	50.2	100	47.8	95.6	53.0	106
Cobalt	0.500	50.0	50.0	100	50.0	100	47.8	95.6	53.0	106
Copper	1.00	50.0	49.8	99.6	49.8	99.6	49.3	98.6	54.5	109
Iron	12.5	500	513	103	514	103	493	98.6	511	102
Lead	0.125	50.0	49.4	98.8	49.2	98.4	54.2	108	50.0	100
Magnesium	12.5	500	504	101	514	103	495	99.0	546	109
Manganese	0.500	50.0	48.3	96.6	48.9	97.8	48.4	96.8	53.9	108
Nickel	0.250	50.0	48.5	97.0	48.7	97.4	49.1	98.2	54.3	109
Potassium	12.5	500	489	97.8	502	100	480	96.0	517	103
Selenium	1.00	50.0	51.0	102	50.1	100	48.7	97.4	54.4	109
Silver	0.125	10.0	9.71	97.1	9.72	97.2	10.6	106	9.67	96.7
Sodium	25.0	500	500	100	507	101	501	100	519	104
Thallium	0.125	50.0	47.7	95.4	47.8	95.6	53.6	107	49.7	99.4
Vanadium	0.500	50.0	48.7	97.4	49.4	98.8	47.4	94.8	52.9	106
Zinc	1.00	50.0	49.0	98.0	49.3	98.6	49.3	98.6	51.4	103

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 438
SDG #: E13-08859, E13-09105, E13-09198, E13-09219, E13-09188, E13-09216, E13-09042, E13-09089
E13-09102, E13-09130

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

		9/19/13 13:51	9/19/13 14:10	9/19/13 14:57	9/19/13 15:43	9/19/13 16:25	
ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	
Aluminum	0.005	ND	ND	ND	ND	ND	
Antimony	0.00025	ND	ND	ND	ND	ND	
Arsenic	0.00025	ND	ND	ND	ND	ND	
Barium	0.0025	ND	ND	ND	ND	ND	
Beryllium	0.0002	ND	ND	ND	ND	ND	
Cadmium	0.000125	ND	ND	ND	ND	ND	
Calcium	0.025	ND	ND	ND	ND	ND	
Chromium	0.0005	ND	ND	ND	ND	ND	
Cobalt	0.0005	ND	ND	ND	ND	ND	
Copper	0.0005	ND	ND	ND	ND	ND	
Iron	0.013	ND	ND	ND	ND	ND	
Lead	0.000125	ND	ND	ND	ND	ND	
Magnesium	0.013	ND	ND	ND	ND	ND	
Manganese	0.00025	ND	ND	ND	ND	ND	
Mercury	0.00012	ND	ND	ND			
Nickel	0.0005	ND	ND	ND	ND	ND	
Potassium	0.013	ND	ND	ND	ND	ND	
Selenium	0.001	ND	ND	ND	ND	ND	
Silver	0.000125	ND	ND	ND	ND	ND	
Sodium	0.025	ND	ND	ND	ND	ND	
Thallium	0.000125	ND	ND	ND	ND	ND	
Vanadium	0.0005	ND	ND	ND	ND	ND	
Zinc	0.002	ND	ND	ND	ND	ND	

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 439
SDG #: E13-09151, E13-09198, E13-09228, E13-09151, E13-09194, E13-09198, E13-09191, E13-09149
E13-09195

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

		9/19/13 17:29	9/19/13 18:19	9/19/13 19:10	9/19/13 20:00	9/19/13 20:51	9/19/13 21:24
ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	5.00	ND	ND	ND	ND	ND	ND
Antimony	0.250	ND	ND	ND	ND	ND	ND
Arsenic	0.250	ND	ND	ND	ND	ND	ND
Barium	2.50	ND	ND	ND	ND	ND	ND
Beryllium	0.250	ND	ND	ND	ND	ND	ND
Cadmium	0.125	ND	ND	ND	ND	ND	ND
Calcium	25.0	ND	ND	ND	ND	ND	ND
Chromium	0.500	ND	ND	ND	ND	ND	ND
Cobalt	0.500	ND	ND	ND	ND	ND	ND
Copper	1.00	ND	ND	ND	ND	ND	ND
Iron	12.5	ND	ND	ND	ND	ND	ND
Lead	0.125	ND	ND	ND	ND	ND	ND
Magnesium	12.5	ND	ND	ND	ND	ND	ND
Manganese	0.500	ND	ND	ND	ND	ND	ND
Mercury	0.150	ND	ND	ND	ND		
Nickel	0.250	ND	ND	ND	ND	ND	ND
Potassium	12.5	ND	ND	ND	ND	ND	ND
Selenium	1.00	ND	ND	ND	ND	ND	ND
Silver	0.125	ND	ND	ND	ND	ND	ND
Sodium	25.0	ND	ND	ND	ND	ND	ND
Thallium	0.125	ND	ND	ND	ND	ND	ND
Vanadium	0.500	ND	ND	ND	ND	ND	ND
Zinc	1.00	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 439
SDG #: E13-09151, E13-09198, E13-09228, E13-09151, E13-09194, E13-09198, E13-09191, E13-09149
E13-09195

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

		9/20/13 11:50	9/20/13 13:07				
ANALYTE	INST. MDL	CCB	CCB				
Aluminum	5.00	ND	ND				
Antimony	0.250	ND	ND				
Arsenic	0.250	ND	ND				
Barium	2.50	ND	ND				
Beryllium	0.250	ND	ND				
Cadmium	0.125	ND	ND				
Calcium	25.0	ND	ND				
Chromium	0.500	ND	ND				
Cobalt	0.500	ND	ND				
Copper	1.00	ND	ND				
Iron	12.5	ND	ND				
Lead	0.125	ND	ND				
Magnesium	12.5	ND	ND				
Manganese	0.500	ND	ND				
Nickel	0.250	ND	ND				
Potassium	12.5	ND	ND				
Selenium	1.00	ND	ND				
Silver	0.125	ND	ND				
Sodium	25.0	ND	ND				
Thallium	0.125	ND	ND				
Vanadium	0.500	ND	ND				
Zinc	1.00	ND	ND				

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

09/19/2013 01:55 PM

Batch (Page) #: 438
Associated Lab Case for Blank 1: E13-08859, E13-09042, E13-09089, E13-09102, E13-09105, E13-09130, E13-09188, E13-09198, E13-09216, E13-09219

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK BLKS130919-01
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 1:
08859-023,025; 09042-003,005,009; 09089-001
09102-001; 09105-001~003; 09130-001~003; 09188-001
09198-003; 09216-006~009; 09219-001

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

09/19/2013 06:02 PM

Batch (Page) #: 439
Associated Lab Case for Blank 1: E13-09151, E13-09191, E13-09194, E13-09198, E13-09228

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK BLKA130919-01
Aluminum	20.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	1.00	ND
Cadmium	0.500	ND
Calcium	100	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	4.00	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	2.00	ND
Mercury	0.300	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	4.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.500	ND
Vanadium	2.00	ND
Zinc	4.00	ND

Associated Sample for Blank 1:
09151-005,008,010~016; 09191-001~002; 09194-001
09194-002~004; 09198-005~008; 09228-008

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Instrument: Agilent7500
Batch (Page) #: 438
SDG #: E13-08859, E13-09105, E13-09198, E13-09219, E13-09188, E13-09216, E13-09042, E13-09
E13-09102, E13-09130

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	64400	60900	60.9	NA
Calcium	100000	-	67000	63400	63.4	NA
Iron	100000	-	66200	62900	62.9	NA
Potassium	100000	-	64700	61400	61.4	NA
Magnesium	100000	-	63000	59400	59.4	NA
Sodium	100000	-	64700	61800	61.8	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	1820	1750	87.5	NA
Titanium	2000	-	1390	1320	66.0	NA
Silver	-	20.0	-	16.2	81.0	80-120
Arsenic	-	20.0	-	17.2	86.0	80-120
Cadmium	-	20.0	-	16.8	84.0	80-120
Cobalt	-	20.0	-	16.5	82.5	80-120
Chromium	-	20.0	-	16.5	82.5	80-120
Copper	-	20.0	-	16.3	81.5	80-120
Manganese	-	20.0	-	16.0	80.0	80-120
Nickel	-	20.0	-	16.5	82.5	80-120
Zinc	-	20.0	-	16.6	83.0	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Instrument: Agilent7700
Batch (Page) #: 439
SDG #: E13-09151, E13-09198, E13-09228, E13-09151, E13-09194, E13-09198, E13-09191, E13-09
E13-09195

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	74100	74900	74.9	NA
Calcium	100000	-	74600	75800	75.8	NA
Iron	100000	-	73900	74900	74.9	NA
Potassium	100000	-	74400	75200	75.2	NA
Magnesium	100000	-	73200	74100	74.1	NA
Sodium	100000	-	73800	74500	74.5	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	1760	1740	87.0	NA
Titanium	2000	-	1580	1600	80.0	NA
Silver	-	20.0	-	19.7	98.5	80-120
Arsenic	-	20.0	-	19.9	99.5	80-120
Cadmium	-	20.0	-	18.7	93.5	80-120
Cobalt	-	20.0	-	19.3	96.5	80-120
Chromium	-	20.0	-	19.1	95.5	80-120
Copper	-	20.0	-	18.1	90.5	80-120
Manganese	-	20.0	-	20.5	103	80-120
Nickel	-	20.0	-	18.7	93.5	80-120
Zinc	-	20.0	-	19.9	99.5	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 438
SDG #: E13-08859, E13-09042, E13-09089, E13-09102, E13-09105, E13-09130, E13-09188
E13-09198, E13-09216, E13-09219

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	LCSS130919-01 TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	192	96.0			
Antimony	40.0	36.9	92.3			
Arsenic	40.0	36.4	91.0			
Barium	40.0	35.8	89.5			
Beryllium	40.0	34.8	87.0			
Cadmium	40.0	35.7	89.3			
Calcium	200	176	88.0			
Chromium	40.0	35.9	89.8			
Cobalt	40.0	38.1	95.3			
Copper	40.0	36.4	91.0			
Iron	200	210	105			
Lead	40.0	38.9	97.3			
Magnesium	200	190	95.0			
Manganese	40.0	37.8	94.5			
Mercury	0.250	0.256	102			
Nickel	40.0	36.9	92.3			
Potassium	200	184	92.0			
Selenium	40.0	36.1	90.3			
Silver	40.0	35.0	87.5			
Sodium	200	180	90.0			
Thallium	40.0	39.1	97.8			
Vanadium	40.0	38.2	95.5			
Zinc	40.0	35.8	89.5			

(1) Control Limits % Recovery = 85-115%

LCSS130919-01 9/19/13 13:59

08859-023,025; 09042-003,005,009; 09089-001
09102-001; 09105-001~003; 09130-001~003; 09188-001
09198-003; 09216-006~009; 09219-001

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 439
SDG #: E13-09151, E13-09191, E13-09194, E13-09198, E13-09228, E13-09149, E13-09195

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	LCSA130919-01			LCSA130919-02		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	400	383	95.8			
Antimony	400	386	96.5			
Arsenic	400	385	96.3			
Barium	400	385	96.3			
Beryllium	400	388	97.0			
Cadmium	400	373	93.3			
Calcium	8000	7440	93.0			
Chromium	400	380	95.0			
Cobalt	400	383	95.8			
Copper	400	383	95.8			
Iron	8000	7570	94.6	8000	7730	96.6
Lead	400	380	95.0	400	383	95.8
Magnesium	8000	7360	92.0			
Manganese	400	380	95.0			
Mercury	10.0	9.42	94.2			
Nickel	400	384	96.0			
Potassium	8000	7350	91.9			
Selenium	400	378	94.5			
Silver	400	352	88.0			
Sodium	8000	7350	91.9			
Thallium	400	386	96.5			
Vanadium	400	383	95.8			
Zinc	400	382	95.5			

(1) Control Limits % Recovery = 85-115%

LCSA130919-01 9/19/13 18:06
09151-005,008,010~016; 09191-001~002; 09194-001
09194-002~004; 09198-005~008; 09228-008

LCSA130919-02 9/19/13 20:21
09149-001~003; 09195-001~004

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 438

SDG #: E13-08859, E13-09042, E13-09089, E13-09102, E13-09105, E13-09130, E13-09188
E13-09198, E13-09216, E13-09219

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	9/19/13 14:22 SSR1	9/19/13 14:03 SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	3000	2820	85.7	210					75-125
Antimony	38.7	ND	92.1	42.0					75-125
Arsenic	41.0	2.79	91.0	42.0					75-125
Barium	49.3	11.8	89.3	42.0					75-125
Beryllium	36.4	ND	86.7	42.0					75-125
Cadmium	37.2	ND	88.6	42.0					75-125
Calcium	270	77.3	91.8	210					75-125
Chromium	46.1	8.83	88.7	42.0					75-125
Cobalt	40.2	ND	95.7	42.0					75-125
Copper	55.1	16.7	91.4	42.0					75-125
Iron	3530	3420	NC	210					75-125
Lead	52.7	14.0	92.1	42.0					75-125
Magnesium	442	246	93.3	210					75-125
Manganese	45.7	6.28	93.9	42.0					75-125
Mercury	0.304	0.097	78.7	0.263					75-125
Nickel	39.6	0.706	92.6	42.0					75-125
Potassium	697	505	91.4	210					75-125
Selenium	38.5	ND	91.7	42.0					75-125
Silver	34.5	ND	82.1	42.0					75-125
Sodium	343	143	95.2	210					75-125
Thallium	40.0	ND	95.2	42.0					75-125
Vanadium	44.8	5.09	94.5	42.0					75-125
Zinc	46.7	8.97	89.8	42.0					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Spike sample concentration > 4 x Spike Concentration.

QC Sample 1: E13-08859-023
% Solids: 95.3
QC Sample 1 for following samples:
08859-023,025; 09042-003,005,009; 09089-001
09102-001; 09105-001~003; 09130-001~003; 09188-001
09198-003; 09216-006~009; 09219-001

QC Sample 2: _____
% Solids: _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 439
SDG #: E13-09151, E13-09191, E13-09194, E13-09198, E13-09228, E13-09149, E13-09195

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	9/19/13 18:32 SSR1	9/19/13 18:11 SR1	%R1	SA1	9/19/13 20:38 SSR2	9/19/13 20:26 SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	565	190	93.8	400					75-125
Antimony	384	ND	96.0	400					75-125
Arsenic	380	1.92	94.5	400					75-125
Barium	502	105	99.3	400					75-125
Beryllium	378	ND	94.5	400					75-125
Cadmium	382	ND	95.5	400					75-125
Calcium	92100	80300	NC	8000					75-125
Chromium	369	ND	92.3	400					75-125
Cobalt	370	ND	92.5	400					75-125
Copper	375	ND	93.8	400					75-125
Iron	10600	3070	94.1	8000	33700	27000	83.8	8000	75-125
Lead	389	1.78	96.8	400	385	1.20	96.0	400	75-125
Magnesium	15200	7780	92.8	8000					75-125
Manganese	696	312	96.0	400					75-125
Mercury	9.01	ND	90.1	10.0					75-125
Nickel	370	ND	92.5	400					75-125
Potassium	12500	5190	91.4	8000					75-125
Selenium	373	ND	93.3	400					75-125
Silver	357	ND	89.3	400					75-125
Sodium	34300	25900	105	8000					75-125
Thallium	389	ND	97.3	400					75-125
Vanadium	376	3.46	93.1	400					75-125
Zinc	381	6.76	93.6	400					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Spike sample concentration > 4 x Spike Concentration.

QC Sample 1: E13-09151-005
% Solids: 0
QC Sample 1 for following samples:
09151-005,008,010~016; 09191-001~002; 09194-001
09194-002~004; 09198-005~008; 09228-008

QC Sample 2: E13-09149-001
% Solids: 0
QC Sample 2 for following samples:
09149-001~003; 09195-001~004

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 438

SDG #: E13-08859, E13-09042, E13-09089, E13-09102, E13-09105, E13-09130, E13-09188 E13-09198, E13-09216, E13-09219

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	9/19/13 14:03 S1	9/19/13 14:14 D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	2820	2890	2.45				
Antimony	NA	ND	ND	NC				
Arsenic	20	2.79	2.75	1.44				
Barium	20	11.8	12.1	2.51				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	77.3	71.1	8.36				
Chromium	20	8.83	8.82	0.113				
Cobalt	NA	ND	ND	NC				
Copper	20	16.7	16.7	0				
Iron	20	3420	3400	0.587				
Lead	20	14.0	14.5	3.51				
Magnesium	20	246	247	0.406				
Manganese	20	6.28	6.24	0.639				
Mercury	20	0.097	0.097	0				
Nickel	20	0.706	0.794	11.7				
Potassium	20	505	506	0.198				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	143	142	0.702				
Thallium	NA	ND	ND	NC				
Vanadium	20	5.09	5.07	0.394				
Zinc	20	8.97	9.36	4.26				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1: E13-08859-023
% Solids: 95.3
QC Sample 1 for following samples:
08859-023,025; 09042-003,005,009; 09089-001
09102-001; 09105-001~003; 09130-001~003; 09188-001
09198-003; 09216-006~009; 09219-001

QC Sample 2: _____
% Solids: _____
QC Sample 2 for following samples:

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 439

SDG #: E13-09151, E13-09191, E13-09194, E13-09198, E13-09228, E13-09149, E13-09195

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	9/19/13 18:11 S1	9/19/13 18:23 D1	RPD1	CONTROL LIMIT 2	9/19/13 20:26 S2	9/19/13 20:30 D2	RPD2
Aluminum	20	190	213	11.4				
Antimony	NA	ND	ND	NC				
Arsenic	20	1.92	1.82	5.35				
Barium	20	105	106	0.948				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	80300	87800	8.92				
Chromium	NA	ND	ND	NC				
Cobalt	NA	ND	ND	NC				
Copper	NA	ND	ND	NC				
Iron	20	3070	3360	9.02	20	27000	25800	4.55
Lead	20	1.78	1.93	8.09	20	1.20	1.18	1.68
Magnesium	20	7780	8510	8.96				
Manganese	20	312	343	9.47				
Mercury	NA	ND	ND	NC				
Nickel	NA	ND	ND	NC				
Potassium	20	5190	5680	9.02				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	25900	28200	8.50				
Thallium	NA	ND	ND	NC				
Vanadium	20	3.46	3.22	7.19				
Zinc	20	6.76	7.16	5.75				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1: E13-09151-005
% Solids: 0
QC Sample 1 for following samples:
09151-005,008,010~016; 09191-001~002; 09194-001
09194-002~004; 09198-005~008; 09228-008

QC Sample 2: E13-09149-001
% Solids: 0
QC Sample 2 for following samples:
09149-001~003; 09195-001~004

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 438
SDG #: E13-08859, E13-09042, E13-09089, E13-09102, E13-09105, E13-09130, E13-09188
E13-09198, E13-09216, E13-09219

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION 9/19/13 14:03 SR	SERIAL DILUTION 9/19/13 14:18 SDR	% Difference	POST SPIKE 9/19/13 14:26 SPR	POST SPIKE SA	% Recovery
Aluminum	2820	2940	4.17			
Antimony	ND	ND	NC	43.7	42.0	104
Arsenic	2.79	2.80	0.358	44.5	42.0	99.3
Barium	11.8	ND	NC	54.5	42.0	102.0
Beryllium	ND	ND	NC	39.4	42.0	93.8
Cadmium	ND	ND	NC	39.9	42.0	95.0
Calcium	77.3	ND	NC	1020	840	112.0
Chromium	8.83	8.82	0.113	50.0	42.0	98.0
Cobalt	ND	ND	NC	41.8	42.0	99.5
Copper	16.7	16.5	1.20			
Iron	3420	3620	5.68			
Lead	14.0	14.7	4.88			
Magnesium	246	261	5.92			
Manganese	6.28	6.29	0.159			
Nickel	0.706	ND	NC	42.1	42.0	98.6
Potassium	505	504	0.198			
Selenium	ND	ND	NC	41.1	42.0	97.9
Silver	ND	ND	NC	35.4	42.0	84.3
Sodium	143	141	1.41	1080	840	112.0
Thallium	ND	ND	NC	43.4	42.0	103
Vanadium	5.09	5.08	0.197	46.6	42.0	98.8
Zinc	8.97	ND	NC	49.8	42.0	97.2

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1: E13-08859-023
QC Sample 1 for following samples:
08859-023,025; 09042-003,005,009; 09089-001
09102-001; 09105-001~003; 09130-001~003; 09188-001
09198-003; 09216-006~009; 09219-001

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 439
SDG #: E13-09151, E13-09191, E13-09194, E13-09198, E13-09228

Matrix: Aqueous Concentration/Units: ppb (µg/L)

	SERIAL DILUTION			POST SPIKE		
ANALYTE	9/19/13 18:11 SR	9/19/13 18:28 SDR	% Difference	9/19/13 18:36 SPR	SA	% Recovery
Aluminum	190	194	2.08	634	400	111.0
Antimony	ND	ND	NC	383	400	95.8
Arsenic	1.92	ND	NC	429	400	107.0
Barium	105	104	0.957	507	400	101.0
Beryllium	ND	ND	NC	381	400	95.3
Cadmium	ND	ND	NC	389	400	97.3
Calcium	80300	88500	9.72			
Chromium	ND	ND	NC	416	400	104
Cobalt	ND	ND	NC	421	400	105
Copper	ND	ND	NC	423	400	106
Iron	3070	3000	2.31			
Lead	1.78	ND	NC	391	400	97.3
Magnesium	7780	8580	9.78			
Manganese	312	336	7.41			
Nickel	ND	ND	NC	418	400	105
Potassium	5190	5180	0.193			
Selenium	ND	ND	NC	429	400	107
Silver	ND	ND	NC	356	400	89.0
Sodium	25900	27900	7.43			
Thallium	ND	ND	NC	395	400	98.8
Vanadium	3.46	ND	NC	423	400	105.0
Zinc	6.76	ND	NC	434	400	107.0

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1: E13-09151-005
QC Sample 1 for following samples:
09151-005,008,010~016; 09191-001~002; 09194-001
09194-002~004; 09198-005~008; 09228-008

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG438
September 19, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.D	STD BLANK	1569665		74769		463601		2708397		3964610		2209033		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Sample Lower Limit	1098766	70	52338	70	324521	70	1895878	70	2775227	70	1546323	70	
	QC Lower Limit	1255732	80	59815	80	370881	80	2166718	80	3171688	80	1767226	80	
	Sample & QC Upper Limit	1883598	120	89723	120	556321	120	3250076	120	4757532	120	2650840	120	
005CALS.D	STD1	1564893	100	75377	101	464704	100	2725169	101	3952863	100	2185328	99	
006CALS.D	STD2	1580412	101	77124	103	455802	98	2715742	100	3927058	99	2219219	100	
007CALS.D	STD3	1620937	103	75301	101	453352	98	2652845	98	3937673	99	2195371	99	
008CALS.D	STD4	1583431	101	74665	100	456474	98	2604169	96	3897381	98	2177768	99	
010ICSA.D	ICSA	1271853	81	84390	113	554023	120	2186712	81	3484761	88	1659637	75	
011ICSB.D	ICSAB	1327851	85	86946	116	546916	118	2185676	81	3591933	91	1754111	79	
013_ICV.D	ICV	1622879	103	76894	103	463556	100	2738933	101	4058747	102	2273726	103	
014_ICB.D	ICB	1709975	109	78304	105	464440	100	2747585	101	4002330	101	2271698	103	
015SMPL.D	BLKS130919-01	1675543	107	80889	108	474922	102	2758930	102	4011953	101	2259576	102	
016SMPL.D	LCSS130919-01	1715314	109	77297	103	468365	101	2716616	100	4033530	102	2217205	100	
017SMPL.D	E13-08859-023	1726118	110	78606	105	484482	105	2808926	104	4161097	105	2296093	104	
0186CCV.D	CCV	1725376	110	76908	103	474364	102	2772590	102	4060292	102	2290759	104	
0196CCB.D	CCB	1777829	113	78084	104	478710	103	2828440	104	4081567	103	2324728	105	
020SMPL.D	E13-08859-023DUP	1704604	109	79676	107	474074	102	2715700	100	3974582	100	2261954	102	
021SMPL.D	E13-08859-023SD	1746192	111	78785	105	480917	104	2831448	105	4073613	103	2282400	103	
022SMPL.D	E13-08859-023MS	1753210	112	80590	108	489646	106	2836091	105	4185618	106	2335790	106	
023SMPL.D	E13-08859-023PS	1738020	111	80091	107	486328	105	2726890	101	4055737	102	2245239	102	
024SMPL.D	E13-08859-025	1731919	110	80865	108	474894	102	2724094	101	3985211	101	2256414	102	
025SMPL.D	E13-09105-001	1745730	111	85851	115	527071	114	2723651	101	4186344	106	2230972	101	
026SMPL.D	E13-09105-002	1762200	112	85442	114	523570	113	2716129	100	4087229	103	2209921	100	
027SMPL.D	E13-09105-003	1737550	111	88424	118	527524	114	2688416	99	4159303	105	2173617	98	
028SMPL.D	E13-09198-003	1705435	109	85742	115	513885	111	2678228	99	4079814	103	2200763	100	
029SMPL.D	E13-09219-001	1676592	107	84291	113	492026	106	2653594	98	4007124	101	2136546	97	
0306CCV.D	CCV	1756940	112	78712	105	466344	101	2771228	102	4014936	101	2251282	102	
0316CCB.D	CCB	1716821	109	78161	105	471239	102	2756596	102	3969206	100	2256375	102	
032SMPL.D	E13-09188-001	1705421	109	82031	110	500656	108	2712520	100	4165538	105	2229603	101	
033SMPL.D	E13-09216-006	1704805	109	82021	110	491105	106	2714258	100	3958962	100	2214122	100	
034SMPL.D	E13-09216-007	1708403	109	83491	112	512680	111	2741076	101	4087985	103	2233467	101	
035SMPL.D	E13-09216-008	1697072	108	83699	112	512016	110	2681354	99	4040653	102	2193862	99	
036SMPL.D	E13-09216-009	1655773	105	78523	105	491685	106	2658027	98	3950630	100	2180972	99	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

E13-09198 0461

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG438
September 19, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
004CALB.D	STD BLANK	1569665		74769		463601		2708397		3964610		2209033		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
	Sample Lower Limit	1098766	70	52338	70	324521	70	1895878	70	2775227	70	1546323	70	
	QC Lower Limit	1255732	80	59815	80	370881	80	2166718	80	3171688	80	1767226	80	
	Sample & QC Upper Limit	1883598	120	89723	120	556321	120	3250076	120	4757532	120	2650840	120	
037SMPL.D	E13-09042-003	1684143	107	78583	105	490083	106	2737657	101	4060802	102	2209393	100	
038SMPL.D	E13-09042-005	1751510	112	83464	112	517206	112	2853632	105	4152789	105	2258296	102	
039SMPL.D	E13-09042-009	1776050	113	83429	112	527345	114	2915321	108	4270536	108	2268296	103	
040SMPL.D	E13-09089-001	1762801	112	**92105**	**123**	**600530**	**130**	2891895	107	4196635	106	2216503	100	A
041SMPL.D	E13-09102-001	1671476	106	75326	101	457592	99	2670491	99	3920828	99	2235832	101	
0426CCV.D	CCV	1655799	105	72426	97	438626	95	2590010	96	3827871	97	2188171	99	
0436CCB.D	CCB	1723394	110	76301	102	457554	99	2719324	100	4017881	101	2237648	101	
044SMPL.D	E13-09130-001	1723341	110	78885	106	480382	104	2775770	102	4090608	103	2283102	103	
045SMPL.D	E13-09130-002	1725492	110	80720	108	507323	109	2866679	106	4123475	104	2289021	104	
046SMPL.D	E13-09130-003	1777274	113	84359	113	531019	115	3009503	111	4295090	108	2346388	106	
047SMPL.D	E13-09105-003	1691255	108	77757	104	470472	101	2708560	100	4022175	101	2247244	102	
048SMPL.D	E13-09198-003	1725444	110	78181	105	478782	103	2780642	103	4054585	102	2303874	104	
049SMPL.D	E13-09089-001	1736270	111	80093	107	492254	106	2835901	105	4046484	102	2258792	102	
050SMPL.D	E-13-09099-001	1641865	105	80488	108	477978	103	2764091	102	3987994	101	2193656	99	
051SMPL.D	E-13-09099-002	1591167	101	80004	107	468121	101	2711649	100	3948735	100	2158532	98	
052SMPL.D	E-13-09099-003	1576945	100	78955	106	474271	102	2756161	102	4023980	101	2195883	99	
0536CCV.D	FINAL CCV	1653319	105	77751	104	470428	101	2751343	102	4072633	103	2247493	102	
0546CCB.D	FINAL CCB	1630586	104	78776	105	466533	101	2744523	101	3924510	99	2215914	100	

Note: Internal Standards failed, no affected data was reported from this analysis.

E13-09198 04622

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG439
September 19, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
002CALB.d	BLANK	1045228		111557		655070		3506596		3718901		1934082		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
Sample Lower Limit		731660	70	78090	70	458549	70	2454617	70	2603231	70	1353857	70	
QC Lower Limit		836182	80	89246	80	524056	80	2805277	80	2975121	80	1547266	80	
Sample & QC Upper Limit		1254274	120	133868	120	786084	120	4207915	120	4462681	120	2320898	120	
003CALS.d	STD1	1038063	99	109787	98	653656	100	3515952	100	3738484	101	1935500	100	
004CALS.d	STD2	1046690	100	119614	107	660879	101	3503375	100	3775354	102	1937472	100	
005CALS.d	STD3	1060572	101	104724	94	659376	101	3489834	100	3789741	102	1974953	102	
006CALS.d	STD4	1065368	102	110504	99	646939	99	3472258	99	3929381	106	2099483	109	
008_LQV.d	LLQV	1030652	99	107288	96	623140	95	3327058	95	3681273	99	1989541	103	
011ICSA.d	ICSA	1020494	98	110409	99	686519	105	3180447	91	3936703	106	1921430	99	
012ICSB.d	ICSAB	1035969	99	109993	99	697361	106	3237576	92	3930984	106	1933910	100	
026_CCV.d	ICV	1028666	98	118884	107	684288	104	3626113	103	3927908	106	2057766	106	
027_CCB.d	ICB	1012336	97	110859	99	669095	102	3579009	102	3835311	103	2031235	105	
035SMPL.d	BLKA130919-01	994197	95	104634	94	658801	101	3500288	100	3831329	103	2040741	106	
036SMPL.d	LCSA130919-01	1027305	98	106734	96	679831	104	3540523	101	3923205	105	2048979	106	
037SMPL.d	E13-09151-005	1028417	98	115418	103	691100	106	3472637	99	3972842	107	2078829	107	
038_CCV.d	CCV	1034562	99	117794	106	671146	102	3584603	102	3984711	107	2113366	109	
039_CCB.d	CCB	1025458	98	107699	97	666948	102	3550107	101	3857201	104	2050186	106	
040SMPL.d	E13-09151-005DUP	1030223	99	104589	94	667834	102	3449734	98	3980739	107	2121178	110	
041SMPL.d	E13-09151-005SD	1049924	100	106529	95	663116	101	3502670	100	3979025	107	2120379	110	
042SMPL.d	E13-09151-005MS	1038128	99	106627	96	658733	101	3441893	98	4006119	108	2108841	109	
043SMPL.d	E13-09151-005PS	1042703	100	93999	84	652801	100	3445006	98	4026902	108	2120592	110	
044SMPL.d	E13-09151-008	1082581	104	114028	102	652896	100	3534003	101	3978526	107	2163595	112	
045SMPL.d	E13-09151-010	1073126	103	105264	94	663395	101	3553834	101	3995361	107	2147784	111	
046SMPL.d	E13-09198-008	1075199	103	109126	98	659587	101	3555804	101	3961280	107	2154283	111	
047SMPL.d	E13-09228-008	1077296	103	122151	109	666123	102	3585860	102	3975281	107	2132560	110	
048SMPL.d	E13-09151-011	1055498	101	101009	91	676465	103	3512958	100	4067311	109	2154798	111	
049SMPL.d	E13-09151-012	1038520	99	103326	93	667988	102	3412944	97	3989136	107	2097164	108	
050_CCV.d	CCV	1085291	104	105275	94	654278	100	3568294	102	4067120	109	2182480	113	
051_CCB.d	CCB	1080180	103	103702	93	652612	100	3554487	101	4028331	108	2193794	113	
052SMPL.d	E13-09151-013	1045589	100	104552	94	666893	102	3373531	96	3951997	106	2053943	106	
054SMPL.d	E13-09151-015	1089282	104	104944	94	665003	102	3499224	100	4030268	108	2186089	113	
055SMPL.d	E13-09151-016	1085180	104	99288	89	662479	101	3495449	100	4037094	109	2204709	114	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

E13-09198
04633

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG439
September 19, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
002CALB.d	BLANK	1045228		111557		655070		3506596		3718901		1934082		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
Sample Lower Limit		731660	70	78090	70	458549	70	2454617	70	2603231	70	1353857	70	
QC Lower Limit		836182	80	89246	80	524056	80	2805277	80	2975121	80	1547266	80	
Sample & QC Upper Limit		1254274	120	133868	120	786084	120	4207915	120	4462681	120	2320898	120	
056SMPL.d	E13-09194-001	1053399	101	103439	93	648025	99	3330600	95	3997432	107	2081746	108	
057SMPL.d	E13-09194-002	1084296	104	105941	95	668442	102	3478082	99	4032499	108	2158307	112	
058SMPL.d	E13-09194-003	1086327	104	104832	94	667593	102	3430862	98	4022599	108	2114850	109	
059SMPL.d	E13-09194-004	1107686	106	105387	94	675406	103	3507527	100	4031584	108	2192007	113	
060SMPL.d	E13-09198-005	1059065	101	102846	92	651727	99	3328030	95	4026426	108	2076683	107	
061SMPL.d	E13-09198-006	1075041	103	102194	92	647468	99	3306228	94	4028991	108	2092682	108	
062_CCV.d	CCV	1129355	108	104572	94	652403	100	3547833	101	4095863	110	2234623	116	
063_CCB.d	CCB	1244329	119	104528	94	725564	111	4102792	117	4061053	109	2262416	118	
064SMPL.d	E13-09198-007	1091430	104	98154	88	656960	100	3353257	96	4029681	108	2143945	111	
065SMPL.d	E13-09191-001	1083648	104	100224	90	667262	102	3419407	98	4091047	110	2201286	114	
066SMPL.d	E13-09191-002	1091955	104	99650	89	652638	100	3511221	100	4108216	110	2292174	119	
067SMPL.d	BLKA130919-02	1125075	108	102986	92	649456	99	3551637	101	4127681	111	2270387	117	
068SMPL.d	LCSA130919-02	1113056	106	98617	88	651479	99	3505912	100	4061702	109	2203687	114	
069SMPL.d	E13-09149-001	1078411	103	100811	90	657455	100	3484732	99	4055022	109	2220189	115	
070SMPL.d	E13-09149-001DUP	1076727	103	104594	94	656472	100	3490777	100	4083967	110	2237206	116	
071SMPL.d	E13-09149-001SD	1095316	105	103386	93	648561	99	3490919	100	4072307	110	2241695	116	
072SMPL.d	E13-09149-001MS	1058962	101	102401	92	657275	100	3462030	99	4048592	109	2199623	114	
073SMPL.d	E13-09149-001PS	1067547	102	97833	88	653239	100	3448331	98	4069186	109	2193760	113	
074_CCV.d	CCV	1095988	105	103332	93	640757	98	3503017	100	4060563	109	2221033	115	
075_CCB.d	CCB	1107544	106	99509	89	643586	98	3509824	100	4048882	109	2247756	116	
076SMPL.d	E13-09149-002	1082955	104	101059	91	652238	100	3464027	99	4064480	109	2270798	117	
077SMPL.d	E13-09149-003	1079598	103	101632	91	656926	100	3466841	99	4072437	110	2234318	116	
078SMPL.d	E13-09195-001	1077864	103	101798	91	652367	100	3440908	98	4071725	109	2195958	114	
079SMPL.d	E13-09195-002	1087260	104	99706	89	644662	98	3349998	96	4060440	109	2156713	112	
080SMPL.d	E13-09195-003	1105661	106	104127	93	660439	101	3414888	97	4039577	109	2174032	112	
081SMPL.d	E13-09195-004	1103554	106	102250	92	657397	100	3458678	99	4072480	110	2200395	114	
082_CCV.d	FINAL CCV	1121319	107	106902	96	649831	99	3494047	100	4014266	108	2186739	113	
083_CCB.d	FINAL CCB	1137129	109	109574	98	652229	100	3552767	101	4044977	109	2190891	113	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

E13-09198 0464

METALS INTERNAL STANDARD AREA SUMMARY
2013 PG439
September 19, 2013
Method: 6020

	ISTD	Li-6 [2]		Ge-72 [1]		Ge-72 [2]		Rh-103 [2]		Tb-159 [2]		Bi-209 [2]		
002CALB.d	BLANK	1102002		110598		688856		3635152		3748289		1901840		
		Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	Area Count	% Rec	
Sample Lower Limit		771401	70	77419	70	482199	70	2544606	70	2623802	70	1331288	70	
QC Lower Limit		881602	80	88478	80	551085	80	2908122	80	2998631	80	1521472	80	
Sample & QC Upper Limit		1322402	120	132718	120	826627	120	4362182	120	4497947	120	2282208	120	
003CALS.d	STD1	1104546	100	111637	101	694398	101	3708756	102	3796721	101	1932404	102	
004CALS.d	STD2	1119190	102	110883	100	690882	100	3658965	101	3818667	102	1968774	104	
005CALS.d	STD3	1133632	103	111540	101	690397	100	3704809	102	3922653	105	1990377	105	
006CALS.d	STD4	1152506	105	106499	96	658785	96	3595438	99	3905986	104	2163429	114	
009_ICV.d	CCV	1065546	97	99754	90	618670	90	3446217	95	3858421	103	2055339	108	
010_ICB.d	CCB	1150273	104	92250	83	661099	96	3628531	100	3939992	105	2136706	112	
020SMPL.d	E13-09151-014	1157452	105	106597	96	669857	97	3501341	96	4012837	107	2124621	112	
021_CCV.d	CCV	1161754	105	93521	85	657672	95	3589906	99	3992357	107	2168048	114	
022_CCB.d	CCB	1166040	106	102637	93	656191	95	3636257	100	4060250	108	2199811	116	

E13-09198 04655

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 70-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 80-120% of reference Standard (CAL BLANK L1)
[1] = [He]; [2] = [No Gas]

GENERAL ANALYTICAL CHEMISTRY

E13-09198 0466

GENERAL ANALYTICAL CHEMISTRY QC SUMMARY

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

Cyanide, Total

Matrix: Aqueous
Unit: mg/L

Batch: AP013-0134
Method: 335.4

Date: 09/27/2013

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	BLKA130927	< 0.005	NA	NA	NA	NA	NA
LCS (mg/L)	ICV.001	0.263	0.25	NA	NA	105	90-110
SAMPLE	E13-09464-004	< 0.005	NA	NA	NA	NA	NA
DUP	E13-09464-004D	< 0.005	NA	NC	20	NA	NA
MS	E13-09464-004S	0.264	0.25	NA	NA	106	75-125
MSD	E13-09464-004SD	0.264	0.25	0	20	106	75-125

The above blank result applies to the follow samples:

E13-09464-004
E13-09198-007
E13-09213-001
E13-09234-002
E13-09234-006
E13-09234-017
E13-09234-018
E13-09464-001

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

INTEGRATED ANALYTICAL LABORATORIES, LLC.

INITIAL & CONTINUING CALIBRATION VERIFICATION

Cyanide, Total

Batch: AP013-0134	Date & Time: 09/27/2013 15:25
Method: 335.4	Analyst: Andrew O'Brien

	True Value	Result (mg/L)	% REC
BLKA130927		< 0.005	

	True Value	Result (mg/L)	% REC
ICV.001	0.250	0.263	105
CCV.003	0.250	0.263	105
CCV.017	0.250	0.265	106
CCV.020	0.250	0.264	106

SAMPLE TRACKING

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER	REPORTING INFO
Company: EWMA	REPORT TO:
Address:	Address:
Telephone #:	Attn:
Fax #:	FAX #
Project Manager: Anthony Kaufman	INVOICE TO:
Sampler: CB	Address:
Project Name: 50 Division Ave.	
Project Location (State): NJ	
Bottle Order #:	Attn:
Quote # : 208322	PO #

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

SEE BELOW (under comments section for explanation)

Verbal/Fax 24 hr* 48 hr* 72 hr* 1 wk* 2 wk/Std

Hard Copy 3 wk/Std

Other *call for price

Results needed by:

Rush TAT Charge **: 24 hr - 100%... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only; Reduced; Regulatory - 15% Surcharge applies; Other (describe)

DISKETTE: SRP. dbf format; SRP.wk1 format; lab approved custom EDD; NO DISK/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS

 # BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOC	BN	Metals	PCBs	Pest/Herb	EPH	TCL/TAL+20	Fingerprint	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
AOC-9-1	0-.5	9-18-13	1313	S	1	1				X											1	
AOC-9-2	1		1318		1	2				X											1	
AOC-12-3	1.5-2		1215		4	3	X	X	X	X	X	X									1	3
AOC-12-4	2-2.5		1200		1	4						X									1	
AOC-7-2			1148	AQ	6	5	X	X	X		X				2		1				3	
AOC-7-4			1127		6	6	X	X	X		X			X	2		1				3	
Ex. Well			1356		12	7							X		4	1	1				6	
FB			1200		6	8	X	X	X		X				2		1				3	
TB			0700		2	9	X								2							

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

MDL Req: Old GWQS - 11/05 GWQS - SCC - OTHER (SEE COMMENTS)

Signature/Company	Date	Time	Signature/Company
Relinquished by:	9-18-13	1555	Received by:
Relinquished by:	9/18/13	16:25	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2
QAM-025 (OQA-QAM025) - used for: all other fuel oils and unknown contamination

Lab Case # 09198

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

01/2007 rev

Ref No: G 393600198

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

E13-09198: 50 DIVISION AVE. - 208322

To: Anthony Kaufman
EWMA - HQ
Fax: 1(973) 560-0400
EMail: anthony.kaufman@ewma.com

Report To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Anthony Kaufman

Bill To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Anthony Kaufman

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced		Sep 18, 2013 @ 16:25	NA	Oct 02, 2013	Oct 09, 2013 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

**** QC Requirement (must meet):** NJ GWQS/IGW

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
09198-001	AOC-9-1	0/0.5	09/18/13@13:15	Soil	mg/Kg (ppm)	
09198-002	AOC-9-2	0/0.5	09/18/13@13:18	Soil	mg/Kg (ppm)	
09198-003	AOC-12-3	1.5/2	09/18/13@12:15	Soil	mg/Kg (ppm)	
09198-004	AOC-12-4	2/2.5	09/18/13@12:00	Soil	mg/Kg (ppm)	
09198-005	AOC-7-2	NA	09/18/13@11:48	Aqueous	ug/L (ppb)	
09198-006	AOC-7-4	NA	09/18/13@11:27	Aqueous	ug/L (ppb)	
09198-007	EX. WELL	NA	09/18/13@13:56	Aqueous	ug/L (ppb)	
09198-008	FB	NA	09/18/13@12:00	Aqueous	ug/L (ppb)	
09198-009	TB	NA	09/18/13	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL PCB	Analyze	8082	STD/2 WKS	10/2/2013
002	TCL PCB	Analyze	8082	STD/2 WKS	10/2/2013
003	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/2/2013
	TCL BN + 15	Analyze	8270C	STD/2 WKS	10/2/2013
	TCL PCB	Analyze	8082	STD/2 WKS	10/2/2013
	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	STD/2 WKS	10/2/2013
	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/2/2013
	Herbicides	Analyze	8151A	STD/2 WKS	10/2/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	10/2/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/16/2013
004	NJ-EPH-C40	Analyze	Method 10.08 Rev 3	STD/2 WKS	10/2/2013

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PROJECT INFORMATION

E13-09198: 50 DIVISION AVE. - 208322

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
004	NJ-EPH-Fractionated	Cancel	Method 10.08 Rev 3	STD/2 WKS	10/2/2013
005	TCL VO minus 1,4 Dioxane + 15	Analyze	8260B/8011	STD/2 WKS	10/2/2013
	TCL BN + SIMS + 15 + 1,4-Dioxane	Analyze	8270C SIM	STD/2 WKS	9/25/2013
	Herbicides	Analyze	8151A	STD/2 WKS	9/25/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	9/25/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/16/2013
006	TCL VO minus 1,4 Dioxane + 15	Analyze	8260B/8011	STD/2 WKS	10/2/2013
	TCL BN + SIMS + 15 + 1,4-Dioxane	Analyze	8270C SIM	STD/2 WKS	9/25/2013
	Herbicides	Analyze	8151A	STD/2 WKS	9/25/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	9/25/2013
	GC Fingerprint	Analyze	8015B M	STD/2 WKS	9/25/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/16/2013
007	TCL VO minus 1,4 Dioxane + 15	Analyze	8260B/8011	STD/2 WKS	10/2/2013
	TCL BNA + SIMS + 15 + 1,4-Dioxane	Analyze	8270C SIM	STD/2 WKS	9/25/2013
	TCL Pesticides	Analyze	8081A	STD/2 WKS	9/25/2013
	TCL PCB	Analyze	8082	STD/2 WKS	9/25/2013
	TAL Metals	Analyze	6020/7471A	STD/2 WKS	10/16/2013
	Cyanide, Total	Analyze	335.4	STD/2 WKS	10/2/2013
008	TCL VO minus 1,4 Dioxane + 15	Cancel	8260B/8011	STD/2 WKS	10/2/2013
	TCL BN + SIMS + 15 + 1,4-Dioxane	Cancel	8270C SIM	STD/2 WKS	9/25/2013
	Herbicides	Cancel	8151A	STD/2 WKS	9/25/2013
	TCL Pesticides	Cancel	8081A	STD/2 WKS	9/25/2013
	TAL Metals	Cancel	6020/7471A	STD/2 WKS	10/16/2013
009	TCL VO + 15	Analyze	8260B	STD/2 WKS	10/2/2013

Project Notes:

NOTE 1 taken by Ellen on 09/19/2013 10:11
AS PER ANTHONY K., REPORT TCL LISTS & FOR EPH RUN AS EPH-C40. 8011 REQUIRED FOR VO.

NOTE 2 taken by Ellen on 09/19/2013 10:11
3 ENCORS RECEIVED - 1 INTO MEOH/2 INTO H2O

REV 1 taken by kim on 09/19/2013 05:05
CANCEL SAMPLE 008 (FB) PER ANTHONY KAUFMAN.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 13** **09198** CLIENT: EWMA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

KEY
✓ = YES/NA
✗ = NO

VOA received: ✓ Encore ☐ IGW - Methanol
(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 9/18/13

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☐

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 9.19.13

Laboratory Custody Chronicle

IAL Case No. E13-09198

Client EWMA - HQ

Project 50 DIVISION AVE. - 208322

Received On 9/18/2013@16:25

Department: Volatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL VO + 15	09198-003	Soil	n/a	n/a	9/24/13	Xing
"	-009	Aqueous	n/a	n/a	9/20/13	Barbara
TCL VO minus 1,4 Dioxane + 15	-005	Aqueous	n/a	n/a	9/20/13	Barbara
"	-006	"	n/a	n/a	9/20/13	Barbara
"	-007	"	n/a	n/a	9/20/13	Barbara

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL BN + 15	-003	Soil	9/19/13	Kou-Liang	9/19/13	Eleanor
TCL BN + SIMS + 15 + 1,4-Dioxane	-005	Aqueous	9/20/13	Kou-Liang	9/24/13	JC
"	-006	"	9/20/13	Kou-Liang	9/24/13	JC
TCL BNA + SIMS + 15 + 1,4-Dioxane	-007	Aqueous	9/20/13	Kou-Liang	9/24/13	JC

Department: GC			Prep. Date	Analyst	Analysis Date	Analyst
GC Fingerprint	-006	Aqueous	9/20/13	Archimede	9/25/13	Jamie
Herbicides	-003	Soil	9/26/13	Archimede	9/30/13	Justyna
"	-005	Aqueous	9/25/13	Archimede	9/27/13	Justyna
"	-006	"	9/25/13	Archimede	9/27/13	Justyna
NJ-EPH-C40	-003	Soil	9/19/13	Archimede	9/24/13	William
"	-004	"	9/19/13	Archimede	9/24/13	William
TCL PCB	-001	Soil	9/23/13	Archimede	9/23/13	Justyna
"	-002	"	9/23/13	Archimede	9/23/13	Justyna
"	-003	"	9/23/13	Archimede	9/23/13	Justyna
"	-007	Aqueous	9/23/13	Archimede	9/24/13	Justyna
TCL Pesticides	-003	Soil	9/23/13	Archimede	9/25/13	Iwona
"	-005	Aqueous	9/23/13	Archimede	9/25/13	Iwona
"	-006	"	9/23/13	Archimede	9/25/13	Iwona
"	-007	"	9/23/13	Archimede	9/25/13	Iwona

Department: Metals			Prep. Date	Analyst	Analysis Date	Analyst
TAL Metals	-003	Soil	9/19/13	Lisa	9/19/13	Danielle
"	-005	Aqueous	9/19/13	Lisa	9/19/13	RPittenger
"	-006	"	9/19/13	Lisa	9/19/13	RPittenger
"	-007	"	9/19/13	Lisa	9/19/13	RPittenger

Department: Wet Chemistry			Prep. Date	Analyst	Analysis Date	Analyst
Cyanide, Total	-007	Aqueous	n/a	n/a	9/27/13	Andrew

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IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: **50 DIVISION**
IAL Case Number: **E15-02637**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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Integrated Analytical Laboratories - Table of Contents

Sample Summary

IAL Case No.

E15-02637

Client EWMA - HQ

Project 50 DIVISION

Received On 4/ 3/2015@16:45

Lab ID	***Client Sample ID***	***Depth Top/Bottom***	***Sampling Time***	***Matrix***	***# of Container***
02637-001	M-1R(11-30)	n/a	4/ 2/2015@08:27	Aqueous	5

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DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicates analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL or for qualification of tentatively identified compounds.

N Presumptive evidence of a compound from the use of GC/MS library search.

X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.

Z Indicates internal standard failure. Sample results are either biased high or biased low.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E15-02637

Integrated Analytical Laboratories, LLC. received one (1) sample from EWMA - HQ (IAL SDG# **E15-02637**, Project: 50 DIVISION) on April 3, 2015 for the analysis of :

(1) TCL VO + 15
(1) TCL BN + SIMS + 15

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C	**Batch: 150410**	**Matrix: Aqueous**
QC	- Calibration curve met QC criteria.	
	- Internal standards recovery met QC criteria.	
	- Surrogate percent recovery met QC criteria.	
	- Method blank met QC criteria.	
	- LCS percent recovery met QC criteria.	
	- MS/MSD RPD met QC criteria.	
	- MS/MSD percent recovery met QC criteria.	
E15-02637	- All samples were analyzed within holding time.	
	- no dilution needed.	

Semivolatiles By 8270D SIM	**Batch: 150406-04**	**Matrix: Aqueous**
QC	- Calibration curve met QC criteria.	
	- Internal standard recovery me QC criteria.	
	- Surrogate recovery met QC criteria.	
	- Method blank met QC criteria. NJDEP DKQP criteria not met.	
	- LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.	
	- MS/MSD RPD met QC criteria.	
	- MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.	
E15-02637	- Extraction holding time met requirement for each sample.	
	- Analysis holding time met requirement for each sample.	
	- All samples were analyzed as a straight run and no further dilutions were required.	

The result reported for 1,2-Diphenylhydrazine is also representative of Azobenzene. 1,2-Diphenylhydrazine rapidly decomposes to Azobenzene when exposed to water or heat. Analytical results from analysis of 1,2-Diphenylhydrazine will be directly compared to the applicable criteria for Azobenzene and/or 1,2-Diphenylhydrazine.

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

4/17/2015
Date

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Integrated Analytical Laboratories
Client: Environmental Waste Management Associates, LLC.
Project Location: 50 DIVISION
IAL Project #: E15-02637
IAL Sample ID(s): E15-02637-001
Sampling Date(s): 4/2/2015

List of DKQP Method Used:
TCL VO by 8260C
TCL BN + SIMS by 8270D SIM

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "

		YES	NO	N/A
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP	X		
1A	Were the method specified handling, preservation, and holding time requirements met?	X		
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)			X
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?		X	
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?		X	
5B	Were these reporting limits met?			X
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?		X	

RESULTS SUMMARY REPORT

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION
Lab Case No.: E15-02637

Lab ID:	**02637-001**		
Client ID:	**M-1R(11-30)**		
Matrix:	**Aqueous**		
Sampled Date	**4/2/15**		
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)		*(ug/L)*	
Benzene	0.637	J	0.388
Trichloroethene	2.04		0.357
Toluene	0.714	J	0.370
Tetrachloroethene	7.34		0.495
TOTAL VO's:	10.7	J	
TOTAL TIC's:	57.7	JN	
TOTAL VO's & TIC's:	68.4	JN	
Semivolatiles - BN (Units)		*(ug/L)*	
Caprolactam	1.53		0.232
1,1'-Biphenyl	0.348	J	0.105
Acenaphthene	3.99		0.122
Dibenzofuran	1.28		0.123
Fluorene	2.47		0.176
Phenanthrene	4.44		0.111
Anthracene	1.23		0.155
Carbazole	1.27		0.119
Fluoranthene	0.783	J	0.118
Pyrene	0.646	J	0.142
Bis(2-ethylhexyl) phthalate	2.56		0.429
TOTAL BN'S:	20.5	J	
TOTAL TIC's:	15.3	CJN	
TOTAL BN'S & TIC's:	35.8	CJN	

J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
C = Common Laboratory and/or Bottle Contaminant.
N = Presumptive evidence of a compound from the use of GC/MS library search.

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 02637-001
Client ID: M-1R(11-30)
Date Received: 04/03/2015
Date Analyzed: 04/10/2015
Data file: G3161.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	0.637	J	1.00	0.388
Trichloroethene	2.04		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 02637-001
Client ID: M-1R(11-30)
Date Received: 04/03/2015
Date Analyzed: 04/10/2015
Data file: G3161.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	0.714	J	1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	7.34		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
Total Target Compounds (52):	10.7	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 02637-001
Client ID: M-1R(11-30)
Date Received: 04/03/2015
Date Analyzed: 04/10/2015
Date File: G3161.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000091-20-3	Naphthalene	57.7	JN	15.80

Total TICs = 57.7 JN

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E15-02637-001
Client ID: M-1R(11-
Date Received: 04/03/2015
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
Data file: B8706.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.237
Bis(2-chloroethyl) ether	ND		1.00	0.131
Bis(2-chloroisopropyl) ether	ND		1.00	0.127
N-Nitrosodi-n-propylamine	ND		1.00	0.186
Acetophenone	ND		1.00	0.144
Hexachloroethane	ND		1.00	0.150
Nitrobenzene	ND		1.00	0.124
Isophorone	ND		1.00	0.127
Bis(2-chloroethoxy) methane	ND		1.00	0.113
Naphthalene	ND		1.00	0.123
4-Chloroaniline	ND		1.00	0.135
Hexachlorobutadiene	ND		1.00	0.167
Caprolactam	1.53		1.00	0.232
2-Methylnaphthalene	ND		1.00	0.112
Hexachlorocyclopentadiene	ND		1.00	0.158
1,1'-Biphenyl	0.348	J	1.00	0.105
2-Chloronaphthalene	ND		1.00	0.256
2-Nitroaniline	ND		1.00	0.202
Dimethyl phthalate	ND		1.00	0.131

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E15-02637-001
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Date Received: 04/03/2015
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
Data file: B8706.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.207
Acenaphthylene	ND		1.00	0.107
3-Nitroaniline	ND		1.00	0.156
Acenaphthene	3.99		1.00	0.122
2,4-Dinitrotoluene	ND		1.00	0.164
Dibenzofuran	1.28		1.00	0.123
Diethyl phthalate	ND		1.00	0.127
Fluorene	2.47		1.00	0.176
4-Chlorophenyl phenyl ether	ND		1.00	0.133
4-Nitroaniline	ND		1.00	0.193
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.222
N-Nitrosodiphenylamine	ND		1.00	0.117
4-Bromophenyl phenyl ether	ND		1.00	0.182
Hexachlorobenzene	ND		1.00	0.188
Atrazine	ND		1.00	0.259
Phenanthrene	4.44		1.00	0.111
Anthracene	1.23		1.00	0.155
Carbazole	1.27		1.00	0.119
Di-n-butyl phthalate	ND		1.00	0.177
Fluoranthene	0.783	J	1.00	0.118
Pyrene	0.646	J	1.00	0.142
Butyl benzyl phthalate	ND		1.00	0.245
3,3'-Dichlorobenzidine	ND		1.00	0.197
Benzo[a]anthracene	ND		1.00	0.109
Chrysene	ND		1.00	0.149
Bis(2-ethylhexyl) phthalate	2.56		1.00	0.429
Di-n-octyl phthalate	ND		1.00	0.175
Benzo[b]fluoranthene	ND		1.00	0.220
Benzo[k]fluoranthene	ND		1.00	0.289
Benzo[a]pyrene	ND		1.00	0.176
Indeno[1,2,3-cd]pyrene	ND		1.00	0.238
Dibenz[a,h]anthracene	ND		1.00	0.217
Benzo[g,h,i]perylene	ND		1.00	0.183
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.207
Total Target Compounds (53):	20.5	J		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve
B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E15-02637-001
Client ID: M-1R(11-
Date Received: 04/03/2015
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
Date File: B8706.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
000541-02-6	Cyclopentasiloxane, decamethyl-	5.90	CJN	4.14
	Unknown SV	9.40	J	4.76

Total TICs = 15.3 CJN

D --- Dilution Performed
J --- Estimated concentration for TICs
N --- Presumptive evidence of a compound from the use of GC/MS NIST library search
B --- Compound detected in Blank

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 04/10/2015

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA150410a	AQUEOUS	G3144.D	107	99	100
02713-2DL	AQUEOUS	G3145.D	106	99	100
02518-1DL	AQUEOUS	G3146.D	107	98	100
02469-4DL	AQUEOUS	G3147.D	109	98	101
02469-005	AQUEOUS	G3148.D	111	97	102
02469-8DL	AQUEOUS	G3149.D	107	98	102
02469-12DL	AQUEOUS	G3150.D	109	99	102
02469-3DL	AQUEOUS	G3152.D	110	99	101
02469-6DL	AQUEOUS	G3154.D	106	98	100
02631-001	AQUEOUS	G3155.D	108	97	99
02631-002	AQUEOUS	G3156.D	109	99	99
02600-001	AQUEOUS	G3157.D	110	99	101
02625-006	AQUEOUS	G3160.D	118	99	100
02637-001	AQUEOUS	G3161.D	119	99	101
02613-001	AQUEOUS	G3162.D	118	102	105
LCSA150410a	AQUEOUS	G3164.D	85	72	72

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	59-138	43-133
SMC2 = Toluene-d8	50 ppb	70-130	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	70-130	42-152	45-145

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

D Surrogate diluted out

M Matrix interference

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 04/13/2015

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA150413a	AQUEOUS	G3170.D	115	100	101
02469-5DL	AQUEOUS	G3171.D	114	99	101
02469-11DL	AQUEOUS	G3172.D	115	99	101
02469-14DL	AQUEOUS	G3173.D	106	99	89
02619-001	AQUEOUS	G3174.D	113	98	103
02608-005	AQUEOUS	G3175.D	113	98	100
02608-006	AQUEOUS	G3176.D	109	99	97
02608-001	AQUEOUS	G3177.D	119	99	101
02608-002	AQUEOUS	G3178.D	120	101	100
02608-003	AQUEOUS	G3179.D	119	100	101
02608-004	AQUEOUS	G3180.D	118	99	101
02691-001	AQUEOUS	G3181.D	124	99	105
02702-001	AQUEOUS	G3182.D	117	101	100
02702-002	AQUEOUS	G3183.D	126	100	100
02702-003	AQUEOUS	G3184.D	122	101	103
02702-004	AQUEOUS	G3185.D	121	102	101
02702-005	AQUEOUS	G3186.D	121	101	103
LCSA150413a	AQUEOUS	G3187.D	118	106	110
2702-001MS	AQUEOUS	G3188.D	115	103	107
2702-001MSD	AQUEOUS	G3189.D	115	103	106
2702-002MS	AQUEOUS	G3190.D	114	103	107
2702-002MSD	AQUEOUS	G3191.D	111	102	106

	Concentration	DKQPs	Leachate Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	59-138	43-133
SMC2 = Toluene-d8	50 ppb	70-130	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	70-130	42-152	45-145

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSA150410a
Date Received: NA
Date Analyzed: 04/10/2015
LCS Data file: G3164.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.	#
Dichlorodifluoromethane	50.0	0.0	64.6	129	
Chloromethane	50.0	0.0	54.6	109	
Vinyl chloride	50.0	0.0	58.3	117	
Bromomethane	50.0	0.0	65.0	130	
Chloroethane	50.0	0.0	58.1	116	
Trichlorofluoromethane	50.0	0.0	58.1	116	
Acrolein	150	0.0	139.6	93	
1,1-Dichloroethene	50.0	0.0	57.0	114	
Acetone	50.0	0.0	45.2	90	
Carbon disulfide	50.0	0.0	56.1	112	
Vinyl acetate	50.0	0.0	39.3	79	
Methylene chloride	50.0	0.0	54.3	109	
Acrylonitrile	150.0	0.0	162.8	109	
tert-Butyl alcohol (TBA)	100.0	0.0	112.3	112	
trans-1,2-Dichloroethene	50.0	0.0	56.1	112	
Methyl tert-butyl ether (MTBE)	50.0	0.0	59.8	120	
1,1-Dichloroethane	50.0	0.0	57.4	115	
Diisopropyl ether (DIPE)	50.0	0.0	57.0	114	
cis-1,2-Dichloroethene	50.0	0.0	58.9	118	
2,2-Dichloropropane	50.0	0.0	49.7	99	
2-Butanone (MEK)	50.0	0.0	61.1	122	
Bromochloromethane	50.0	0.0	59.2	118	
Chloroform	50.0	0.0	60.5	121	
1,1,1-Trichloroethane	50.0	0.0	60.7	121	
Carbon tetrachloride	50.0	0.0	62.5	125	
1,1-Dichloropropene	50.0	0.0	55.4	111	
1,2-Dichloroethane (EDC)	50.0	0.0	61.8	124	
Benzene	50.0	0.0	56.6	113	
Trichloroethene	50.0	0.0	60.7	121	
1,2-Dichloropropane	50.0	0.0	57.7	115	
Dibromomethane	50.0	0.0	59.5	119	
1,4-Dioxane	1500	0.0	1828	122	
Bromodichloromethane	50.0	0.0	58.7	117	
2-Chloroethyl vinyl ether	50.0	0.0	54.8	110	
cis-1,3-Dichloropropene	50.0	0.0	57.5	115	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	57.5	115	
Toluene	50.0	0.0	54.8	110	
trans-1,3-Dichloropropene	50.0	0.0	58.0	116	
1,1,2-Trichloroethane	50.0	0.0	55.4	111	
Tetrachloroethene	50.0	0.0	51.9	104	
1,3-Dichloropropane	50.0	0.0	57.3	115	

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150410a
Date Received: NA
Date Analyzed: 04/10/2015
LCS Data file: G3164.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#
2-Hexanone	50.0	0.0	64.2	128	
Dibromochloromethane	50.0	0.0	56.0	112	
1,2-Dibromoethane (EDB)	50.0	0.0	57.4	115	
Chlorobenzene	50.0	0.0	53.9	108	
1,1,1,2-Tetrachloroethane	50.0	0.0	58.3	117	
Ethylbenzene	50.0	0.0	55.1	110	
m,p-Xylene	100.0	0.0	107.9	108	
o-Xylene	50.0	0.0	56.1	112	
Styrene	50.0	0.0	58.0	116	
Bromoform	50.0	0.0	51.8	104	
Isopropylbenzene	50.0	0.0	55.3	111	
1,1,2,2-Tetrachloroethane	50.0	0.0	47.0	94	
Bromobenzene	50.0	0.0	54.7	109	
1,2,3-Trichloropropane	50.0	0.0	54.1	108	
n-Propylbenzene	50.0	0.0	53.2	106	
2-Chlorotoluene	50.0	0.0	55.0	110	
1,3,5-Trimethylbenzene	50.0	0.0	55.5	111	
4-Chlorotoluene	50.0	0.0	55.0	110	
tert-Butylbenzene	50.0	0.0	55.9	112	
1,2,4-Trimethylbenzene	50.0	0.0	55.4	111	
sec-Butylbenzene	50.0	0.0	53.6	107	
1,3-Dichlorobenzene	50.0	0.0	53.1	106	
4-Isopropyltoluene	50.0	0.0	54.3	109	
1,4-Dichlorobenzene	50.0	0.0	53.5	107	
n-Butylbenzene	50.0	0.0	50.3	101	
1,2-Dichlorobenzene	50.0	0.0	53.0	106	
1,2-Dibromo-3-chloropropane	50.0	0.0	53.2	106	
1,2,4-Trichlorobenzene	50.0	0.0	55.4	111	
Hexachlorobutadiene	50.0	0.0	51.1	102	
Naphthalene	50.0	0.0	62.2	124	
1,2,3-Trichlorobenzene	50.0	0.0	57.7	115	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	51.7	103	
Methyl acetate	50.0	0.0	56.7	113	
Cyclohexane	50.0	0.0	51.4	103	
Methylcyclohexane	50.0	0.0	50.0	100	

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150410a
Date Received: NA
Date Analyzed: 04/10/2015
LCS Data file: G3164.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSA150413a
Date Received: NA
Date Analyzed: 04/13/2015
LCS Data file: G3187.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.	#
Dichlorodifluoromethane	50.0	0.0	57.2	114	
Chloromethane	50.0	0.0	50.8	102	
Vinyl chloride	50.0	0.0	55.1	110	
Bromomethane	50.0	0.0	53.3	107	
Chloroethane	50.0	0.0	56.5	113	
Trichlorofluoromethane	50.0	0.0	47.0	94	
Acrolein	150	0.0	139.9	93	
1,1-Dichloroethene	50.0	0.0	56.4	113	
Acetone	50.0	0.0	54.8	110	
Carbon disulfide	50.0	0.0	57.6	115	
Vinyl acetate	50.0	0.0	50.3	101	
Methylene chloride	50.0	0.0	48.6	97	
Acrylonitrile	150.0	0.0	152.1	101	
tert-Butyl alcohol (TBA)	100.0	0.0	88.0	88	
trans-1,2-Dichloroethene	50.0	0.0	51.4	103	
Methyl tert-butyl ether (MTBE)	50.0	0.0	50.0	100	
1,1-Dichloroethane	50.0	0.0	51.9	104	
Diisopropyl ether (DIPE)	50.0	0.0	49.4	99	
cis-1,2-Dichloroethene	50.0	0.0	51.0	102	
2,2-Dichloropropane	50.0	0.0	59.9	120	
2-Butanone (MEK)	50.0	0.0	42.1	84	
Bromochloromethane	50.0	0.0	50.3	101	
Chloroform	50.0	0.0	56.5	113	
1,1,1-Trichloroethane	50.0	0.0	61.7	123	
Carbon tetrachloride	50.0	0.0	64.1	128	
1,1-Dichloropropene	50.0	0.0	52.3	105	
1,2-Dichloroethane (EDC)	50.0	0.0	57.5	115	
Benzene	50.0	0.0	49.3	99	
Trichloroethene	50.0	0.0	49.3	99	
1,2-Dichloropropane	50.0	0.0	49.2	98	
Dibromomethane	50.0	0.0	50.8	102	
1,4-Dioxane	1500	0.0	1403	94	
Bromodichloromethane	50.0	0.0	56.7	113	
2-Chloroethyl vinyl ether	50.0	0.0	38.2	76	
cis-1,3-Dichloropropene	50.0	0.0	50.4	101	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	42.3	85	
Toluene	50.0	0.0	49.3	99	
trans-1,3-Dichloropropene	50.0	0.0	51.8	104	
1,1,2-Trichloroethane	50.0	0.0	47.2	94	
Tetrachloroethene	50.0	0.0	48.1	96	
1,3-Dichloropropane	50.0	0.0	49.0	98	

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150413a
Date Received: NA
Date Analyzed: 04/13/2015
LCS Data file: G3187.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#
2-Hexanone	50.0	0.0	46.1	92	
Dibromochloromethane	50.0	0.0	53.9	108	
1,2-Dibromoethane (EDB)	50.0	0.0	48.8	98	
Chlorobenzene	50.0	0.0	45.7	91	
1,1,1,2-Tetrachloroethane	50.0	0.0	51.1	102	
Ethylbenzene	50.0	0.0	48.8	98	
m,p-Xylene	100.0	0.0	94.9	95	
o-Xylene	50.0	0.0	48.7	97	
Styrene	50.0	0.0	50.0	100	
Bromoform	50.0	0.0	47.4	95	
Isopropylbenzene	50.0	0.0	50.6	101	
1,1,2,2-Tetrachloroethane	50.0	0.0	44.2	88	
Bromobenzene	50.0	0.0	47.5	95	
1,2,3-Trichloropropane	50.0	0.0	44.9	90	
n-Propylbenzene	50.0	0.0	49.8	100	
2-Chlorotoluene	50.0	0.0	50.1	100	
1,3,5-Trimethylbenzene	50.0	0.0	51.2	102	
4-Chlorotoluene	50.0	0.0	50.1	100	
tert-Butylbenzene	50.0	0.0	51.1	102	
1,2,4-Trimethylbenzene	50.0	0.0	51.0	102	
sec-Butylbenzene	50.0	0.0	50.5	101	
1,3-Dichlorobenzene	50.0	0.0	47.6	95	
4-Isopropyltoluene	50.0	0.0	50.8	102	
1,4-Dichlorobenzene	50.0	0.0	47.1	94	
n-Butylbenzene	50.0	0.0	48.6	97	
1,2-Dichlorobenzene	50.0	0.0	46.4	93	
1,2-Dibromo-3-chloropropane	50.0	0.0	44.3	89	
1,2,4-Trichlorobenzene	50.0	0.0	44.8	90	
Hexachlorobutadiene	50.0	0.0	47.7	95	
Naphthalene	50.0	0.0	43.0	86	
1,2,3-Trichlorobenzene	50.0	0.0	42.6	85	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	55.8	112	
Methyl acetate	50.0	0.0	40.5	81	
Cyclohexane	50.0	0.0	46.9	94	
Methylcyclohexane	50.0	0.0	46.9	94	

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150413a
Date Received: NA
Date Analyzed: 04/13/2015
LCS Data file: G3187.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260

MS/MSD SPIKE REPORT

Lab ID: 02702-001
Client ID: MW-1/11.90
Date Received: NA
Date Analyzed: 04/13/2015
MS Data file: G3188.D
MSD Data file: G3189.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50.0	0.0	62.4	125		57.8	116		8	
Chloromethane	50.0	0.0	52.7	105		51.6	103		2	
Vinyl chloride	50.0	0.0	56.2	112		53.8	108		4	
Bromomethane	50.0	0.0	58.6	117		58.2	116		1	
Chloroethane	50.0	0.0	58.2	116		56.1	112		4	
Trichlorofluoromethane	50.0	0.0	48.6	97		56.7	113		15	
Acrolein	150	0.0	143	95		130	87		10	
1,1-Dichloroethene	50.0	0.0	56.3	113		52.3	105		7	
Acetone	50.0	0.0	58.1	116		58.4	117		1	
Carbon disulfide	50.0	0.0	57.6	115		54.2	108		6	
Vinyl acetate	50.0	0.0	49.5	99		49.5	99		0	
Methylene chloride	50.0	0.0	50.0	100		48.0	96		4	
Acrylonitrile	150	0.0	163	109		154	103		6	
tert-Butyl alcohol (TBA)	100	0.0	75.2	75		84.2	84		11	
trans-1,2-Dichloroethene	50.0	0.0	52.0	104		48.9	98		6	
Methyl tert-butyl ether (MTBE)	50.0	0.0	52.3	105		52.2	104		0	
1,1-Dichloroethane	50.0	0.0	53.3	107		50.9	102		5	
Diisopropyl ether (DIPE)	50.0	0.0	51.9	104		50.9	102		2	
cis-1,2-Dichloroethene	50.0	0.0	53.1	106		50.6	101		5	
2,2-Dichloropropane	50.0	0.0	55.7	111		54.7	109		2	
2-Butanone (MEK)	50.0	0.0	45.6	91		48.3	97		6	
Bromochloromethane	50.0	0.0	52.4	105		50.8	102		3	
Chloroform	50.0	0.0	57.7	115		54.6	109		6	
1,1,1-Trichloroethane	50.0	0.0	60.9	122		57.6	115		6	
Carbon tetrachloride	50.0	0.0	63.7	127		58.6	117		8	
1,1-Dichloropropene	50.0	0.0	52.6	105		49.5	99		6	
1,2-Dichloroethane (EDC)	50.0	0.0	59.1	118		57.3	115		3	
Benzene	50.0	0.0	51.1	102		48.6	97		5	
Trichloroethene	50.0	0.0	50.5	101		48.0	96		5	
1,2-Dichloropropane	50.0	0.0	50.7	101		49.2	98		3	
Dibromomethane	50.0	0.0	52.6	105		51.4	103		2	
1,4-Dioxane	1,500	0.0	1137	76		1170	78		3	
Bromodichloromethane	50.0	0.0	58.1	116		55.3	111		5	
2-Chloroethyl vinyl ether	50.0	0.0	0.0	0	*$	0.0	0	*$	NC	*$
cis-1,3-Dichloropropene	50.0	0.0	52.8	106		51.6	103		2	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	44.1	88		45.8	92		4	
Toluene	50.0	0.0	50.0	100		47.6	95		5	
trans-1,3-Dichloropropene	50.0	0.0	54.0	108		53.1	106		2	
1,1,2-Trichloroethane	50.0	0.0	48.3	97		48.0	96		1	
Tetrachloroethene	50.0	0.0	48.0	96		44.9	90		7	
1,3-Dichloropropane	50.0	0.0	50.5	101		49.8	100			

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 02702-001
Client ID: MW-1/11.90
Date Received: NA
Date Analyzed: 04/13/2015
MS Data file: G3188.D
MSD Data file: G3189.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50.0	0.0	47.9	96		50.2	100		5	
Dibromochloromethane	50.0	0.0	55.5	111		52.8	106		5	
1,2-Dibromoethane (EDB)	50.0	0.0	49.8	100		49.4	99		1	
Chlorobenzene	50.0	0.0	48.0	96		45.8	92		5	
1,1,1,2-Tetrachloroethane	50.0	0.0	54.5	109		51.9	104		5	
Ethylbenzene	50.0	0.0	50.6	101		47.8	96		6	
m,p-Xylene	100	0.0	98.1	98		93.1	93		5	
o-Xylene	50.0	0.0	50.8	102		48.0	96		6	
Styrene	50.0	0.0	51.9	104		49.6	99		5	
Bromoform	50.0	0.0	49.7	99		47.9	96		4	
Isopropylbenzene	50.0	0.0	51.7	103		48.4	97		7	
1,1,2,2-Tetrachloroethane	50.0	0.0	46.1	92		45.3	91		2	
Bromobenzene	50.0	0.0	49.2	98		47.3	95		4	
1,2,3-Trichloropropane	50.0	0.0	46.5	93		46.4	93		0	
n-Propylbenzene	50.0	0.0	50.3	101		47.2	94		6	
2-Chlorotoluene	50.0	0.0	51.4	103		47.1	94		9	
1,3,5-Trimethylbenzene	50.0	0.0	52.2	104		49.0	98		6	
4-Chlorotoluene	50.0	0.0	51.4	103		47.1	94		9	
tert-Butylbenzene	50.0	0.0	52.4	105		49.0	98		7	
1,2,4-Trimethylbenzene	50.0	0.0	52.3	105		49.0	98		7	
sec-Butylbenzene	50.0	0.0	50.7	101		47.2	94		7	
1,3-Dichlorobenzene	50.0	0.0	48.9	98		46.5	93		5	
4-Isopropyltoluene	50.0	0.0	51.2	102		48.0	96		6	
1,4-Dichlorobenzene	50.0	0.0	48.9	98		46.5	93		5	
n-Butylbenzene	50.0	0.0	48.7	97		44.9	90		8	
1,2-Dichlorobenzene	50.0	0.0	48.1	96		46.3	93		4	
1,2-Dibromo-3-chloropropane	50.0	0.0	45.9	92		46.4	93		1	
1,2,4-Trichlorobenzene	50.0	0.0	46.9	94		45.9	92		2	
Hexachlorobutadiene	50.0	0.0	48.8	98		45.6	91		7	
Naphthalene	50.0	0.0	46.3	93		47.9	96		3	
1,2,3-Trichlorobenzene	50.0	0.0	45.3	91		46.1	92		2	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	51.6	103		48.5	97		6	
Methyl acetate	50.0	0.0	44.9	90		50.3	101		11	
Cyclohexane	50.0	0.0	45.4	91		41.8	84		8	
Methylcyclohexane	50.0	0.0	45.0	90		42.2	84		6	

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 02702-001
Client ID: MW-1/11.90
Date Received: NA
Date Analyzed: 04/13/2015
MS Data file: G3188.D
MSD Data file: G3189.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G3144.D Instrument ID: MSD_G

Date Analyzed: 04/10/2015 Time Analyzed: 10:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-6	02713-2DL	04/10/2015	10:54
MWF-25D	02518-1DL	04/10/2015	11:22
MW_13D/18	02469-4DL	04/10/2015	11:50
MW_14/13	02469-005	04/10/2015	12:18
MW_10/12	02469-8DL	04/10/2015	12:47
MW_21/18	02469-12DL	04/10/2015	13:15
MW_13/18	02469-3DL	04/10/2015	14:11
MW_24/17	02469-6DL	04/10/2015	15:08
MID	02631-001	04/10/2015	15:36
FINAL	02631-002	04/10/2015	16:04
MW-1/12.9	02600-001	04/10/2015	16:32
FIELD_BLANK	02625-006	04/10/2015	17:56
M-1R(11-30)	02637-001	04/10/2015	18:24
TWP-1/12	02613-001	04/10/2015	18:52
LCSA150410a	LCSA150410a	04/10/2015	19:49

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G3170.D Instrument ID: MSD_G

Date Analyzed: 04/13/2015 Time Analyzed: 09:59

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW_14/13	02469-5DL	04/13/2015	10:27
MW_30/12	02469-11DL	04/13/2015	10:55
MW_26/13	02469-14DL	04/13/2015	11:23
MW-3	02619-001	04/13/2015	11:51
FIELD_BLANK	02608-005	04/13/2015	12:19
TRIP_BLANK	02608-006	04/13/2015	12:48
MW-1D	02608-001	04/13/2015	13:16
MW-1R	02608-002	04/13/2015	13:44
MW-2	02608-003	04/13/2015	14:12
MW-5	02608-004	04/13/2015	14:40
MW-1	02691-001	04/13/2015	15:08
MW-1/11.90	02702-001	04/13/2015	15:36
MW-2/6.13	02702-002	04/13/2015	16:04
MW-2D/6.70	02702-003	04/13/2015	16:32
MW-5/7.11	02702-004	04/13/2015	17:00
MW-6/6.15	02702-005	04/13/2015	17:28
LCSA150413a	LCSA150413a	04/13/2015	17:56
2702-001MS	2702-001MS	04/13/2015	18:25
2702-001MSD	2702-001MSD	04/13/2015	18:54
2702-002MS	2702-002MS	04/13/2015	19:22
2702-002MSD	2702-002MSD	04/13/2015	19:50

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G2833.D BFB Injection Date: 04/01/2015

Inst ID: MSD_G BFB Injection Time: 8:36

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.3			
75	30.0 - 60.0% of mass 95	48.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.9			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	73.1			
175	5.0 - 9.0% of mass 174	5.2	(	7.1	)1
176	95.0 - 101.0% of mass 174	71.1	(	97.3	)1
177	5.0 - 9.0% of mass 176	4.6	(	6.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC100	ICC100	G2838.D	04/01/2015	10:57
ICC001	ICC001	G2834.D	04/01/2015	9:04
ICC002	ICC002	G2835.D	04/01/2015	9:33
ICC005	ICC005	G2836.D	04/01/2015	10:01
ICC020	ICC020	G2837.D	04/01/2015	10:29
ICC150	ICC150	G2839.D	04/01/2015	11:25
ICC200	ICC200	G2840.D	04/01/2015	11:53
ICV100	ICV100	G2842.D	04/01/2015	13:08

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3141.D BFB Injection Date: 04/10/2015

Inst ID: MSD_G BFB Injection Time: 8:58

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.3			
75	30.0 - 60.0% of mass 95	48.4			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.9			
173	Less than 2.0% of mass 174	0.1	(	0.2	)1
174	Great than 50.0% of mass 95	70.6			
175	5.0 - 9.0% of mass 174	5.1	(	7.2	)1
176	95.0 - 101.0% of mass 174	68.7	(	97.3	)1
177	5.0 - 9.0% of mass 176	4.5	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	G3142.D	04/10/2015	9:26
BLKA150410a	BLKA150410a	G3144.D	04/10/2015	10:26
MW-6	02713-2DL	G3145.D	04/10/2015	10:54
MWF-25D	02518-1DL	G3146.D	04/10/2015	11:22
MW_13D/18	02469-4DL	G3147.D	04/10/2015	11:50
MW_14/13	02469-005	G3148.D	04/10/2015	12:18
MW_10/12	02469-8DL	G3149.D	04/10/2015	12:47
MW_21/18	02469-12DL	G3150.D	04/10/2015	13:15
MW_13/18	02469-3DL	G3152.D	04/10/2015	14:11
MW_24/17	02469-6DL	G3154.D	04/10/2015	15:08
MID	02631-001	G3155.D	04/10/2015	15:36
FINAL	02631-002	G3156.D	04/10/2015	16:04
MW-1/12.9	02600-001	G3157.D	04/10/2015	16:32
FIELD_BLANK	02625-006	G3160.D	04/10/2015	17:56
M-1R(11-30)	02637-001	G3161.D	04/10/2015	18:24
TWP-1/12	02613-001	G3162.D	04/10/2015	18:52
LCSA150410a	LCSA150410a	G3164.D	04/10/2015	19:49

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3167.D BFB Injection Date: 04/13/2015

Inst ID: MSD_G BFB Injection Time: 8:29

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	16.4			
75	30.0 - 60.0% of mass 95	50.2			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.8			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	71.0			
175	5.0 - 9.0% of mass 174	5.0	(	7.0	)1
176	95.0 - 101.0% of mass 174	69.4	(	97.7	)1
177	5.0 - 9.0% of mass 176	4.6	(	6.6	)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	G3168.D	04/13/2015	8:57
BLKA150413a	BLKA150413a	G3170.D	04/13/2015	9:59
MW_14/13	02469-5DL	G3171.D	04/13/2015	10:27
MW_30/12	02469-11DL	G3172.D	04/13/2015	10:55
MW_26/13	02469-14DL	G3173.D	04/13/2015	11:23
MW-3	02619-001	G3174.D	04/13/2015	11:51
FIELD_BLANK	02608-005	G3175.D	04/13/2015	12:19
TRIP_BLANK	02608-006	G3176.D	04/13/2015	12:48
MW-1D	02608-001	G3177.D	04/13/2015	13:16
MW-1R	02608-002	G3178.D	04/13/2015	13:44
MW-2	02608-003	G3179.D	04/13/2015	14:12
MW-5	02608-004	G3180.D	04/13/2015	14:40
MW-1	02691-001	G3181.D	04/13/2015	15:08
MW-1/11.90	02702-001	G3182.D	04/13/2015	15:36
MW-2/6.13	02702-002	G3183.D	04/13/2015	16:04
MW-2D/6.70	02702-003	G3184.D	04/13/2015	16:32
MW-5/7.11	02702-004	G3185.D	04/13/2015	17:00
MW-6/6.15	02702-005	G3186.D	04/13/2015	17:28
LCSA150413a	LCSA150413a	G3187.D	04/13/2015	17:56
2702-001MS	2702-001MS	G3188.D	04/13/2015	18:25

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3167.D BFB Injection Date : 04/13/201

Inst ID: MSD_G BFB Injection Time: 8:29

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	16.4			
75	30.0 - 60.0% of mass 95	50.2			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.8			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	71.0			
175	5.0 - 9.0% of mass 174	5.0	(	7.0	)1
176	95.0 - 101.0% of mass 174	69.4	(	97.7	)1
177	5.0 - 9.0% of mass 176	4.6	(	6.6	)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
2702-001MSD	2702-001MSD	G3189.D	04/13/2015	18:54
2702-002MS	2702-002MS	G3190.D	04/13/2015	19:22
2702-002MSD	2702-002MSD	G3191.D	04/13/2015	19:50

Response Factor Report MSD_G

Method Path : C:\MSDCHEM\1\METHODS\
Method File : G8040115.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Wed Apr 01 16:18:56 2015
Response Via : Initial Calibration

Calibration Files
1 =G2834.D 2 =G2835.D 5 =G2836.D
20 =G2837.D 100 =G2838.D 150 =G2839.D 200 =G2840.D

		Compound	1	2	5	20	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------						
2)	T	Dichlorodifluorom	0.533	0.561	0.564	0.580	0.557	0.491	0.499	0.541	6.34
3)	P	Chloromethane	0.476	0.509	0.517	0.514	0.532	0.488	0.481	0.502	4.16
4)	C	Vinyl chloride	0.488	0.535	0.541	0.566	0.544	0.522	0.515	0.530	4.70
5)	T	Bromomethane	0.309	0.266	0.315	0.315	0.285	0.226	0.175	0.270	19.67
6)	T	Chloroethane	0.287	0.310	0.310	0.317	0.300	0.287	0.274	0.298	5.26
7)	T	Trichlorofluorome	0.378	0.419	0.458	0.532	0.573	0.544	0.551	0.494	15.19
8)	T	Acrolein	0.059	0.061	0.062	0.070	0.070	0.067	0.066	0.065	6.50
9)	MC	1,1-Dichloroethen	0.403	0.440	0.427	0.437	0.429	0.413	0.415	0.423	3.20
10)	T	Acetone			0.161	0.141	0.139	0.142	0.142	0.145	6.42
11)	T	Carbon disulfide	1.095	1.045	1.056	1.146	1.212	1.164	1.167	1.126	5.54
12)	T	Vinyl acetate	1.171	1.558	1.242	1.585	1.580	1.575	1.527	1.463	12.10
13)	T	Methylene chlorid		0.829	0.645	0.669	0.613	0.601	0.592	0.658	13.45
14)	T	Acrylonitrile	0.139	0.178	0.153	0.170	0.173	0.171	0.169	0.165	8.42
15)	T	tert-Butyl alcoho		0.050	0.043	0.044	0.046	0.050	0.053	0.048	8.66
16)	T	trans-1,2-Dichlor	0.520	0.661	0.555	0.570	0.541	0.521	0.507	0.554	9.39
17)	T	Methyl tert-butyl	1.290	1.729	1.496	1.573	1.566	1.581	1.573	1.544	8.55
18)	P	1,1-Dichloroethan	0.828	1.103	0.946	0.984	0.967	0.947	0.932	0.958	8.47
19)	T	Diisopropyl ether	1.226	1.667	1.435	1.526	1.467	1.435	1.412	1.452	9.13
20)	T	cis-1,2-Dichloroe	0.554	0.592	0.603	0.619	0.595	0.578	0.564	0.586	3.85
21)	T	2,2-Dichloropropa	0.428	0.480	0.474	0.512	0.478	0.430	0.400	0.458	8.50
22)	T	2-Butanone (MEK)	0.222	0.207	0.190	0.192	0.193	0.202	0.203	0.201	5.52
23)	T	Bromochloromethan	0.250	0.265	0.267	0.286	0.281	0.281	0.277	0.272	4.59
25)	C	Chloroform	0.881	0.978	0.952	1.002	0.979	0.960	0.947	0.957	3.99
26)	T	1,1,1-Trichloroet	0.631	0.718	0.719	0.780	0.791	0.764	0.754	0.737	7.40
27)	T	Carbon tetrachlor	0.482	0.568	0.604	0.681	0.703	0.685	0.678	0.629	12.91
28)	T	1,1-Dichloroprope	0.748	0.764	0.753	0.784	0.761	0.729	0.717	0.751	2.96
29)	T	1,2-Dichloroethan	0.666	0.739	0.706	0.741	0.720	0.712	0.700	0.712	3.58
30)	S	1,2-Dichloroethan	0.589	0.601	0.586	0.599	0.600	0.597	0.597	0.596	0.98
31)	I	1,4-Difluorobenzene	----------	ISTD	----------						
32)	M	Benzene	1.298	1.410	1.401	1.401	1.365	1.319	1.268	1.352	4.19
33)	M	Trichloroethene	0.347	0.366	0.363	0.353	0.360	0.354	0.343	0.355	2.42
34)	C	1,2-Dichloropropa	0.295	0.336	0.330	0.339	0.328	0.322	0.308	0.322	4.89
35)	T	Dibromomethane	0.174	0.202	0.195	0.201	0.207	0.208	0.204	0.199	5.94
36)	T	1,4-Dioxane	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.003	11.33
37)	T	Bromodichlorometh	0.351	0.391	0.400	0.440	0.467	0.464	0.458	0.424	10.46
38)	T	2-Chloroethyl vin	0.174	0.138	0.115	0.144	0.174	0.186	0.191	0.160	17.67
39)	T	cis-1,3-Dichlorop	0.415	0.470	0.482	0.552	0.589	0.589	0.578	0.525	13.19
40)	T	4-Methyl-2-pentan	0.219	0.214	0.212	0.232	0.247	0.259	0.261	0.235	8.86
41)	S	Toluene-d8	1.279	1.258	1.256	1.265	1.294	1.273	1.269	1.271	1.04
42)	MC	Toluene	0.852	0.901	0.860	0.882	0.861	0.836	0.804	0.857	3.65
43)	T	trans-1,3-Dichlor	0.364	0.406	0.421	0.488	0.532	0.541	0.534	0.470	15.30
44)	T	1,1,2-Trichloroet	0.260	0.258	0.244	0.254	0.250	0.251	0.249	0.252	2.16
45)	T	Tetrachloroethene	0.372	0.361	0.333	0.337	0.327	0.315	0.305	0.336	7.04
46)	T	1,3-Dichloropropa	0.510	0.519	0.508	0.530	0.518	0.514	0.500	0.514	1.84
47)	T	2-Hexanone	0.157	0.149	0.148	0.174	0.191	0.203	0.205	0.175	14.19
48)	T	Dibromochlorometh	0.234	0.248	0.252	0.296	0.330	0.340	0.339	0.291	15.89
49)	T	1,2-Dibromoethane	0.253	0.273	0.264	0.281	0.293	0.298	0.298	0.280	6.31
50)	I	Chlorobenzene-d5	----------	ISTD	----------						
		[illegible]	1.194	1.204	1.120	1.123	1.066	1.056	1.034	1.112	5.82

53)	C	Ethylbenzene	1.793	1.819	1.789	1.876	1.805	1.787	1.733	1.800	2.37
54)	T	m,p-Xylene	0.725	0.734	0.718	0.727	0.666	0.645	0.618	0.690	6.76
55)	T	o-Xylene		0.715	0.708	0.733	0.669	0.650	0.625	0.683	6.15
56)	T	Styrene	0.993	1.074	1.131	1.214	1.124	1.100	1.065	1.100	6.20
57)	P	Bromoform	0.162	0.154	0.150	0.184	0.215	0.234	0.238	0.191	19.81
58)	T	Isopropylbenzene	1.624	1.676	1.725	1.832	1.759	1.738	1.687	1.720	3.88
59)	S	Bromofluorobenzen	0.593	0.589	0.594	0.595	0.590	0.595	0.600	0.594	0.59
60)	P	1,1,2,2-Tetrachlo	0.470	0.427	0.400	0.429	0.412	0.420	0.417	0.425	5.20
61)	T	Bromobenzene	0.501	0.477	0.449	0.459	0.437	0.434	0.428	0.455	5.73
62)	T	1,2,3-Trichloropr	0.483	0.445	0.415	0.415	0.401	0.417	0.418	0.428	6.48
63)	T	n-Propylbenzene	2.299	2.213	2.149	2.222	2.123	2.082	2.023	2.159	4.32
64)	T	2-Chlorotoluene	1.531	1.416	1.364	1.411	1.341	1.332	1.306	1.386	5.47
65)	T	1,3,5-Trimethylbe	1.611	1.548	1.538	1.604	1.510	1.471	1.420	1.529	4.50
66)	T	4-Chlorotoluene	1.531	1.416	1.364	1.411	1.341	1.332	1.306	1.386	5.47
67)	T	tert-Butylbenzene	1.207	1.216	1.233	1.314	1.270	1.247	1.221	1.244	3.00
68)	T	1,2,4-Trimethylbe	1.593	1.550	1.530	1.583	1.508	1.484	1.456	1.529	3.31
69)	T	sec-Butylbenzene	1.831	1.802	1.785	1.876	1.795	1.752	1.718	1.794	2.85
70)	T	1,3-Dichlorobenze	1.040	0.928	0.866	0.868	0.829	0.832	0.820	0.883	8.86
71)	T	4-Isopropyltoluen	1.555	1.477	1.446	1.536	1.483	1.456	1.424	1.483	3.22
72)	T	1,4-Dichlorobenze	1.030	0.909	0.848	0.853	0.823	0.827	0.820	0.873	8.67
73)	T	n-Butylbenzene	1.767	1.558	1.409	1.424	1.315	1.271	1.220	1.423	13.23
74)	T	1,2-Dichlorobenze	1.027	0.919	0.849	0.825	0.757	0.749	0.734	0.837	12.71
75)	T	1,2-Dibromo-3-chl	0.057	0.056	0.055	0.062	0.070	0.078	0.082	0.066	16.83
76)	T	1,2,4-Trichlorobe	0.635	0.552	0.535	0.561	0.542	0.549	0.540	0.559	6.16
77)	T	Hexachlorobutadie	0.256	0.233	0.214	0.219	0.209	0.205	0.199	0.219	8.98
78)	T	Naphthalene	0.923	0.826	0.912	1.061	1.120	1.216	1.217	1.039	14.96
79)	T	1,2,3-Trichlorobe	0.490	0.418	0.421	0.438	0.440	0.460	0.454	0.446	5.54
80)	T	1,1,2-Trichloro-1	0.285	0.276	0.264	0.272	0.256	0.232	0.235	0.260	7.80
81)	T	Methyl acetate	0.202	0.276	0.221	0.228	0.232	0.247	0.248	0.236	9.92
82)	T	Cyclohexane		0.555	0.554	0.585	0.576	0.539	0.545	0.559	3.16
83)	T	Methylcyclohexane	0.588	0.581	0.589	0.626	0.597	0.546	0.546	0.582	4.86

(#) = Out of Range ### Number of calibration levels exceeded format ###

;8040115.M Wed Apr 01 16:19:12 2015 1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\04-01-15\
Data File : G2842.D
Acq On : 1 Apr 2015 13:08
Operator : Sylvia
Sample : ICV100,ICV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 02 08:53:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	106	0.00
2	T	Dichlorodifluoromethane	0.541	0.502	7.2	95	0.00
3	P	Chloromethane	0.502	0.438	12.7	87	0.00
4	C	Vinyl chloride	0.530	0.440	17.0	85	0.02
5	T	Bromomethane	0.270	0.241	10.7	89	-0.01
6	T	Chloroethane	0.298	0.250	16.1	88	0.00
7	T	Trichlorofluoromethane	0.494	0.467	5.5	86	0.05
8	T	Acrolein	0.065	0.068	-4.6	103	0.00
9	MC	1,1-Dichloroethene	0.423	0.343	18.9	85	0.00
10	T	Acetone	0.145	0.141	2.8	108	0.00
11	T	Carbon disulfide	1.126	0.967	14.1	84	0.00
12	T	Vinyl acetate	1.463	1.388	5.1	93	0.00
13	T	Methylene chloride	0.658	0.554	15.8	95	0.00
14	T	Acrylonitrile	0.165	0.176	-6.7	108	0.00
15	T	tert-Butyl alcohol (TBA)	0.048	0.047	2.1	109	0.00
16	T	trans-1,2-Dichloroethene	0.554	0.456	17.7	89	0.00
17	T	Methyl tert-butyl ether (MT	1.544	1.506	2.5	102	0.00
18	P	1,1-Dichloroethane	0.958	0.840	12.3	92	0.00
19	T	Diisopropyl ether (DIPE)	1.452	1.344	7.4	97	0.00
20	T	cis-1,2-Dichloroethene	0.586	0.526	10.2	93	0.00
21	T	2,2-Dichloropropane	0.458	0.378	17.5	83	0.00
22	T	2-Butanone (MEK)	0.201	0.194	3.5	106	-0.01
23	T	Bromochloromethane	0.272	0.259	4.8	97	0.00
25	C	Chloroform	0.957	0.858	10.3	92	0.00
26	T	1,1,1-Trichloroethane	0.737	0.654	11.3	87	0.00
27	T	Carbon tetrachloride	0.629	0.570	9.4	86	0.00
28	T	1,1-Dichloropropene	0.751	0.620	17.4	86	0.00
29	T	1,2-Dichloroethane (EDC)	0.712	0.666	6.5	98	0.00
30	S	1,2-Dichloroethane-d4	0.596	0.596	0.0	105	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
32	M	Benzene	1.352	1.188	12.1	92	0.00
33	M	Trichloroethene	0.355	0.307	13.5	90	0.00
34	C	1,2-Dichloropropane	0.322	0.299	7.1	96	0.00
35	T	Dibromomethane	0.199	0.195	2.0	100	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	91	0.00
37	T	Bromodichloromethane	0.424	0.424	0.0	96	0.00
38	T	2-Chloroethyl vinyl ether	0.160	0.172	-7.5	105	0.00
39	T	cis-1,3-Dichloropropene	0.525	0.536	-2.1	96	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.235	0.248	-5.5	106	0.00
41	S	Toluene-d8	1.271	1.282	-0.9	105	0.00
42	MC	Toluene	0.857	0.752	12.3	92	0.00
43	T	trans-1,3-Dichloropropene	0.470	0.495	-5.3	98	0.00
44	T	1,1,2-Trichloroethane	0.252	0.239	5.2	101	0.00
45	T	Tetrachloroethene	0.336	0.273	18.8	88	0.00

47	T	2-Hexanone	0.175	0.191	-9.1	105	0.00
48	T	Dibromochloromethane	0.291	0.309	-6.2	99	0.00
49	T	1,2-Dibromoethane (EDB)	0.280	0.282	-0.7	102	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
51	MP	Chlorobenzene	1.112	0.965	13.2	94	0.00
52	T	1,1,1,2-Tetrachloroethane	0.360	0.343	4.7	95	0.00
53	C	Ethylbenzene	1.800	1.584	12.0	92	0.00
54	T	m,p-Xylene	0.690	0.592	14.2	93	0.00
55	T	o-Xylene	0.683	0.605	11.4	94	0.00
56	T	Styrene	1.100	1.027	6.6	95	0.00
57	P	Bromoform	0.191	0.211	-10.5	102	0.00
58	T	Isopropylbenzene	1.720	1.519	11.7	90	0.00
59	S	Bromofluorobenzene	0.594	0.591	0.5	104	0.00
60	P	1,1,2,2-Tetrachloroethane	0.425	0.396	6.8	100	0.00
61	T	Bromobenzene	0.455	0.403	11.4	96	0.00
62	T	1,2,3-Trichloropropane	0.428	0.397	7.2	103	0.00
63	T	n-Propylbenzene	2.159	1.830	15.2	90	0.00
64	T	2-Chlorotoluene	1.386	1.199	13.5	93	0.00
65	T	1,3,5-Trimethylbenzene	1.529	1.326	13.3	92	0.00
66	T	4-Chlorotoluene	1.386	1.199	13.5	93	0.00
67	T	tert-Butylbenzene	1.244	1.090	12.4	89	0.00
68	T	1,2,4-Trimethylbenzene	1.529	1.342	12.2	93	0.00
69	T	sec-Butylbenzene	1.794	1.521	15.2	88	0.00
70	T	1,3-Dichlorobenzene	0.883	0.759	14.0	95	0.00
71	T	4-Isopropyltoluene	1.483	1.268	14.5	89	0.00
72	T	1,4-Dichlorobenzene	0.873	0.752	13.9	95	0.00
73	T	n-Butylbenzene	1.423	1.158	18.6	92	0.00
74	T	1,2-Dichlorobenzene	0.837	0.709	15.3	98	0.00
75	T	1,2-Dibromo-3-chloropropane	0.066	0.072	-9.1	107	0.00
76	T	1,2,4-Trichlorobenzene	0.559	0.512	8.4	99	0.00
77	T	Hexachlorobutadiene	0.219	0.177	19.2	88	0.00
78	T	Naphthalene	1.039	1.136	-9.3	106	0.00
79	T	1,2,3-Trichlorobenzene	0.446	0.426	4.5	101	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.260	0.215	17.3	88	0.00
81	T	Methyl acetate	0.236	0.248	-5.1	111	0.00
82	T	Cyclohexane	0.559	0.462	17.4	84	0.00
83	T	Methylcyclohexane	0.582	0.479	17.7	84	0.00

(#) = Out of Range

G8040115.M Thu Apr 02 08:53:13 2015 1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3142.D
Acq On : 10 Apr 2015 9:26
Operator : Sylvia
Sample : CCV100,CCV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 16:18:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	85	0.00
2	T	Dichlorodifluoromethane	0.541	0.550	-1.7	84	0.01
3	P	Chloromethane	0.502	0.477	5.0	76	0.00
4	C	Vinyl chloride	0.530	0.548	-3.4	85	0.02
5	T	Bromomethane	0.270	0.308	-14.1	92	0.00
6	T	Chloroethane	0.298	0.314	-5.4	89	0.01
7	T	Trichlorofluoromethane	0.494	0.561	-13.6	83	0.05
9	MC	1,1-Dichloroethene	0.423	0.451	-6.6	89	-0.01
10	T	Acetone	0.145	0.173	-19.3	106	0.00
11	T	Carbon disulfide	1.126	1.255	-11.5	88	0.00
12	T	Vinyl acetate	1.463	1.355	7.4	73	0.00
13	T	Methylene chloride	0.658	0.760	-15.5	105	0.00
14	T	Acrylonitrile	0.165	0.191	-15.8	94	0.00
15	T	tert-Butyl alcohol (TBA)	0.048	0.047	2.1	86	0.00
16	T	trans-1,2-Dichloroethene	0.554	0.571	-3.1	90	0.00
17	T	Methyl tert-butyl ether (MT	1.544	1.816	-17.6	98	0.00
18	P	1,1-Dichloroethane	0.958	1.009	-5.3	88	0.00
19	T	Diisopropyl ether (DIPE)	1.452	1.504	-3.6	87	0.00
20	T	cis-1,2-Dichloroethene	0.586	0.628	-7.2	89	0.00
21	T	2,2-Dichloropropane	0.458	0.525	-14.6	93	0.00
22	T	2-Butanone (MEK)	0.201	0.199	1.0	88	-0.01
23	T	Bromochloromethane	0.272	0.289	-6.2	87	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	83	0.00
25	C	Chloroform	0.957	1.055	-10.2	91	0.00
26	T	1,1,1-Trichloroethane	0.737	0.839	-13.8	90	0.00
27	T	Carbon tetrachloride	0.629	0.748	-18.9	90	0.00
28	T	1,1-Dichloropropene	0.751	0.784	-4.4	87	0.00
29	T	1,2-Dichloroethane (EDC)	0.712	0.762	-7.0	90	0.00
30	S	1,2-Dichloroethane-d4	0.596	0.606	-1.7	86	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	86	0.00
32	M	Benzene	1.352	1.380	-2.1	87	0.00
33	M	Trichloroethene	0.355	0.377	-6.2	91	0.00
34	C	1,2-Dichloropropane	0.322	0.335	-4.0	88	0.00
35	T	Dibromomethane	0.199	0.206	-3.5	86	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	63	0.00
37	T	Bromodichloromethane	0.424	0.481	-13.4	89	0.00
38	T	2-Chloroethyl vinyl ether	0.160	0.162	-1.3	80	0.00
39	T	cis-1,3-Dichloropropene	0.525	0.584	-11.2	86	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.235	0.225	4.3	79	0.00
41	S	Toluene-d8	1.271	1.299	-2.2	87	0.00
42	MC	Toluene	0.857	0.873	-1.9	88	0.00
43	T	trans-1,3-Dichloropropene	0.470	0.520	-10.6	84	0.00
44	T	1,1,2-Trichloroethane	0.252	0.247	2.0	85	0.00
45	T	Tetrachloroethene	0.336	0.330	1.8	87	0.00
46	T	1,3-Dichloropropane	0.514	0.513	0.2	86	0.00

47	T	2-Hexanone	0.175	0.190	-8.6	86	0.00
48	T	Dibromochloromethane	0.291	0.324	-11.3	85	0.00
49	T	1,2-Dibromoethane (EDB)	0.280	0.288	-2.9	85	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	87	0.00
51	MP	Chlorobenzene	1.112	1.087	2.2	89	0.00
52	T	1,1,1,2-Tetrachloroethane	0.360	0.388	-7.8	90	0.00
53	C	Ethylbenzene	1.800	1.844	-2.4	89	0.00
54	T	m,p-Xylene	0.690	0.679	1.6	89	0.00
55	T	o-Xylene	0.683	0.684	-0.1	89	0.00
56	T	Styrene	1.100	1.143	-3.9	88	0.00
57	P	Bromoform	0.191	0.195	-2.1	79	0.00
58	T	Isopropylbenzene	1.720	1.797	-4.5	89	0.00
59	S	Bromofluorobenzene	0.594	0.605	-1.9	89	0.00
60	P	1,1,2,2-Tetrachloroethane	0.425	0.380	10.6	80	0.00
61	T	Bromobenzene	0.455	0.444	2.4	88	0.00
62	T	1,2,3-Trichloropropane	0.428	0.387	9.6	84	0.00
63	T	n-Propylbenzene	2.159	2.162	-0.1	89	0.00
64	T	2-Chlorotoluene	1.386	1.387	-0.1	90	0.00
65	T	1,3,5-Trimethylbenzene	1.529	1.561	-2.1	90	0.00
66	T	4-Chlorotoluene	1.386	1.387	-0.1	90	0.00
67	T	tert-Butylbenzene	1.244	1.298	-4.3	89	0.00
68	T	1,2,4-Trimethylbenzene	1.529	1.560	-2.0	90	0.00
69	T	sec-Butylbenzene	1.794	1.833	-2.2	89	0.00
70	T	1,3-Dichlorobenzene	0.883	0.848	4.0	89	0.00
71	T	4-Isopropyltoluene	1.483	1.524	-2.8	89	0.00
72	T	1,4-Dichlorobenzene	0.873	0.845	3.2	89	0.00
73	T	n-Butylbenzene	1.423	1.348	5.3	89	0.00
74	T	1,2-Dichlorobenzene	0.837	0.767	8.4	88	0.00
75	T	1,2-Dibromo-3-chloropropane	0.066	0.062	6.1	77	0.00
76	T	1,2,4-Trichlorobenzene	0.559	0.518	7.3	83	0.00
77	T	Hexachlorobutadiene	0.219	0.212	3.2	88	0.00
78	T	Naphthalene	1.039	0.962	7.4	75	0.00
79	T	1,2,3-Trichlorobenzene	0.446	0.390	12.6	77	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.260	0.266	-2.3	91	0.00
81	T	Methyl acetate	0.236	0.260	-10.2	97	0.01
82	T	Cyclohexane	0.559	0.564	-0.9	85	0.00
83	T	Methylcyclohexane	0.582	0.587	-0.9	86	0.00

(#) = Out of Range

38040115.M Fri Apr 10 16:18:25 2015 1

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\04-13-15\
Data File : G3168.D
Acq On : 13 Apr 2015 8:57
Operator : Sylvia
Sample : CCV100,CCV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 13 14:52:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	77	0.00
2	T	Dichlorodifluoromethane	0.541	0.570	-5.4	78	0.00
3	P	Chloromethane	0.502	0.584	-16.3	84	0.00
4	C	Vinyl chloride	0.530	0.601	-13.4	85	0.02
5	T	Bromomethane	0.270	0.312	-15.6	84	0.00
6	T	Chloroethane	0.298	0.353	-18.5	90	0.00
7	T	Trichlorofluoromethane	0.494	0.587	-18.8	78	0.05
9	MC	1,1-Dichloroethene	0.423	0.479	-13.2	86	0.00
10	T	Acetone	0.145	0.139	4.1	77	0.00
11	T	Carbon disulfide	1.126	1.310	-16.3	83	0.00
12	T	Vinyl acetate	1.463	1.440	1.6	70	0.00
13	T	Methylene chloride	0.658	0.702	-6.7	88	0.00
14	T	Acrylonitrile	0.165	0.167	-1.2	74	0.00
15	T	tert-Butyl alcohol (TBA)	0.048	0.046	4.2	76	0.00
16	T	trans-1,2-Dichloroethene	0.554	0.588	-6.1	83	0.00
17	T	Methyl tert-butyl ether (MT	1.544	1.746	-13.1	85	0.00
18	P	1,1-Dichloroethane	0.958	1.068	-11.5	85	0.00
19	T	Diisopropyl ether (DIPE)	1.452	1.574	-8.4	82	0.00
20	T	cis-1,2-Dichloroethene	0.586	0.642	-9.6	83	0.00
21	T	2,2-Dichloropropane	0.458	0.454	0.9	73	0.00
22	T	2-Butanone (MEK)	0.201	0.220	-9.5	88	-0.01
23	T	Bromochloromethane	0.272	0.300	-10.3	82	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	76	0.00
25	C	Chloroform	0.957	1.123	-17.3	88	0.00
26	T	1,1,1-Trichloroethane	0.737	0.752	-2.0	73	0.00
27	T	Carbon tetrachloride	0.629	0.590	6.2	64	0.00
28	T	1,1-Dichloropropene	0.751	0.811	-8.0	82	0.00
29	T	1,2-Dichloroethane (EDC)	0.712	0.844	-18.5	90	0.00
30	S	1,2-Dichloroethane-d4	0.596	0.665	-11.6	85	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	79	0.00
32	M	Benzene	1.352	1.408	-4.1	81	0.00
33	M	Trichloroethene	0.355	0.387	-9.0	85	0.00
34	C	1,2-Dichloropropane	0.322	0.336	-4.3	81	0.00
35	T	Dibromomethane	0.199	0.216	-8.5	82	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	59	0.00
37	T	Bromodichloromethane	0.424	0.472	-11.3	80	0.00
38	T	2-Chloroethyl vinyl ether	0.160	0.162	-1.3	73	0.00
39	T	cis-1,3-Dichloropropene	0.525	0.610	-16.2	82	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.235	0.241	-2.6	77	0.00
41	S	Toluene-d8	1.271	1.272	-0.1	77	0.00
42	MC	Toluene	0.857	0.866	-1.1	79	0.00
43	T	trans-1,3-Dichloropropene	0.470	0.562	-19.6	83	0.00
44	T	1,1,2-Trichloroethane	0.252	0.252	0.0	79	0.00
45	T	Tetrachloroethene	0.336	0.324	3.6	78	0.00

47	T	2-Hexanone	0.175	0.207	-18.3	85	0.00
48	T	Dibromochloromethane	0.291	0.348	-19.6	83	0.00
49	T	1,2-Dibromoethane (EDB)	0.280	0.300	-7.1	81	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	79	0.00
51	MP	Chlorobenzene	1.112	1.100	1.1	81	0.00
52	T	1,1,1,2-Tetrachloroethane	0.360	0.413	-14.7	86	0.00
53	C	Ethylbenzene	1.800	1.878	-4.3	82	0.00
54	T	m,p-Xylene	0.690	0.683	1.0	81	0.00
55	T	o-Xylene	0.683	0.695	-1.8	82	0.00
56	T	Styrene	1.100	1.169	-6.3	82	0.00
57	P	Bromoform	0.191	0.211	-10.5	77	0.00
58	T	Isopropylbenzene	1.720	1.852	-7.7	83	0.00
59	S	Bromofluorobenzene	0.594	0.634	-6.7	85	0.00
60	P	1,1,2,2-Tetrachloroethane	0.425	0.407	4.2	78	0.00
61	T	Bromobenzene	0.455	0.465	-2.2	84	0.00
62	T	1,2,3-Trichloropropane	0.428	0.426	0.5	84	0.00
63	T	n-Propylbenzene	2.159	2.241	-3.8	83	0.00
64	T	2-Chlorotoluene	1.386	1.451	-4.7	85	0.00
65	T	1,3,5-Trimethylbenzene	1.529	1.633	-6.8	85	0.00
66	T	4-Chlorotoluene	1.386	1.451	-4.7	85	0.00
67	T	tert-Butylbenzene	1.244	1.345	-8.1	83	0.00
68	T	1,2,4-Trimethylbenzene	1.529	1.650	-7.9	86	0.00
69	T	sec-Butylbenzene	1.794	1.884	-5.0	83	0.00
70	T	1,3-Dichlorobenzene	0.883	0.895	-1.4	85	0.00
71	T	4-Isopropyltoluene	1.483	1.590	-7.2	84	0.00
72	T	1,4-Dichlorobenzene	0.873	0.889	-1.8	85	0.00
73	T	n-Butylbenzene	1.423	1.422	0.1	85	0.00
74	T	1,2-Dichlorobenzene	0.837	0.814	2.7	85	0.00
75	T	1,2-Dibromo-3-chloropropane	0.066	0.074	-12.1	83	0.00
76	T	1,2,4-Trichlorobenzene	0.559	0.571	-2.1	83	0.00
77	T	Hexachlorobutadiene	0.219	0.226	-3.2	85	0.00
78	T	Naphthalene	1.039	1.091	-5.0	77	0.00
79	T	1,2,3-Trichlorobenzene	0.446	0.441	1.1	79	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.260	0.281	-8.1	87	0.00
81	T	Methyl acetate	0.236	0.238	-0.8	81	0.01
82	T	Cyclohexane	0.559	0.552	1.3	76	0.00
83	T	Methylcyclohexane	0.582	0.572	1.7	75	0.00
84		Pentane	0.000	0.000	0.0	93	-0.02

(#) = Out of Range
G8040115.M Tue Apr 14 09:22:17 2015 1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G2838.D

Date Analyzed: 04/01/2015

Instrument ID: MSD_G

Time Analyzed: 10:57

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	532140	6.21	838737	7.03	752648	10.38
	UPPER LIMIT	1064280	6.71	1677474	7.53	1505296	10.88
	LOWER LIMIT	266070	5.71	419368.5	6.53	376324	9.88
	LAB SAMPLE ID						
01	ICC001	537894	6.21	847802	7.03	751372	10.38
02	ICC002	531711	6.21	853036	7.03	748036	10.38
03	ICC005	552195	6.21	873261	7.03	762624	10.38
04	ICC020	534283	6.21	860854	7.03	754543	10.38
05	ICC150	560881	6.21	885493	7.03	782456	10.38
06	ICC200	563411	6.20	896253	7.03	788019	10.38
07	ICV100	562022	6.21	885625	7.03	784636	10.38
08							
09							
10							
11							
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13							
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16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3142.D

Date Analyzed: 04/10/2015

Instrument ID: MSD_G

Time Analyzed: 9:26

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	451518	6.21	725288	7.03	654424	10.38
	UPPER LIMIT	903036	6.71	1450576	7.53	1308848	10.88
	LOWER LIMIT	225759	5.71	362644	6.53	327212	9.88
	LAB SAMPLE ID						
01	BLKA150410a	427211	6.21	695837	7.03	623571	10.38
02	02713-2DL	434846	6.21	696131	7.03	618990	10.38
03	02518-1DL	426522	6.21	688327	7.03	605289	10.38
04	02469-4DL	397181	6.21	652683	7.03	577655	10.38
05	02469-005	347603	6.21	565824	7.03	504218	10.38
06	02469-8DL	423549	6.21	688538	7.03	604287	10.38
07	02469-12DL	415486	6.21	676035	7.03	603449	10.38
08	02469-3DL	424329	6.21	695956	7.03	623653	10.38
09	02469-6DL	445171	6.21	721311	7.03	639515	10.38
10	02631-001	441718	6.21	723605	7.03	628715	10.38
11	02631-002	428120	6.21	687537	7.03	610006	10.38
12	02600-001	420710	6.21	668391	7.03	588967	10.38
13	02625-006	309700	6.21	506989	7.03	450937	10.38
14	02637-001	283320	6.21	463274	7.03	408592	10.38
15	02613-001	253252	6.21	405453	7.03	369357	10.38
16	LCSA150410a	407480	6.21	663292	7.03	591918	10.38
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

 # Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

FORM **8**

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3168.D

Date Analyzed: 04/13/2015

Instrument ID: MSD_G

Time Analyzed: 8:57

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	407869		6.21		661038		7.03		593089		10.38	
	UPPER LIMIT	815738		6.71		1322076		7.53		1186178		10.88	
	LOWER LIMIT	203934.5		5.71		330519		6.53		296544.5		9.88	
	LAB SAMPLE ID												
01	BLKA150413a	392758		6.21		634833		7.03		571143		10.38	
02	02469-5DL	377976		6.21		619268		7.03		559082		10.38	
03	02469-11DL	389195		6.21		634209		7.03		570141		10.38	
04	02469-14DL	470107		6.21		765076		7.03		670768		10.38	
05	02619-001	400309		6.21		659904		7.03		586043		10.38	
06	02608-005	404532		6.21		657830		7.03		581946		10.38	
07	02608-006	454333		6.21		755453		7.03		681329		10.38	
08	02608-001	369914		6.21		613894		7.03		548753		10.38	
09	02608-002	295882		6.21		495372		7.03		451663		10.38	
10	02608-003	341015		6.21		569296		7.03		511859		10.38	
11	02608-004	333444		6.21		556713		7.03		492638		10.38	
12	02691-001	306626		6.21		516406		7.03		463349		10.38	
13	02702-001	259534		6.21		428315		7.03		385338		10.38	
14	02702-002	228382		6.21		389402		7.03		352423		10.38	
15	02702-003	324205		6.21		534669		7.03		491565		10.38	
16	02702-004	326679		6.21		538708		7.03		493284		10.38	
17	02702-005	327582		6.21		533748		7.03		487939		10.38	
18	LCSA150413a	334566		6.21		541955		7.03		514907		10.38	
19	2702-001MS	355901		6.21		583351		7.03		535052		10.38	
20	2702-001MSD	370275		6.21		609367		7.03		559277		10.38	
21	2702-002MS	374239		6.21		611322		7.03		560702		10.38	
22	2702-002MSD	377163		6.21		616525		7.03		564424		10.38	

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3161.D
Acq On : 10 Apr 2015 18:24
Operator : Sylvia
Sample : M-1R(11-30),02637-001,A,5mL,100
Misc : EWMA/50_DIVISION,04/02/15,04/03/15,1
ALS Vial : 19 Sample Multiplier: 1

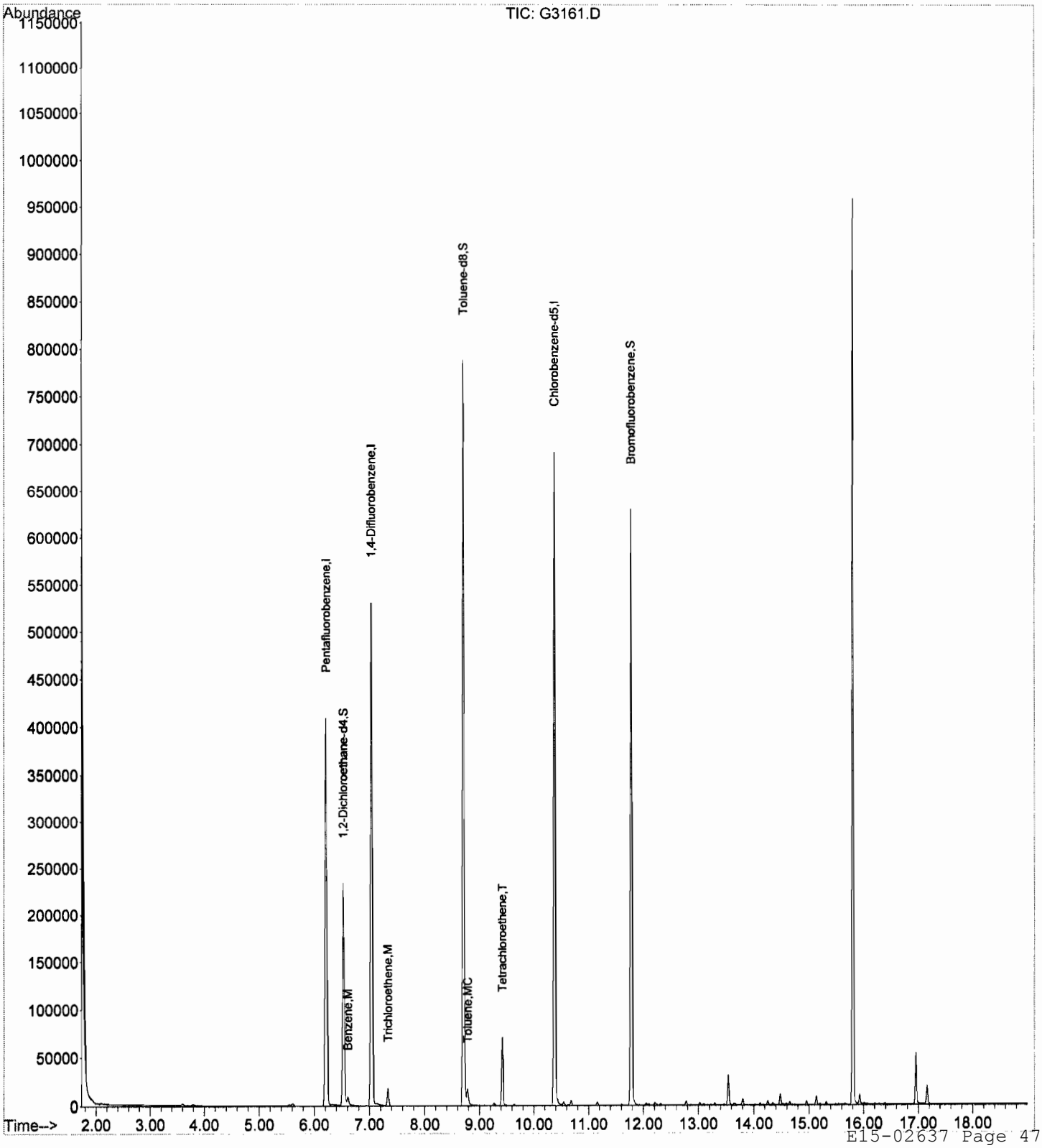
Quant Time: Apr 13 09:26:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	283320	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	463274	50.00	UG		0.00
50) Chlorobenzene-d5	10.38	117	408592	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.53	65	199988	59.26	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 118.52%				
41) Toluene-d8	8.71	98	581597	49.40	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.80%				
59) Bromofluorobenzene	11.78	95	244390	50.38	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 100.76%				
Target Compounds							Qvalue
32) Benzene	6.60	78	7981	0.64	UG		99
33) Trichloroethene	7.33	95	6719	2.04	UG		92
42) Toluene	8.78	92	5663	0.71	UG		99
45) Tetrachloroethene	9.42	166	22840	7.34	UG	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3161.D
Acq On : 10 Apr 2015 18:24
Operator : Sylvia
Sample : M-1R(11-30),02637-001,A,5mL,100
Misc : EWMA/50_DIVISION,04/02/15,04/03/15,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 13 09:26:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3161.D
Acq On : 10 Apr 2015 18:24
Operator : Sylvia
Sample : M-1R(11-30),02637-001,A,5mL,100
Misc : EWMA/50_DIVISION,04/02/15,04/03/15,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8040115.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.212	844	857	876	rBV	409220	891177	59.75%	10.789%
2	6.526	907	917	928	rBV	233585	506122	33.93%	6.128%
3	6.604	928	932	949	rVB2	8783	20612	1.38%	0.250%
4	7.028	1003	1013	1060	rBV	530618	1085306	72.76%	13.140%
5	7.331	1060	1071	1085	rVB2	17814	35632	2.39%	0.431%
6	8.707	1323	1334	1344	rBV	787811	1491548	100.00%	18.058%
7	8.780	1344	1348	1370	rVB2	16585	37566	2.52%	0.455%
8	9.418	1458	1470	1484	rBV	70448	139398	9.35%	1.688%
9	10.375	1641	1653	1679	rBV	691119	1267491	84.98%	15.345%
10	11.777	1910	1921	1947	rBV	630205	1097044	73.55%	13.282%
11	13.540	2249	2258	2271	rVB	31104	56716	3.80%	0.687%
12	14.481	2431	2438	2444	rBV3	10994	19208	1.29%	0.233%
13	15.135	2553	2563	2571	rBV3	9114	16336	1.10%	0.198%
14	15.799	2680	2690	2707	rBV	959386	1462428	98.05%	17.705%
15	15.925	2707	2714	2725	rVB	9734	15342	1.03%	0.186%
16	16.955	2903	2911	2931	rBV	53141	84857	5.69%	1.027%
17	17.159	2941	2950	2964	rBV	19013	33017	2.21%	0.400%

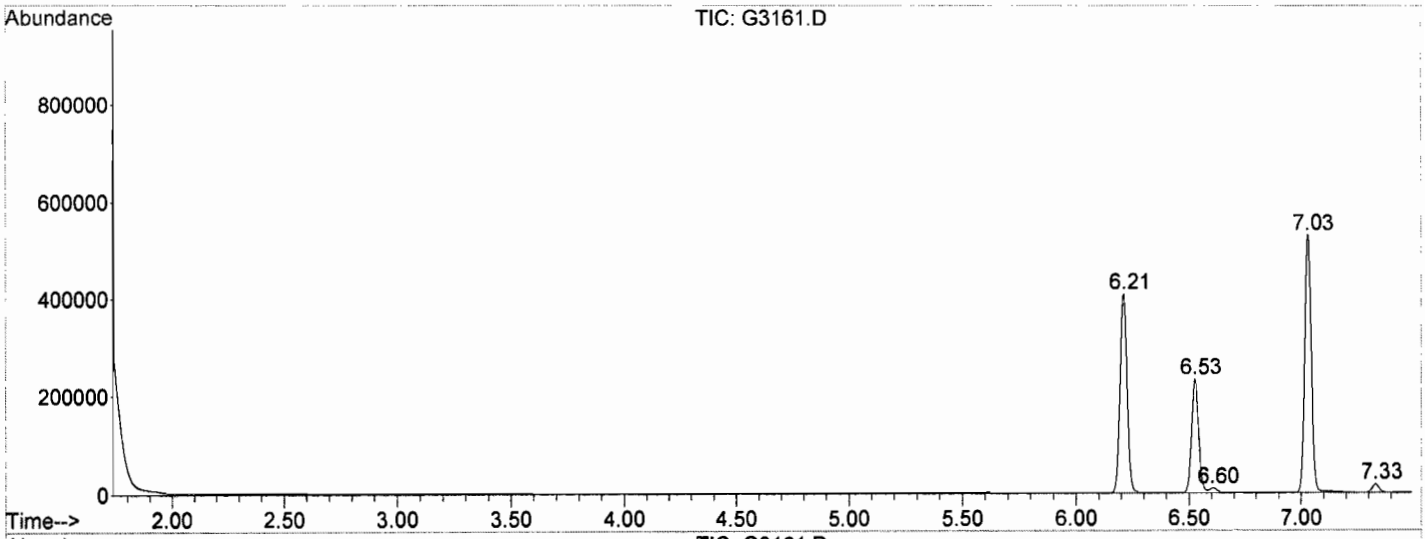
Sum of corrected areas: 8259800

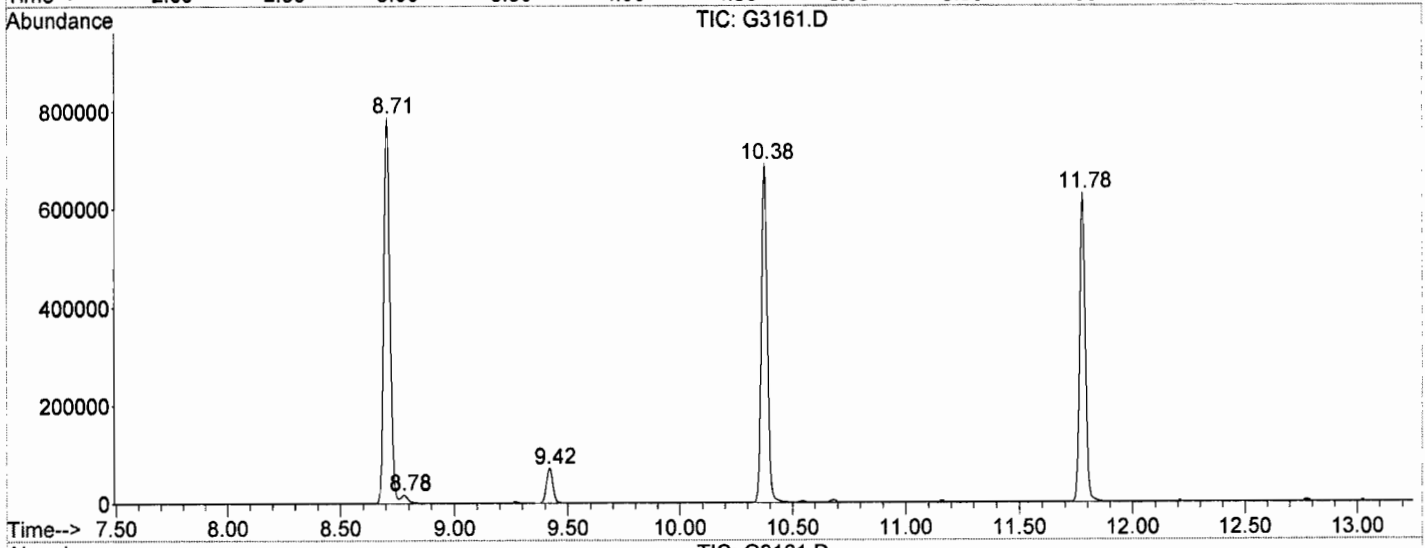
LSC Report - Integrated Chromatogram

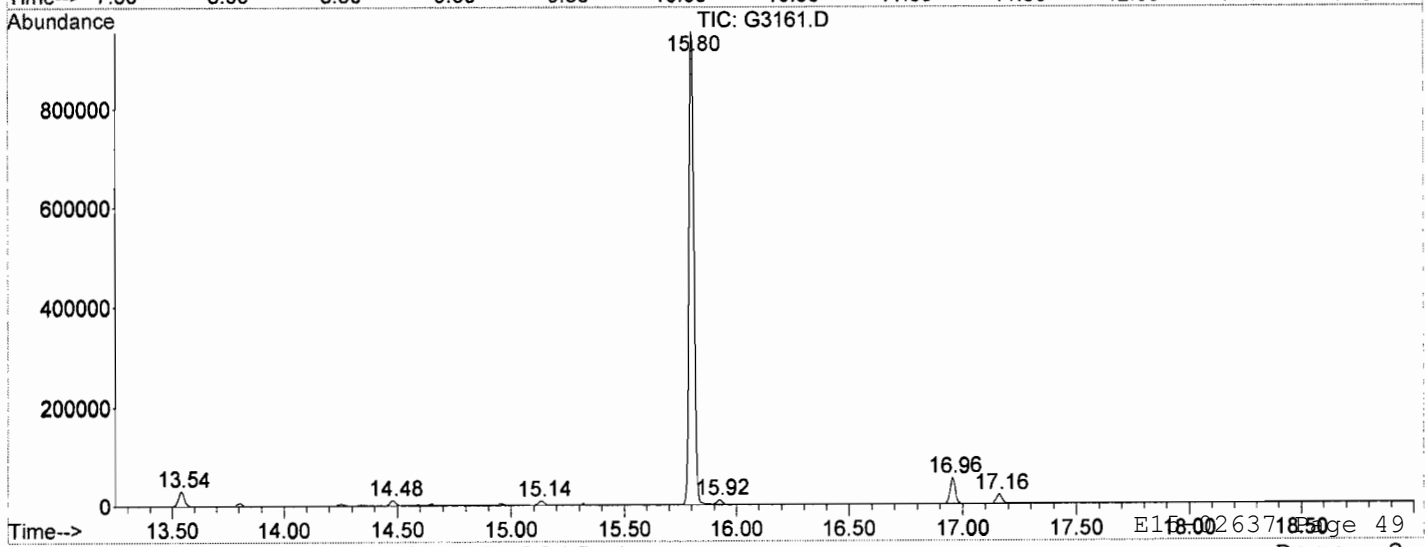
Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3161.D
Acq On : 10 Apr 2015 18:24
Operator : Sylvia
Sample : M-1R(11-30),02637-001,A,5mL,100
Misc : EWMA/50_DIVISION,04/02/15,04/03/15,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3161.D
Acq On : 10 Apr 2015 18:24
Operator : Sylvia
Sample : M-1R(11-30),02637-001,A,5mL,100
Misc : EWMA/50_DIVISION,04/02/15,04/03/15,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

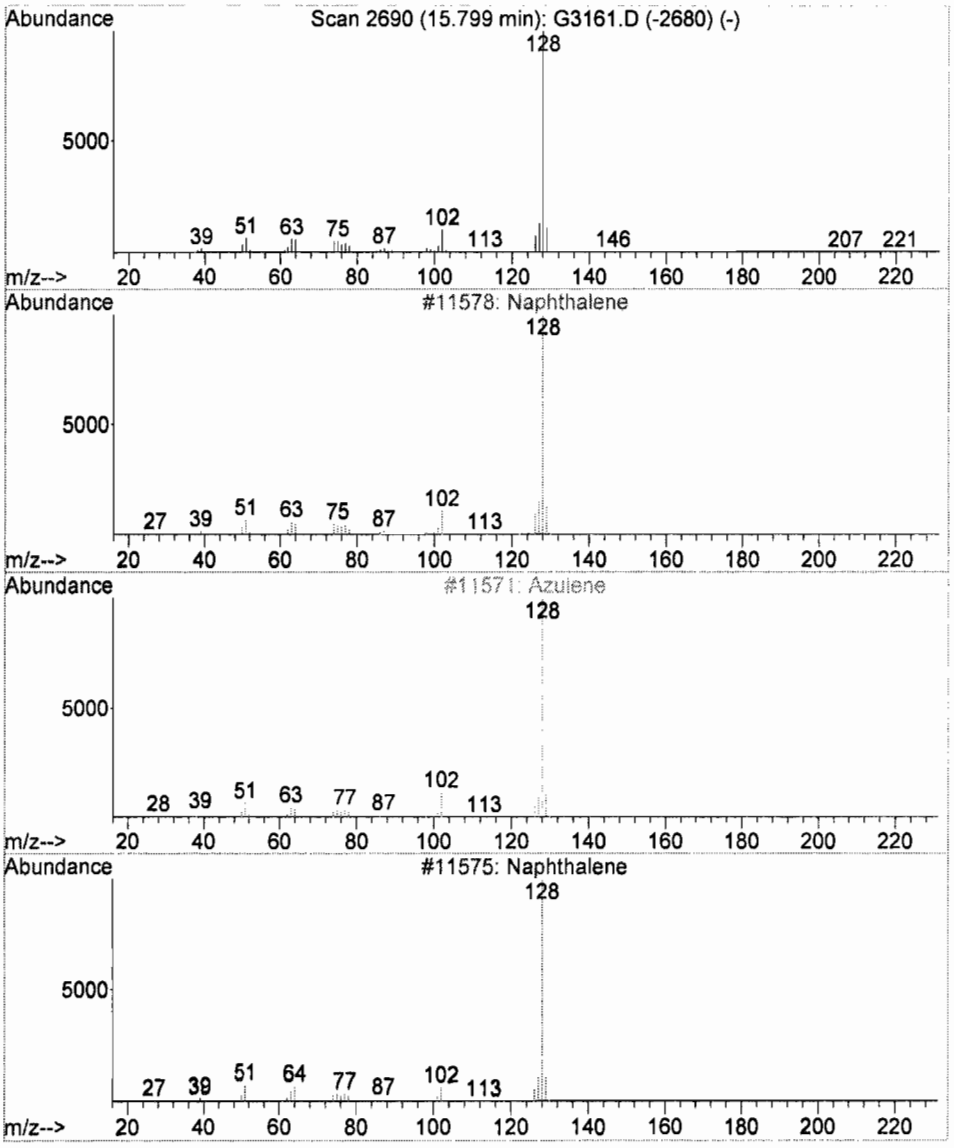
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

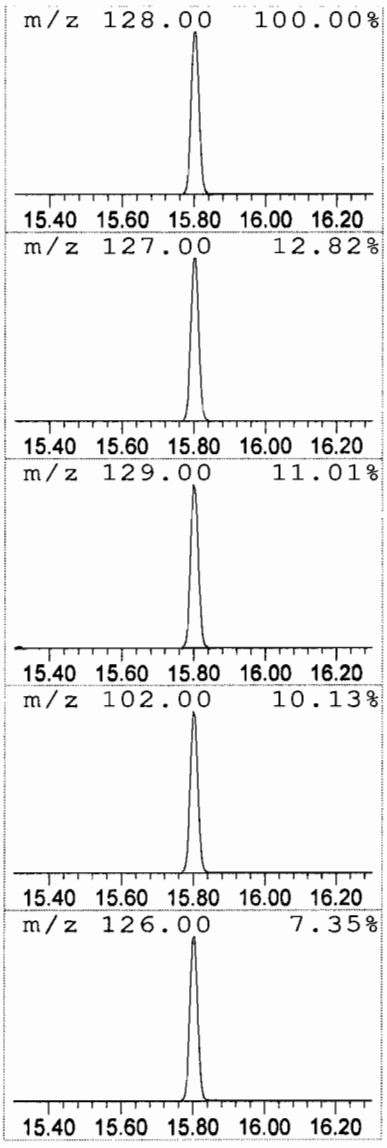
****

Peak Number 1 Naphthalene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.80	57.69 UG	1462430	Chlorobenzene-d5	10.38

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	97
2	Azulene	128	C10H8	000275-51-4	95
3	Naphthalene	128	C10H8	000091-20-3	94
4	Naphthalene	128	C10H8	000091-20-3	94
5	Azulene	128	C10H8	000275-51-4	91





INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150410a
Client ID: BLKA150410a
Date Received: NA
Date Analyzed: 04/10/2015
Data file: G3144.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		4.00	1.87
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150410a
Client ID: BLKA150410a
Date Received: NA
Date Analyzed: 04/10/2015
Data file: G3144.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
Naphthalene	ND		1.00	0.653
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (54): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA150410a
Client ID: BLKA150410a
Date Received: NA
Date Analyzed: 04/10/2015
Data file: G3144.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3144.D
Acq On : 10 Apr 2015 10:26
Operator : Sylvia
Sample : BLKA150410a,BLKA150410a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 16:23:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	427211	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	695837	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	623571	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	272787	53.61	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 107.22%			
41) Toluene-d8	8.71	98	877890	49.65	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.30%			
59) Bromofluorobenzene	11.78	95	368312	49.75	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 99.50%			

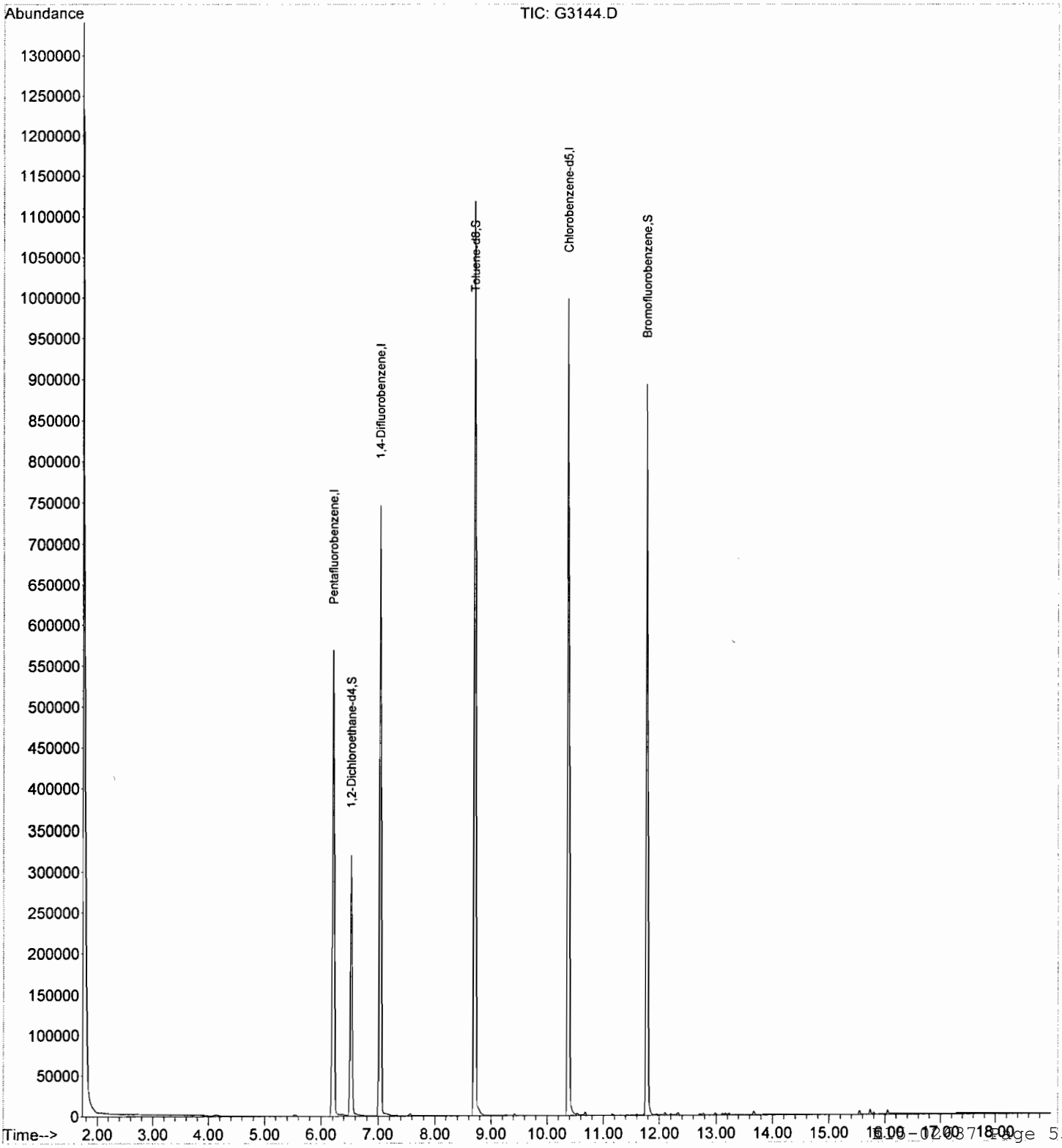
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3144.D
Acq On : 10 Apr 2015 10:26
Operator : Sylvia
Sample : BLKA150410a,BLKA150410a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 16:23:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3144.D
Acq On : 10 Apr 2015 10:26
Operator : Sylvia
Sample : BLKA150410a,BLKA150410a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8040115.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	844	856	878	rBV	568981	1277234	56.93%	13.718%
2	6.526	905	917	945	rBV	319075	712212	31.75%	7.649%
3	7.028	1001	1013	1030	rBV	746005	1564462	69.73%	16.803%
4	8.707	1319	1334	1373	rBV	1118445	2243518	100.00%	24.096%
5	10.375	1640	1653	1680	rBV	999374	1885870	84.06%	20.255%
6	11.777	1911	1921	1947	rBV	893831	1627521	72.54%	17.480%

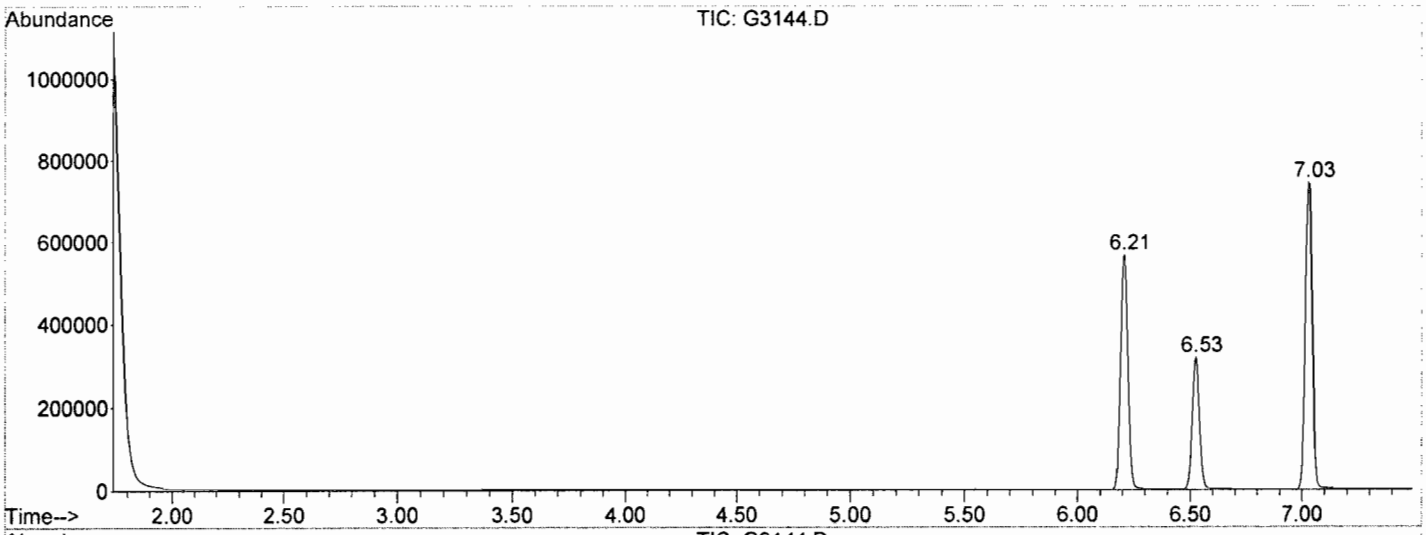
Sum of corrected areas: 9310817

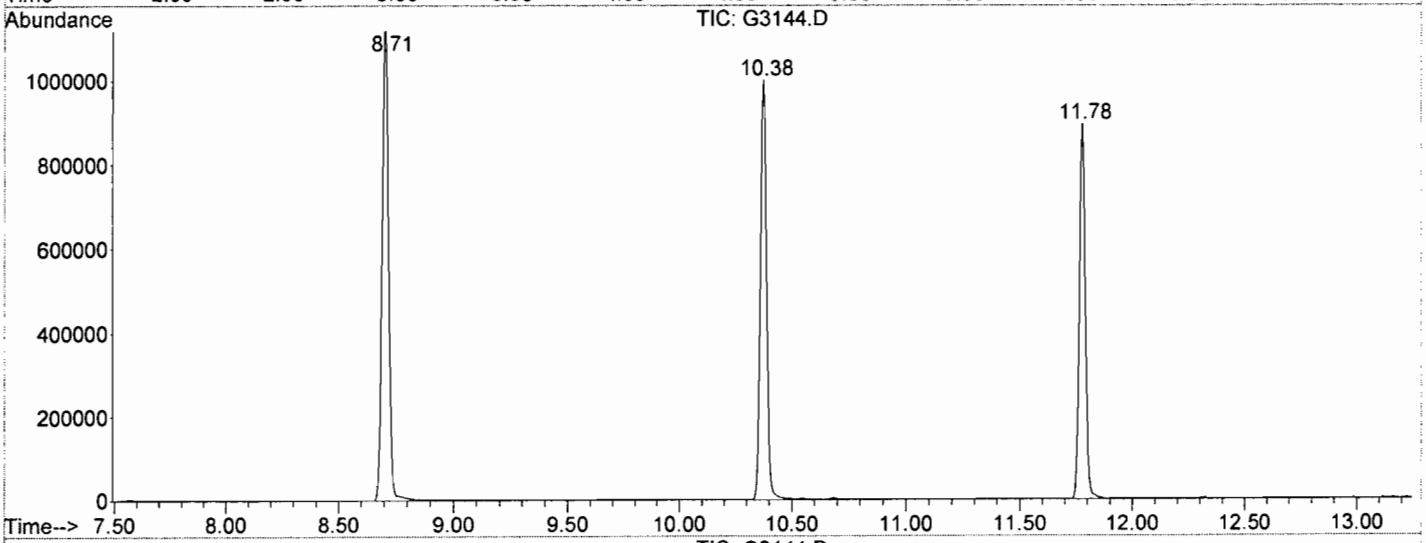
LSC Report - Integrated Chromatogram

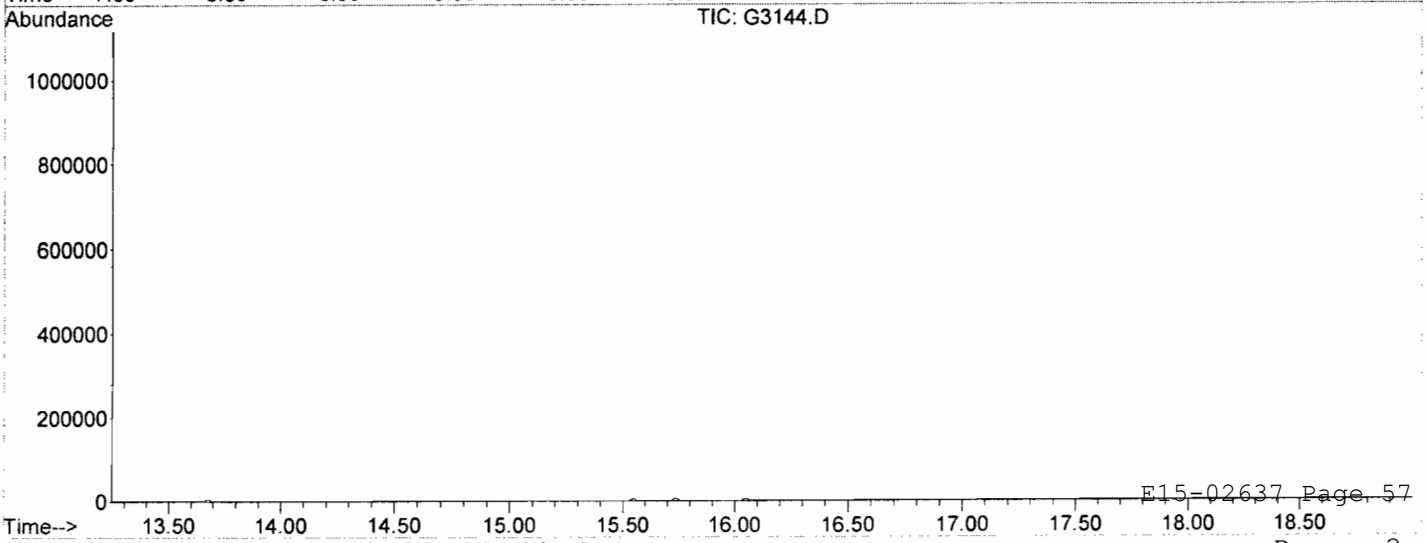
Data Path : C:\MSDChem\1\DATA\04-10-15\
Data File : G3144.D
Acq On : 10 Apr 2015 10:26
Operator : Sylvia
Sample : BLKA150410a,BLKA150410a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150413a
Client ID: BLKA150413a
Date Received: NA
Date Analyzed: 04/13/2015
Data file: G3170.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		4.00	1.87
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150413a
Client ID: BLKA150413a
Date Received: NA
Date Analyzed: 04/13/2015
Data file: G3170.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
Naphthalene	ND		1.00	0.653
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (54): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA150413a
Client ID: BLKA150413a
Date Received: NA
Date Analyzed: 04/13/2015
Data file: G3170.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-13-15\
Data File : G3170.D
Acq On : 13 Apr 2015 9:59
Operator : Sylvia
Sample : BLKA150413a,BLKA150413a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 13 14:53:39 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration

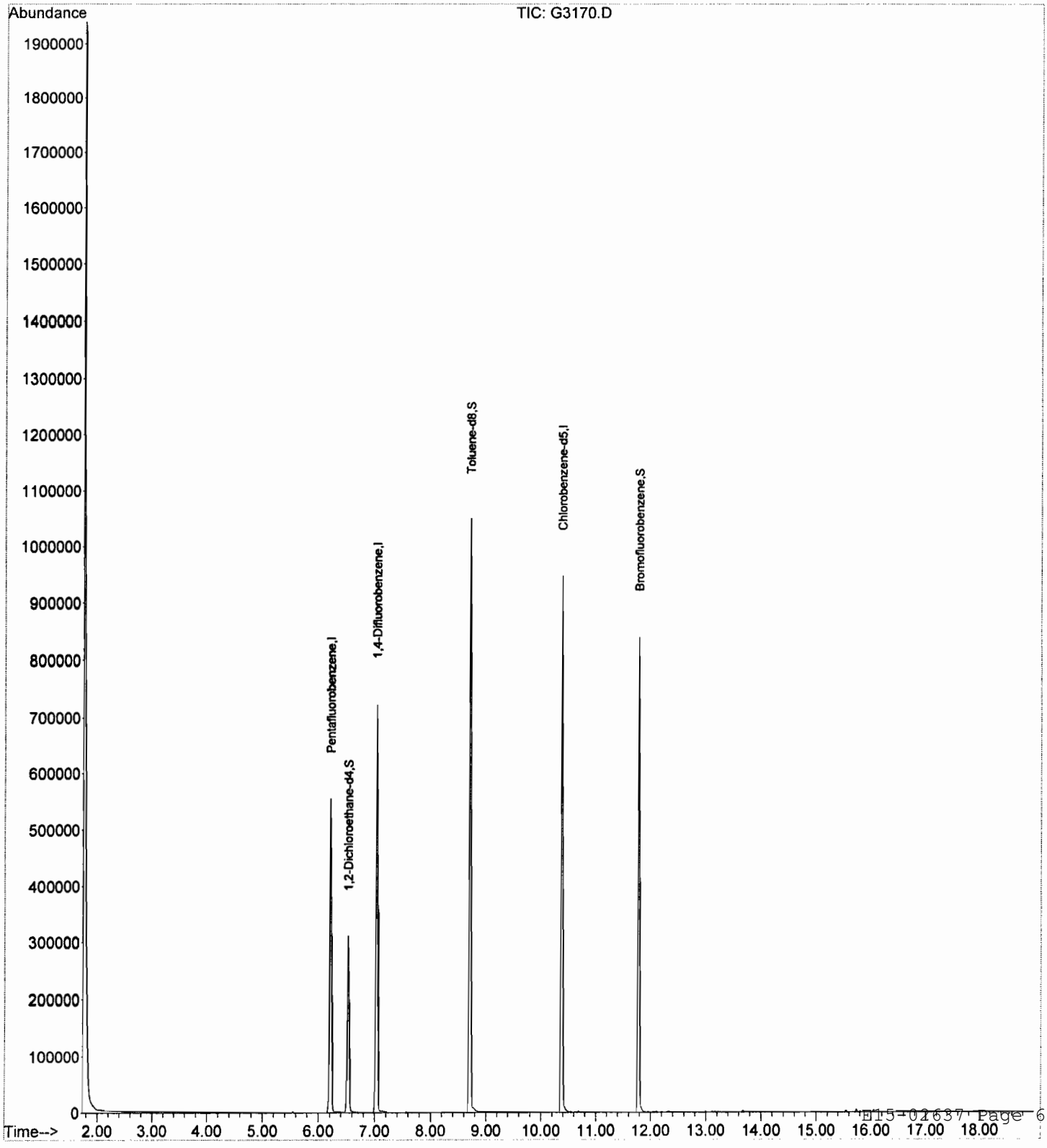
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	392758	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	634833	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	571143	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	269474	57.61	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 115.22%			
41) Toluene-d8	8.71	98	806387	49.99	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
59) Bromofluorobenzene	11.78	95	342656	50.54	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 101.08%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-13-15\
Data File : G3170.D
Acq On : 13 Apr 2015 9:59
Operator : Sylvia
Sample : BLKA150413a,BLKA150413a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 13 14:53:39 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Wed Apr 01 16:18:56 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\04-13-15\
Data File : G3170.D
Acq On : 13 Apr 2015 9:59
Operator : Sylvia
Sample : BLKA150413a,BLKA150413a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8040115.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	843	856	876	rBV	555612	1200186	57.69%	13.762%
2	6.526	906	917	943	rBV	310369	691105	33.22%	7.925%
3	7.028	1001	1013	1031	rBV	721614	1459424	70.15%	16.735%
4	8.707	1321	1334	1385	rBV	1048953	2080313	100.00%	23.855%
5	10.375	1641	1653	1680	rBV	946707	1756902	84.45%	20.146%
6	11.777	1910	1921	1949	rBV	838550	1532772	73.68%	17.576%

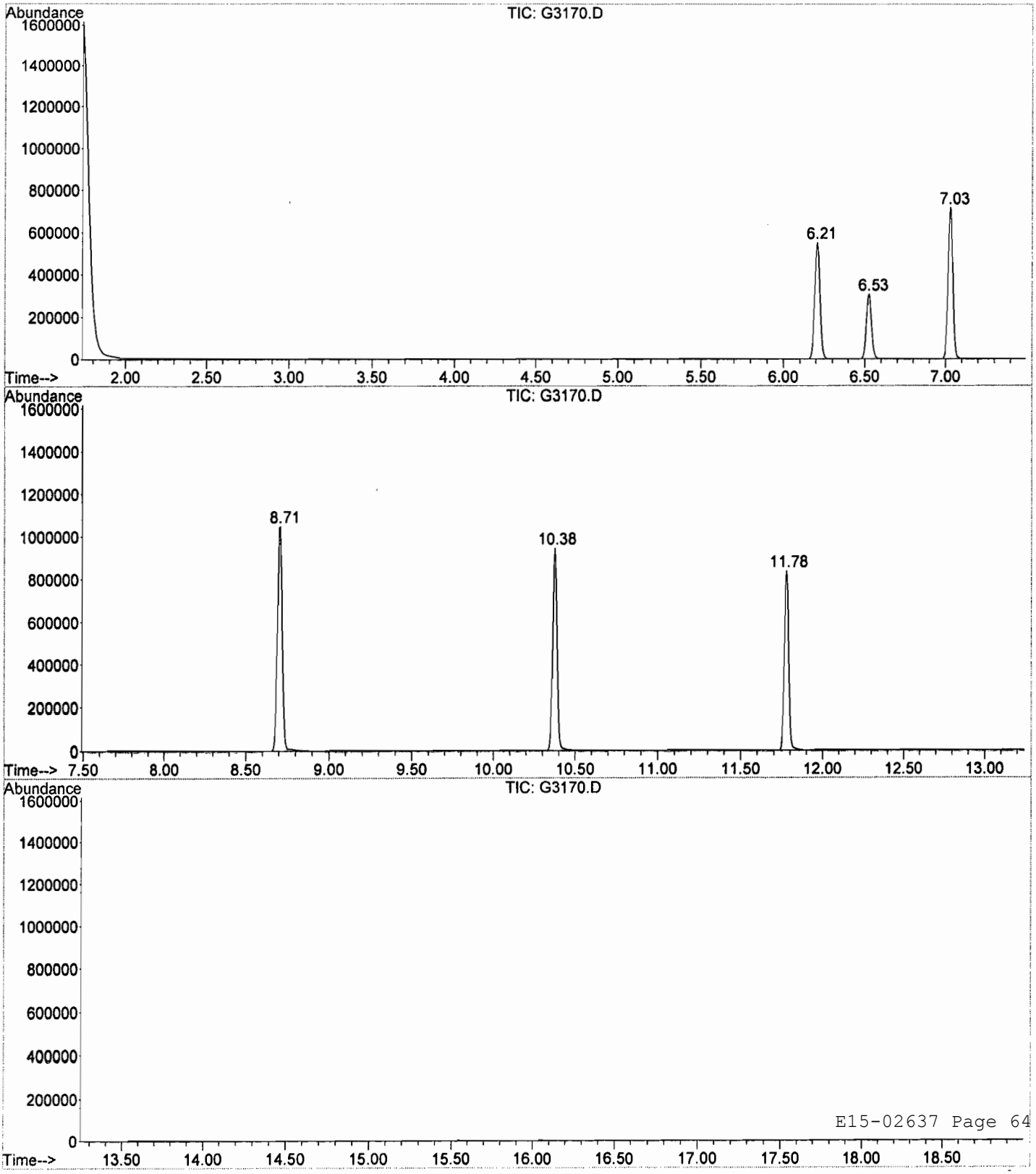
Sum of corrected areas: 8720702

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\04-13-15\
Data File : G3170.D
Acq On : 13 Apr 2015 9:59
Operator : Sylvia
Sample : BLKA150413a,BLKA150413a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8040115.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 04/07/2015

Lab Sample ID	Matrix	File ID	S1	#	S2	#	S3	#	S4	#	S5	#	S6	#
CCV040BNA2	AQUEOUS	B8687.D	N/A		N/A		N/A		N/A		N/A		N/A	
BLKA150406-04	AQUEOUS	B8688.D	22		14	$	61		56		51		63	
LCSA150406-04	AQUEOUS	B8689.D	30		23		59		52		55		65	
E15-02601-001MS	AQUEOUS	B8690.D	29		22		69		52		64		79	
E15-02601-001MSD	AQUEOUS	B8691.D	29		22		58		52		60		79	
E15-02601-001	AQUEOUS	B8692.D	N/A		N/A		77		68		N/A		88	
E15-02601-002	AQUEOUS	B8693.D	N/A		N/A		54		46		N/A		54	
E15-02601-003	AQUEOUS	B8694.D	N/A		N/A		58		50		N/A		56	
E15-02601-004	AQUEOUS	B8695.D	N/A		N/A		51		46		N/A		54	
E15-02601-005	AQUEOUS	B8696.D	N/A		N/A		55		50		N/A		64	
E15-02603-001	AQUEOUS	B8697.D	N/A		N/A		50		39		N/A		39	
E15-02616-001	AQUEOUS	B8698.D	N/A		N/A		55		48		N/A		47	
E15-02616-002	AQUEOUS	B8699.D	N/A		N/A		48		37		N/A		37	
E15-02630-001	AQUEOUS	B8700.D	N/A		N/A		55		50		N/A		58	
E15-02617-001	AQUEOUS	B8701.D	N/A		N/A		48		42		N/A		29	$
E15-02599-009	AQUEOUS	B8702.D	N/A		N/A		44		31		N/A		32	
E15-02599-008	AQUEOUS	B8703.D	N/A		N/A		43		29	$	N/A		23	$
E15-02600-001	AQUEOUS	B8704.D	N/A		N/A		54		49		N/A		49	
E15-02613-001	AQUEOUS	B8705.D	N/A		N/A		51		36		N/A		40	
E15-02637-001	AQUEOUS	B8706.D	N/A		N/A		42		37		N/A		44	
E15-02610-004	AQUEOUS	B8707.D	N/A		N/A		49		36		N/A		38	
E15-02610-005	AQUEOUS	B8708.D	N/A		N/A		50		44		N/A		49	

	DKQPs		IAL	
	Aqueous	Soil	Aqueous/Leachate	Soil
S1 (2FP) = 2-Fluorophenol	15-110	30-130	10-100	28-108
S2 (PHL) = Phenol-d5	15-110	30-130	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	30-130	30-130	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	30-130	30-130	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	15-110	30-130	22-115	35-126
S6 (TPH) = Terphenyl-d14	30-130	30-130	23-124	32-135

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference
N/A Not applicable

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 04/07/2015

Lab Sample ID	Matrix	File ID	S1	#	S2	#	S3	#	S4	#	S5	#	S6	#
E15-02610-006	AQUEOUS	B8709.D	N/A		N/A		51		36		N/A		40	
E15-02610-007	AQUEOUS	B8710.D	N/A		N/A		33		27	$	N/A		32	
E15-02610-008	AQUEOUS	B8711.D	N/A		N/A		43		40		N/A		39	

	DKQPs		IAL	
	Aqueous	Soil	Aqueous/Leachate	Soil
S1 (2FP) = 2-Fluorophenol	15-110	30-130	10-100	28-108
S2 (PHL) = Phenol-d5	15-110	30-130	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	30-130	30-130	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	30-130	30-130	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	15-110	30-130	22-115	35-126
S6 (TPH) = Terphenyl-d14	30-130	30-130	23-124	32-135

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference
N/A Not applicable

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150406-04
Date Received: NA
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
Data file: B8689.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Rec Limits IAL	Rec Limits DKQP
N-Nitrosodimethylamine	30.0	14.6	49	$	40-140	70-130
Pyridine	30.0	15.5	52		20-120	20-160
Benzaldehyde	30.0	4.3	14	$	10-110	20-160
Phenol	30.0	15.4	51		30-140	20-160
Aniline	30.0	20.6	69	$	40-140	70-130
Bis(2-chloroethyl) ether	30.0	19.4	65	$	40-140	70-130
2-Chlorophenol	30.0	16.7	56		30-140	20-160
1,3-Dichlorobenzene	30.0	16.7	56	$	40-140	70-130
1,4-Dichlorobenzene	30.0	15.9	53	$	40-140	70-130
Benzyl alcohol	30.0	16.3	54	$	40-140	70-130
1,2-Dichlorobenzene	30.0	17.6	59	$	40-140	70-130
2-Methylphenol	30.0	16.6	55		30-140	20-160
Bis(2-chloroisopropyl) ether	30.0	22.0	73		40-140	70-130
4-Methylphenol	30.0	16.7	56	$	30-140	70-130
N-Nitrosodi-n-propylamine	30.0	22.0	73		40-140	70-130
Acetophenone	30.0	22.1	74		40-140	70-130
3-Methylphenol	30.0	16.7	56		30-140	20-160
Hexachloroethane	30.0	16.5	55	$	40-140	70-130
Nitrobenzene	30.0	19.7	66	$	40-140	70-130
Isophorone	30.0	21.1	70		40-140	70-130
2-Nitrophenol	30.0	18.8	63		30-140	20-160
2,4-Dimethylphenol	30.0	21.1	70		30-140	20-160
Bis(2-chloroethoxy) methane	30.0	19.3	64	$	40-140	70-130
Benzoic acid	30.0	20.0	67		30-140	20-160
2,4-Dimethylaniline	30.0	20.3	68	$	40-140	70-130
2,4-Dichlorophenol	30.0	19.0	63		30-140	20-160
1,2,4-Trichlorobenzene	30.0	17.2	57	$	40-140	70-130
Naphthalene	30.0	17.5	58	$	40-140	70-130
4-Chloroaniline	30.0	19.5	65	$	40-140	70-130
Hexachlorobutadiene	30.0	16.9	56	$	40-140	70-130
Caprolactam	30.0	18.1	60	$	40-140	70-130
4-Chloro-3-methylphenol	30.0	22.1	74		30-140	20-160
2-Methylnaphthalene	30.0	19.9	66	$	40-140	70-130
Hexachlorocyclopentadiene	30.0	15.4	51		5-105	20-160
2,4,6-Trichlorophenol	30.0	17.8	59		30-140	20-160
2,4,5-Trichlorophenol	30.0	19.7	66		30-140	20-160
1,1'-Biphenyl	30.0	19.2	64	$	40-140	70-130
2-Chloronaphthalene	30.0	17.6	59	$	40-140	70-130
2-Nitroaniline	30.0	25.8	86		40-140	70-130
Dimethyl phthalate	30.0	16.2	54	$	40-140	70-130
2,6-Dinitrotoluene	30.0	22.8	76		40-140	70-130
Acenaphthylene	30.0	18.6	62	$	40-140	70-130
3-Nitroaniline	30.0	22.2	74		40-140	70-130
Acenaphthene	30.0	18.7	62		40-140	20-160
2,4-Dinitrophenol	30.0	18.7	62		5-105	20-160

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150406-04
Date Received: NA
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
Data file: B8689.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Rec Limits IAL	Rec Limits DKQP
4-Nitrophenol	30.0	21.1	70		30-140	20-160
2,4-Dinitrotoluene	30.0	24.5	82		40-140	70-130
Dibenzofuran	30.0	19.4	65	$	40-140	70-130
Diethyl phthalate	30.0	20.9	70		40-140	70-130
Fluorene	30.0	20.4	68	$	40-140	70-130
4-Chlorophenyl phenyl ether	30.0	20.8	69	$	40-140	70-130
4-Nitroaniline	30.0	20.9	70		40-140	70-130
1,2,4,5-Tetrachlorobenzene	30.0	18.3	61	$	40-140	70-130
2,3,4,6-Tetrachlorophenol	30.0	20.5	68	$	40-140	70-130
4,6-Dinitro-2-methylphenol	30.0	21.9	73		10-110	20-160
N-Nitrosodiphenylamine	30.0	20.6	69	$	40-140	70-130
1,2-Diphenylhydrazine	30.0	19.6	65	$	40-140	70-130
4-Bromophenyl phenyl ether	30.0	19.1	64	$	40-140	70-130
Hexachlorobenzene	30.0	19.4	65	$	40-140	70-130
Atrazine	30.0	23.9	80		20-120	20-160
Pentachlorophenol	30.0	20.9	70		30-140	20-160
Phenanthrene	30.0	20.3	68	$	40-140	70-130
Anthracene	30.0	21.4	71		40-140	70-130
Carbazole	30.0	22.8	76		40-140	70-130
Di-n-butyl phthalate	30.0	23.8	79		40-140	70-130
Fluoranthene	30.0	22.1	74		40-140	70-130
Benzidine	30.0	6.6	22		5-105	20-160
Pyrene	30.0	22.0	73		40-140	70-130
3,3'-Dimethylbenzidine	30.0	7.3	24		5-105	20-160
Butyl benzyl phthalate	30.0	23.9	80		40-140	70-130
3,3'-Dichlorobenzidine	30.0	24.8	83		40-140	70-130
Benzo[a]anthracene	30.0	22.5	75		40-140	70-130
Chrysene	30.0	23.0	77		40-140	70-130
Bis(2-ethylhexyl) phthalate	30.0	24.1	80		40-140	70-130
Di-n-octyl phthalate	30.0	33.1	110		40-140	70-130
Benzo[b]fluoranthene	30.0	27.4	91		40-140	70-130
Benzo[k]fluoranthene	30.0	30.9	103		40-140	70-130
Benzo[a]pyrene	30.0	29.1	97		40-140	70-130
Indeno[1,2,3-cd]pyrene	30.0	24.2	81		40-140	70-130
Dibenz[a,h]anthracene	30.0	24.7	82		40-140	70-130
Benzo[g,h,i]perylene	30.0	23.8	79		40-140	70-130

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

$ Values outside of NJ DKQP limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E15-02601-001
Date Received: 04/03/2015
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
MS Data file: B8690.D
MSD Data file: B8691.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Rec/RPD limits IAL	DKQP
N-Nitrosodimethylamine	40.0	0.0	18.3	46	$	17.1	43	$	7		40-140/20	70-130/20
Pyridine	40.0	0.0	17.9	45		16.9	42		6		20-120/20	20-160/20
Benzaldehyde	40.0	0.0	19.8	50		18.7	47		6		10-110/20	20-160/20
Phenol	40.0	0.0	16.7	42		16.3	41		2		30-140/20	20-160/20
Aniline	40.0	0.0	22.1	55	$	20.7	52	$	7		40-140/20	70-130/20
Bis(2-chloroethyl) ether	40.0	0.0	22.6	57	$	21.9	55	$	3		40-140/20	70-130/20
2-Chlorophenol	40.0	0.0	12.9	32		13.3	33		3		30-140/20	20-160/20
1,3-Dichlorobenzene	40.0	0.0	18.9	47	$	19.1	48	$	1		40-140/20	70-130/20
1,4-Dichlorobenzene	40.0	0.0	17.8	45	$	17.7	44	$	1		40-140/20	70-130/20
Benzyl alcohol	40.0	0.0	18.5	46	$	17.1	43	$	8		40-140/20	70-130/20
1,2-Dichlorobenzene	40.0	0.0	19.1	48	$	19.3	48	$	1		40-140/20	70-130/20
2-Methylphenol	40.0	0.0	17.5	44		19.6	49		11		30-140/20	20-160/20
Bis(2-chloroisopropyl) ether	40.0	0.0	24.6	62	$	24.8	62	$	1		40-140/20	70-130/20
4-Methylphenol	40.0	0.0	12.9	32	$	12.6	32	$	2		30-140/20	70-130/20
N-Nitrosodi-n-propylamine	40.0	0.0	24.8	62	$	24.9	62	$	0		40-140/20	70-130/20
Acetophenone	40.0	0.0	24.3	61	$	24.3	61	$	0		40-140/20	70-130/20
3-Methylphenol	40.0	0.0	12.9	32		12.7	32		2		30-140/20	20-160/20
Hexachloroethane	40.0	0.0	17.8	45	$	17.4	44	$	2		40-140/20	70-130/20
Nitrobenzene	40.0	0.0	26.6	67	$	24.4	61	$	9		40-140/20	70-130/20
Isophorone	40.0	0.0	29.2	73		23.9	60	$	20		40-140/20	70-130/20
2-Nitrophenol	40.0	0.0	24.5	61		20.9	52		16		30-140/20	20-160/20
2,4-Dimethylphenol	40.0	0.0	12.0	30		13.0	33		8		30-140/20	20-160/20
Bis(2-chloroethoxy) methane	40.0	0.0	25.6	64	$	21.3	53	$	18		40-140/20	70-130/20
Benzoic acid	40.0	0.0	28.9	72		26.2	66		10		30-140/20	20-160/20
2,4-Dimethylaniline	40.0	0.0	27.3	68	$	23.5	59	$	15		40-140/20	70-130/20
2,4-Dichlorophenol	40.0	0.0	18.3	46		16.4	41		11		30-140/20	20-160/20
1,2,4-Trichlorobenzene	40.0	0.0	23.2	58	$	19.2	48	$	19		40-140/20	70-130/20
Naphthalene	40.0	0.0	23.5	59	$	19.3	48	$	20		40-140/20	70-130/20
4-Chloroaniline	40.0	0.0	25.8	65	$	22.8	57	$	12		40-140/20	70-130/20
Hexachlorobutadiene	40.0	0.0	23.2	58	$	22.4	56	$	4		40-140/20	70-130/20
Caprolactam	40.0	0.0	38.4	96		37.0	93		4		40-140/20	70-130/20
4-Chloro-3-methylphenol	40.0	0.0	22.2	56		22.3	56		0		30-140/20	20-160/20
2-Methylnaphthalene	40.0	0.0	27.1	68	$	22.3	56	$	19		40-140/20	70-130/20
Hexachlorocyclopentadiene	40.0	0.0	20.3	51		19.4	49		5		5-105/20	20-160/20
2,4,6-Trichlorophenol	40.0	0.0	18.3	46		16.8	42		9		30-140/20	20-160/20
2,4,5-Trichlorophenol	40.0	0.0	20.6	52		20.2	51		2		30-140/20	20-160/20
1,1'-Biphenyl	40.0	0.0	23.5	59	$	22.8	57	$	3		40-140/20	70-130/20
2-Chloronaphthalene	40.0	0.0	21.2	53	$	20.4	51	$	4		40-140/20	70-130/20
2-Nitroaniline	40.0	0.0	34.6	87		31.8	80		8		40-140/20	70-130/20
Dimethyl phthalate	40.0	0.0	22.1	55	$	20.6	52	$	7		40-140/20	70-130/20
2,6-Dinitrotoluene	40.0	0.0	30.6	77		28.7	72		6		40-140/20	70-130/20
Acenaphthylene	40.0	0.0	23.1	58	$	22.3	56	$	4		40-140/20	70-130/20
3-Nitroaniline	40.0	0.0	29.4	74		26.6	67	$	10		40-140/20	70-130/20
Acenaphthene	40.0	0.0	22.9	57		22.3	56		3		40-140/20	20-160/20
2,4-Dinitrophenol	40.0	0.0	26.2	66		23.2	58		12		5-105/20	20-160/20

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD ACCURACY REPORT

Lab ID: E15-02601-001
Date Received: 04/03/2015
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
MS Data file: B8690.D
MSD Data file: B8691.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	% RPD	#	Rec/RPD IAL Limits	Rec/RPD DKQP Limits
4-Nitrophenol	40.0	0.0	27.8	70		24.8	62		11		30-140/20	20-160/20
2,4-Dinitrotoluene	40.0	0.0	34.0	85		32.6	82		4		40-140/20	70-130/20
Dibenzofuran	40.0	0.0	24.1	60	$	22.5	56	$	7		40-140/20	70-130/20
Diethyl phthalate	40.0	0.0	28.8	72		26.8	67	$	7		40-140/20	70-130/20
Fluorene	40.0	0.0	26.2	66	$	24.3	61	$	8		40-140/20	70-130/20
4-Chlorophenyl phenyl ether	40.0	0.0	26.6	67	$	24.2	61	$	9		40-140/20	70-130/20
4-Nitroaniline	40.0	0.0	31.9	80		27.4	69	$	15		40-140/20	70-130/20
1,2,4,5-Tetrachlorobenzene	40.0	0.0	20.7	52	$	21.3	53	$	3		40-140/20	70-130/20
2,3,4,6-Tetrachlorophenol	40.0	0.0	23.6	59	$	21.5	54	$	9		40-140/20	70-130/20
4,6-Dinitro-2-methylphenol	40.0	0.0	31.9	80		30.8	77		4		10-110/20	20-160/20
N-Nitrosodiphenylamine	40.0	0.0	29.4	74		26.7	67	$	10		40-140/20	70-130/20
1,2-Diphenylhydrazine	40.0	0.0	27.1	68	$	24.4	61	$	10		40-140/20	70-130/20
4-Bromophenyl phenyl ether	40.0	0.0	28.3	71		24.9	62	$	13		40-140/20	70-130/20
Hexachlorobenzene	40.0	0.0	26.7	67	$	24.2	61	$	10		40-140/20	70-130/20
Atrazine	40.0	0.0	31.9	80		31.2	78		2		20-120/20	20-160/20
Pentachlorophenol	40.0	0.0	26.7	67		21.8	55		20		30-140/20	20-160/20
Phenanthrene	40.0	0.0	28.3	71		26.3	66	$	7		40-140/20	70-130/20
Anthracene	40.0	0.0	29.6	74		27.1	68	$	9		40-140/20	70-130/20
Carbazole	40.0	0.0	30.0	75		28.9	72		4		40-140/20	70-130/20
Di-n-butyl phthalate	40.0	0.0	33.7	84		31.6	79		6		40-140/20	70-130/20
Fluoranthene	40.0	0.0	29.9	75		28.7	72		4		40-140/20	70-130/20
Benzidine	40.0	0.0	5.7	14	$	6.1	15	$	7		5-105/20	20-160/20
Pyrene	40.0	0.0	31.0	78		31.5	79		2		40-140/20	70-130/20
3,3'-Dimethylbenzidine	40.0	0.0	7.6	19	$	7.1	18	$	7		5-105/20	20-160/20
Butyl benzyl phthalate	40.0	0.0	33.3	83		34.1	85		2		40-140/20	70-130/20
3,3'-Dichlorobenzidine	40.0	0.0	26.0	65	$	28.1	70		8		40-140/20	70-130/20
Benzo[a]anthracene	40.0	0.0	30.8	77		30.4	76		1		40-140/20	70-130/20
Chrysene	40.0	0.0	31.5	79		31.1	78		1		40-140/20	70-130/20
Bis(2-ethylhexyl) phthalate	40.0	0.0	34.5	86		34.1	85		1		40-140/20	70-130/20
Di-n-octyl phthalate	40.0	0.0	45.9	115		45.3	113		1		40-140/20	70-130/20
Benzo[b]fluoranthene	40.0	0.0	39.4	99		37.0	93		6		40-140/20	70-130/20
Benzo[k]fluoranthene	40.0	0.0	40.1	100		41.5	104		3		40-140/20	70-130/20
Benzo[a]pyrene	40.0	0.0	40.3	101		39.8	100		1		40-140/20	70-130/20
Indeno[1,2,3-cd]pyrene	40.0	0.0	35.8	90		36.8	92		3		40-140/20	70-130/20
Dibenz[a,h]anthracene	40.0	0.0	36.6	92		37.7	94		3		40-140/20	70-130/20
Benzo[g,h,i]perylene	40.0	0.0	35.5	89		36.9	92		4		40-140/20	70-130/20

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B8688.D Instrument ID: MSDB

Date Extracted: 04/06/15 Matrix: AQUEOUS

Date Analyzed: 04/07/2015 Time Analyzed: 17:52

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSA150406-04	04/07/2015	18:10
.	E15-02601-001MS	04/07/2015	18:27
.	E15-02601-001MSD	04/07/2015	18:44
MW-6	E15-02601-001	04/07/2015	19:01
MW-3	E15-02601-002	04/07/2015	19:18
MW-9	E15-02601-003	04/07/2015	19:35
MW-7	E15-02601-004	04/07/2015	19:52
FB	E15-02601-005	04/07/2015	20:09
MW-1	E15-02603-001	04/07/2015	20:26
K01	E15-02616-001	04/07/2015	20:44
K02	E15-02616-002	04/07/2015	21:00
MW-1/8.8	E15-02630-001	04/07/2015	21:18
POTABLE_	E15-02617-001	04/07/2015	21:35
GW-1	E15-02599-009	04/07/2015	21:52
TWP-1_/7	E15-02599-008	04/07/2015	22:09
MW-1/12.	E15-02600-001	04/07/2015	22:26
TWP-1/12	E15-02613-001	04/07/2015	22:43
M-1R(11-	E15-02637-001	04/07/2015	23:00
TWP-1_04	E15-02610-004	04/07/2015	23:16
TWP-2_04	E15-02610-005	04/07/2015	23:34
TWP-3_04	E15-02610-006	04/07/2015	23:51
TWP-4_04	E15-02610-007	04/08/2015	00:08
TWP-5_04	E15-02610-008	04/08/2015	00:25

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B8664.D

Instrument ID: MSDB

Date Extracted: 04/06/15

Matrix: AQUEOUS

Date Analyzed: 04/07/2015

Time Analyzed: 11:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-6	E15-02601-001	04/07/2015	11:42
MW-3	E15-02601-002	04/07/2015	11:58
MW-9	E15-02601-003	04/07/2015	12:14
MW-7	E15-02601-004	04/07/2015	12:30
FB	E15-02601-005	04/07/2015	12:46
MW-1	E15-02603-001	04/07/2015	13:02
K01	E15-02616-001	04/07/2015	13:18
K02	E15-02616-002	04/07/2015	13:34
MW-1/8.8	E15-02630-001	04/07/2015	13:49
POTABLE_	E15-02617-001	04/07/2015	14:05
GW-1	E15-02599-009	04/07/2015	14:21
TWP-1_/7	E15-02599-008	04/07/2015	14:37
MW-1/12.	E15-02600-001	04/07/2015	14:53
TWP-1/12	E15-02613-001	04/07/2015	15:09
M-1R(11-	E15-02637-001	04/07/2015	15:25
TWP-1_04	E15-02610-004	04/07/2015	15:41
TWP-2_04	E15-02610-005	04/07/2015	15:57
TWP-3_04	E15-02610-006	04/07/2015	16:12
TWP-4_04	E15-02610-007	04/07/2015	16:28
TWP-5_04	E15-02610-008	04/07/2015	16:44

FORM IV SV

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8169.D

DFTPP Injection Date : 03/23/2015

Inst ID: MSDB

DFTPP Injection Time: 09:02

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	40.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	43.6	
70	Less than 2.0% of mass 69	0.4	(1.0)1
127	40.0 - 60.0% of mass 198	51.5	
197	Less than 1.0% of mass 198	0.8	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.3	
275	10.0 - 30.0% of mass 198	23.3	
365	Greater than 1.0% of mass 198	2.0	
441	Present, but less than mass 443	8.99	(63.6)3
442	40.0 - 100.0% of mass 198	70.3	
443	17.0 - 23.0% of mass 442	14.1	(20.1)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN011-15	ICC040BNA1	B8170.D	03/23/2015	09:12
ABN008-15	ICC001BNA1	B8171.D	03/23/2015	09:29
ABN009-15	ICC010BNA1	B8172.D	03/23/2015	09:46
ABN010-15	ICC020BNA1	B8173.D	03/23/2015	10:03
ABN012-15	ICC080BNA1	B8174.D	03/23/2015	10:20
ABN013-15	ICC160BNA1	B8175.D	03/23/2015	10:37
ABN019-15	ICC160BNA2	B8176.D	03/23/2015	10:54
ABN018-15	ICC080BNA2	B8177.D	03/23/2015	11:11
ABN017-15	ICC040BNA2	B8178.D	03/23/2015	11:28
ABN016-15	ICC020BNA2	B8179.D	03/23/2015	11:45
ABN015-15	ICC010BNA2	B8180.D	03/23/2015	12:02
ABN014-15	ICC001BNA2	B8181.D	03/23/2015	12:20
ABN004-15	ICV040BNA1	B8187.D	03/23/2015	13:56
ABN031-15	ICV040BNA2	B8188.D	03/23/2015	14:13

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8169.D

DFTPP Injection Date : 03/23/2015

Inst ID: MSDB

DFTPP Injection Time: 09:02

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	40.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	43.6	
70	Less than 2.0% of mass 69	0.4	(1.0)1
127	40.0 - 60.0% of mass 198	51.5	
197	Less than 1.0% of mass 198	0.8	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.3	
275	10.0 - 30.0% of mass 198	23.3	
365	Greater than 1.0% of mass 198	2.0	
441	Present, but less than mass 443	8.99	(63.6)3
442	40.0 - 100.0% of mass 198	70.3	
443	17.0 - 23.0% of mass 442	14.1	(20.1)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN027-15	ICC000.5SIM	B8182.D	03/23/2015	12:36
ABN025-15	ICC000.1SIM	B8183.D	03/23/2015	12:52
ABN026-15	ICC000.2SIM	B8184.D	03/23/2015	13:08
ABN028-15	ICC0001SIM	B8185.D	03/23/2015	13:24
ABN029-15	ICC0002SIM	B8186.D	03/23/2015	13:39
ABN030-15	ICV000.5SIM	B8189.D	03/23/2015	14:30

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8685.D DFTPP Injection Date : 04/07/2015

Inst ID: MSDB DFTPP Injection Time: 17:07

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	38.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	41.0	
70	Less than 2.0% of mass 69	0.2	(0.6)1
127	40.0 - 60.0% of mass 198	48.5	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.8	
275	10.0 - 30.0% of mass 198	27.3	
365	Greater than 1.0% of mass 198	2.8	
441	Present, but less than mass 443	10.12	(67.6)3
442	40.0 - 100.0% of mass 198	74.5	
443	17.0 - 23.0% of mass 442	15.0	(20.1)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN004-15	CCV040BNA1	B8686.D	04/07/2015	17:18
ABN031-15	CCV040BNA2	B8687.D	04/07/2015	17:35
.	BLKA150406-04	B8688.D	04/07/2015	17:52
.	LCSA150406-04	B8689.D	04/07/2015	18:10
.	E15-02601-001MS	B8690.D	04/07/2015	18:27
.	E15-02601-001MSD	B8691.D	04/07/2015	18:44
MW-6	E15-02601-001	B8692.D	04/07/2015	19:01
MW-3	E15-02601-002	B8693.D	04/07/2015	19:18
MW-9	E15-02601-003	B8694.D	04/07/2015	19:35
MW-7	E15-02601-004	B8695.D	04/07/2015	19:52
FB	E15-02601-005	B8696.D	04/07/2015	20:09
MW-1	E15-02603-001	B8697.D	04/07/2015	20:26
K01	E15-02616-001	B8698.D	04/07/2015	20:44
K02	E15-02616-002	B8699.D	04/07/2015	21:00
MW-1/8.8	E15-02630-001	B8700.D	04/07/2015	21:18
POTABLE_	E15-02617-001	B8701.D	04/07/2015	21:35
GW-1	E15-02599-009	B8702.D	04/07/2015	21:52
TWP-1_/7	E15-02599-008	B8703.D	04/07/2015	22:09
MW-1/12.	E15-02600-001	B8704.D	04/07/2015	22:26
TWP-1/12	E15-02613-001	B8705.D	04/07/2015	22:43
M-1R(11-	E15-02637-001	B8706.D	04/07/2015	23:00
TWP-1_04	E15-02610-004	B8707.D	04/07/2015	23:16
TWP-2_04	E15-02610-005	B8708.D	04/07/2015	23:34

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8685.D DFTPP Injection Date : 04/07/2015

Inst ID: MSDB DFTPP Injection Time: 17:07

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	38.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	41.0	
70	Less than 2.0% of mass 69	0.2	(0.6)1
127	40.0 - 60.0% of mass 198	48.5	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.8	
275	10.0 - 30.0% of mass 198	27.3	
365	Greater than 1.0% of mass 198	2.8	
441	Present, but less than mass 443	10.12	(67.6)3
442	40.0 - 100.0% of mass 198	74.5	
443	17.0 - 23.0% of mass 442	15.0	(20.1)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
TWP-3_04	E15-02610-006	B8709.D	04/07/2015	23:51
TWP-4_04	E15-02610-007	B8710.D	04/08/2015	00:08
TWP-5_04	E15-02610-008	B8711.D	04/08/2015	00:25

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8662.D

DFTPP Injection Date : 04/07/2015

Inst ID: MSDB

DFTPP Injection Time: 11:01

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	51.6	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	56.0	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	40.0 - 60.0% of mass 198	59.8	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.3	
275	10.0 - 30.0% of mass 198	26.3	
365	Greater than 1.0% of mass 198	2.5	
441	Present, but less than mass 443	11.31	(72.4)3
442	40.0 - 100.0% of mass 198	72.3	
443	17.0 - 23.0% of mass 442	15.6	(21.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN030-15	CCV000.5SIM	B8663.D	04/07/2015	11:11
.	BLKA150406-04	B8664.D	04/07/2015	11:27
MW-6	E15-02601-001	B8665.D	04/07/2015	11:42
MW-3	E15-02601-002	B8666.D	04/07/2015	11:58
MW-9	E15-02601-003	B8667.D	04/07/2015	12:14
MW-7	E15-02601-004	B8668.D	04/07/2015	12:30
FB	E15-02601-005	B8669.D	04/07/2015	12:46
MW-1	E15-02603-001	B8670.D	04/07/2015	13:02
K01	E15-02616-001	B8671.D	04/07/2015	13:18
K02	E15-02616-002	B8672.D	04/07/2015	13:34
MW-1/8.8	E15-02630-001	B8673.D	04/07/2015	13:49
POTABLE_	E15-02617-001	B8674.D	04/07/2015	14:05
GW-1	E15-02599-009	B8675.D	04/07/2015	14:21
TWP-1_/7	E15-02599-008	B8676.D	04/07/2015	14:37
MW-1/12.	E15-02600-001	B8677.D	04/07/2015	14:53
TWP-1/12	E15-02613-001	B8678.D	04/07/2015	15:09
M-1R(11-	E15-02637-001	B8679.D	04/07/2015	15:25
TWP-1_04	E15-02610-004	B8680.D	04/07/2015	15:41
TWP-2_04	E15-02610-005	B8681.D	04/07/2015	15:57
TWP-3_04	E15-02610-006	B8682.D	04/07/2015	16:12
TWP-4_04	E15-02610-007	B8683.D	04/07/2015	16:28
TWP-5_04	E15-02610-008	B8684.D	04/07/2015	16:44

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BW0315.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Mar 23 14:29:17 2015
Response Via : Initial Calibration

DO
JE

Calibration Files
1 =B8171.D 10 =B8172.D 20 =B8173.D
40 =B8170.D 80 =B8174.D 160 =B8175.D =

		Compound	1	10	20	40	80	160	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.646	0.593	0.633	0.641	0.619	0.654	0.631	3.50
3)	T	Pyridine	0.732	0.664	0.702	0.688	0.698	0.720	0.701	3.41
4)	S	2-Fluorophenol	1.149	1.177	1.217	1.202	1.193	1.224	1.194	2.30
5)	T	Benzaldehyde	0.372	0.374	0.449	0.323	0.309	0.317	0.357	14.81
6)	S	Phenol-d5	1.412	1.434	1.437	1.444	1.381	1.441	1.425	1.70
7)	MC	Phenol	1.918	1.638	1.621	1.663	1.551	1.598	1.665	7.80
8)	T	Aniline	0.542	0.555	0.552	0.529	0.425	0.420	0.504	12.61
9)	T	Bis(2-chloroethyl	0.766	0.663	0.687	0.660	0.663	0.712	0.692	5.99
10)	M	2-Chlorophenol	1.585	1.297	1.428	1.432	1.374	1.450	1.428	6.66
11)	T	1,3-Dichlorobenze	1.585	1.534	1.549	1.588	1.562	1.641	1.576	2.40
12)	MC	1,4-Dichlorobenze	1.791	1.595	1.634	1.607	1.626	1.632	1.648	4.35
13)	T	Benzyl alcohol	0.921	0.771	0.800	0.837	0.808	0.835	0.829	6.21
14)	T	1,2-Dichlorobenze	1.519	1.421	1.479	1.499	1.489	1.527	1.489	2.54
15)	T	2-Methylphenol	1.244	1.108	1.102	1.100	1.094	1.123	1.128	5.08
16)	T	Bis(2-chloroisopr	1.293	1.080	1.113	1.120	1.094	1.110	1.135	6.95
17)	T	4-Methylphenol	1.221	1.116	1.145	1.128	1.107	1.147	1.144	3.56
18)	MP	N-Nitrosodi-n-pro	0.788	0.732	0.740	0.753	0.723	0.746	0.747	3.04
19)	T	Acetophenone	1.886	1.481	1.596	1.554	1.530	1.566	1.602	9.00
20)	T	3-Methylphenol	1.221	1.116	1.145	1.127	1.108	1.147	1.144	3.56
21)	T	Hexachloroethane	0.717	0.502	0.535	0.535	0.526	0.543	0.560	14.02
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.312	0.302	0.320	0.319	0.336	0.281	0.312	6.08
25)	T	Nitrobenzene	0.374	0.281	0.297	0.295	0.291	0.287	0.304	11.34
26)	T	Isophorone	0.605	0.549	0.559	0.564	0.554	0.553	0.564	3.68
27)	TC	2-Nitrophenol	0.176	0.186	0.205	0.200	0.199	0.205	0.195	5.98
28)	T	2,4-Dimethylpheno	0.321	0.320	0.336	0.347	0.335	0.347	0.334	3.51
29)	T	Bis(2-chloroethox	0.383	0.340	0.348	0.358	0.345	0.347	0.354	4.40
30)	T	Benzoic acid	0.132	0.131	0.141	0.183	0.140	0.159	0.148	13.71
31)	T	2,4-Dimethylanili	0.418	0.374	0.391	0.357	0.370	0.363	0.379	5.88
32)	TC	2,4-Dichloropheno	0.348	0.325	0.337	0.345	0.338	0.346	0.340	2.53
33)	M	1,2,4-Trichlorobe	0.414	0.364	0.382	0.382	0.382	0.394	0.386	4.31
34)	T	Naphthalene	1.266	1.058	1.106	1.097	1.059	1.084	1.112	7.01
35)	T	4-Chloroaniline	0.635	0.522	0.555	0.536	0.543	0.538	0.555	7.31
36)	T	4-Aminotoluene	0.563	0.512	0.542	0.493	0.494	0.456	0.510	7.48
37)	TC	Hexachlorobutadie	0.263	0.245	0.250	0.244	0.253	0.257	0.252	2.88
38)	T	Caprolactam	0.095	0.094	0.093	0.092	0.085	0.086	0.091	4.58
39)	T	2-Aminotoluene	0.563	0.512	0.542	0.493	0.494	0.456	0.510	7.48
40)	MC	4-Chloro-3-methyl	0.308	0.278	0.290	0.280	0.281	0.284	0.287	3.86
41)	T	2-Methylnaphthale	0.779	0.685	0.739	0.713	0.696	0.715	0.721	4.68
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.331	0.245	0.312	0.353	0.393	0.417	0.342	17.90
45)	TC	2,4,6-Trichloroph	0.454	0.392	0.407	0.420	0.416	0.435	0.421	5.16
46)	T	2,4,5-Trichloroph	0.401	0.387	0.416	0.418	0.421	0.421	0.411	3.37
47)	S	2-Fluorobiphenyl	1.436	1.391	1.397	1.388	1.388	1.434	1.406	1.62
48)	T	1,1'-Biphenyl	1.521	1.330	1.401	1.433	1.426	1.468	1.430	4.49
49)	T	2-Chloronaphthale	1.232	1.057	1.124	1.121	1.170	1.131	1.139	5.11
50)	T	2-Nitroaniline	0.198	0.182	0.206	0.210	0.200	0.215	0.202	5.69
51)	T	Dimethyl phthalat	1.343	1.186	1.248	1.220	1.251	1.258	1.251	4.20
52)	T	2,6-Dinitrotoluen	0.186	0.221	0.234	0.240	0.256	0.267	0.234	12.22
53)	T	Acenaphthylene	1.815	1.683	1.767	1.758	1.764	1.670	1.743	3.18

54)	T	3-Nitroaniline	0.254	0.239	0.276	0.263	0.265	0.264		0.260	4.78
55)	MC	Acenaphthene	1.197	1.041	1.068	1.078	1.087	1.075		1.091	4.99
56)	TP	2,4-Dinitrophenol	0.112	0.079	0.095	0.083	0.097	0.119		0.097	16.00
57)	MP	4-Nitrophenol	0.137	0.138	0.137	0.155	0.152	0.161		0.147	7.37
58)	M	2,4-Dinitrotoluen	0.272	0.275	0.314	0.321	0.334	0.344		0.310	9.76
59)	T	Dibenzofuran	1.771	1.633	1.670	1.692	1.665	1.660		1.682	2.83
60)	T	Diethyl phthalate	1.273	1.181	1.200	1.201	1.185	1.179		1.203	2.93
61)	T	Fluorene	1.460	1.312	1.372	1.380	1.362	1.344		1.372	3.61
62)	T	4-Chlorophenyl ph	0.807	0.706	0.731	0.727	0.731	0.739		0.740	4.65
63)	T	4-Nitroaniline	0.274	0.258	0.281	0.281	0.291	0.292		0.280	4.46
64)		1,2,4,5-Tetrachlo	0.723	0.614	0.637	0.637	0.649	0.647		0.651	5.73
65)	T	2,3,4,6-Tetrachlo	0.572	0.541	0.598	0.413	0.395	0.396		0.486	19.48
66)	I	Phenanthrene-d10	----------ISTD----------								
67)	T	4,6-Dinitro-2-met	0.131	0.104	0.093	0.107	0.128	0.140		0.117	15.65
68)	TC	N-Nitrosodiphenyl	0.644	0.538	0.590	0.597	0.615	0.602		0.598	5.85
69)	T	1,2-Diphenylhydra	0.664	0.597	0.653	0.667	0.686	0.687		0.659	5.00
70)	S	2,4,6-Tribromophe	0.225	0.227	0.248	0.242	0.247	0.244		0.239	4.18
71)	T	4-Bromophenyl phe	0.302	0.275	0.298	0.292	0.306	0.308		0.297	4.04
72)	T	Hexachlorobenzene	0.383	0.337	0.372	0.369	0.370	0.375		0.368	4.35
73)	T	Atrazine	0.275	0.210	0.236	0.210	0.226	0.217		0.229	10.85
74)	MC	Pentachlorophenol	0.145	0.160	0.181	0.194	0.209	0.218		0.184	15.25
75)	T	Phenanthrene	1.294	1.035	1.116	1.109	1.133	1.040		1.121	8.38
76)	T	Anthracene	1.152	1.031	1.072	1.104	1.122	1.020		1.084	4.81
77)	T	Carbazole	1.042	0.870	0.914	0.910	0.939	0.886		0.927	6.58
78)	T	Di-n-butyl phthal	0.977	0.965	1.060	1.117	1.111	1.035		1.044	6.18
79)	TC	Fluoranthene	1.244	1.044	1.106	1.110	1.125	1.106		1.122	5.86
80)	T	Benzidine	0.627	0.453	0.533	0.485	0.415	0.398		0.485	17.46
82)	I	Chrysene-d12	----------ISTD----------								
83)	M	Pyrene	1.338	1.195	1.230	1.298	1.307	1.169		1.256	5.41
84)	S	Terphenyl-d14	1.244	1.170	1.177	1.197	1.159	1.036		1.164	5.95
85)	T	3,3'-Dimethylbenz	0.638	0.649	0.739	0.723	0.560	0.448		0.626	17.29
86)	T	Butyl benzyl phth	0.511	0.417	0.433	0.453	0.462	0.415		0.449	8.03
87)	T	3,3'-Dichlorobenz	0.423	0.388	0.414	0.390	0.325	0.301		0.373	13.24
88)	T	Benzo[a]anthracen	1.235	1.036	1.077	1.097	1.100	1.024		1.095	6.89
89)	T	Chrysene	1.112	0.948	0.970	1.009	1.000	0.935		0.996	6.43
90)	T	Bis(2-ethylhexyl)	0.540	0.559	0.581	0.642	0.646	0.589		0.593	7.30
92)	I	Perylene-d12	----------ISTD----------								
93)	TC	Di-n-octyl phthal	1.277	1.151	1.239	1.268	1.224	1.088		1.208	6.12
94)	T	Benzo[b]fluoranth	1.616	1.477	1.597	1.471	1.553	1.358		1.512	6.36
95)	T	Benzo[k]fluoranth	1.702	1.155	1.189	1.300	1.170	1.206		1.287	16.30
96)	TC	Benzo[a]pyrene	1.417	1.195	1.228	1.255	1.275	1.223		1.266	6.24
97)	T	Indeno[1,2,3-cd]p	1.777	1.486	1.582	1.786	1.871	1.760		1.710	8.48
98)	T	Dibenz[a,h]anthra	1.424	1.273	1.337	1.525	1.585	1.495		1.440	8.22
99)	T	Benzo[g,h,i]peryl	1.441	1.247	1.342	1.523	1.575	1.479		1.434	8.44

(#) = Out of Range

BW0315.M Mon Mar 23 14:29:20 2015 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\03-23-15\
Data File : B8187.D
Acq On : 23 Mar 2015 13:56
Operator : DANA
Sample : ABN004-15,ICV040BNA1,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 23 14:14:38 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Mar 23 12:50:37 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00
2	T	N-Nitrosodimethylamine	0.631	0.650	-3.0	93	0.00
3	T	Pyridine	0.701	0.741	-5.7	99	0.00
4	S	2-Fluorophenol	1.194	1.207	-1.1	92	0.00
5	T	Benzaldehyde	0.357	0.335	6.2	101	-0.02
6	S	Phenol-d5	1.425	1.466	-2.9	93	0.00
7	MC	Phenol	1.665	1.600	3.9	88	0.00
8	T	Aniline	0.504	0.532	-5.6	92	0.00
9	T	Bis(2-chloroethyl) ether	0.692	0.678	2.0	94	0.00
10	M	2-Chlorophenol	1.428	1.432	-0.3	92	0.00
11	T	1,3-Dichlorobenzene	1.576	1.616	-2.5	93	0.00
12	MC	1,4-Dichlorobenzene	1.648	1.684	-2.2	96	0.00
13	T	Benzyl alcohol	0.829	0.825	0.5	90	0.00
14	T	1,2-Dichlorobenzene	1.489	1.570	-5.4	96	0.00
15	T	2-Methylphenol	1.129	1.126	0.3	94	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.135	1.108	2.4	91	0.00
17	T	4-Methylphenol	1.144	1.165	-1.8	95	0.00
18	MP	N-Nitrosodi-n-propylamine	0.746	0.765	-2.5	94	0.00
19	T	Acetophenone	1.602	1.605	-0.2	95	0.00
20	T	3-Methylphenol	1.144	1.165	-1.8	95	0.00
21	T	Hexachloroethane	0.560	0.533	4.8	91	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	93	0.00
24	S	Nitrobenzene-d5	0.312	0.324	-3.8	95	0.00
25	T	Nitrobenzene	0.304	0.294	3.3	93	0.00
26	T	Isophorone	0.564	0.572	-1.4	95	0.00
27	TC	2-Nitrophenol	0.195	0.198	-1.5	92	0.00
28	T	2,4-Dimethylphenol	0.334	0.343	-2.7	92	0.00
29	T	Bis(2-chloroethoxy) methane	0.354	0.358	-1.1	94	0.00
30	T	Benzoic acid	0.147	0.176	-19.7	90	0.00
31	T	2,4-Dimethylaniline	0.379	0.355	6.3	93	0.00
32	TC	2,4-Dichlorophenol	0.340	0.344	-1.2	93	0.00
33	M	1,2,4-Trichlorobenzene	0.386	0.378	2.1	93	0.00
34	T	Naphthalene	1.112	1.093	1.7	93	0.00
35	T	4-Chloroaniline	0.555	0.549	1.1	96	0.00
36	T	4-Aminotoluene	0.510	0.494	3.1	94	0.00
37	TC	Hexachlorobutadiene	0.252	0.251	0.4	96	0.00
38	T	Caprolactam	0.091	0.094	-3.3	95	0.00
39	T	2-Aminotoluene	0.510	0.494	3.1	94	0.00
40	MC	4-Chloro-3-methylphenol	0.287	0.281	2.1	94	0.00
41	T	2-Methylnaphthalene	0.721	0.716	0.7	94	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00
44	TP	Hexachlorocyclopentadiene	0.342	0.342	0.0	90	0.00
45	TC	2,4,6-Trichlorophenol	0.421	0.419	0.5	92	0.00
46	T	2,4,5-Trichlorophenol	0.411	0.412	-0.2	91	0.00

47	S	2-Fluorobiphenyl	1.406	1.391	1.1	93	0.00
48	T	1,1'-Biphenyl	1.430	1.437	-0.5	93	0.00
49	T	2-Chloronaphthalene	1.139	1.140	-0.1	94	0.00
50	T	2-Nitroaniline	0.202	0.201	0.5	89	0.00
51	T	Dimethyl phthalate	1.251	1.240	0.9	94	0.00
52	T	2,6-Dinitrotoluene	0.234	0.240	-2.6	93	0.00
53	T	Acenaphthylene	1.743	1.772	-1.7	93	0.00
54	T	3-Nitroaniline	0.260	0.267	-2.7	94	0.00
55	MC	Acenaphthene	1.091	1.096	-0.5	94	0.00
56	TP	2,4-Dinitrophenol	0.097	0.078	19.6	87	0.00
57	MP	4-Nitrophenol	0.146	0.153	-4.8	92	0.00
58	M	2,4-Dinitrotoluene	0.310	0.336	-8.4	97	0.00
59	T	Dibenzofuran	1.682	1.733	-3.0	95	0.00
60	T	Diethyl phthalate	1.203	1.228	-2.1	95	0.00
61	T	Fluorene	1.372	1.365	0.5	92	0.00
62	T	4-Chlorophenyl phenyl ether	0.740	0.741	-0.1	95	0.00
63	T	4-Nitroaniline	0.280	0.287	-2.5	95	0.00
64		1,2,4,5-Tetrachlorobenzene	0.651	0.647	0.6	94	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.486	0.410	15.6	92	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	93	-0.01
67	T	4,6-Dinitro-2-methylphenol	0.117	0.106	9.4	92	0.00
68	TC	N-Nitrosodiphenylamine	0.598	0.603	-0.8	94	0.00
69	T	1,2-Diphenylhydrazine	0.659	0.663	-0.6	92	0.00
70	S	2,4,6-Tribromophenol	0.239	0.244	-2.1	94	0.00
71	T	4-Bromophenyl phenyl ether	0.297	0.299	-0.7	95	0.00
72	T	Hexachlorobenzene	0.368	0.363	1.4	91	0.00
73	T	Atrazine	0.229	0.218	4.8	96	0.00
74	MC	Pentachlorophenol	0.184	0.189	-2.7	91	0.00
75	T	Phenanthrene	1.121	1.123	-0.2	94	0.00
76	T	Anthracene	1.084	1.096	-1.1	92	-0.01
77	T	Carbazole	0.927	0.923	0.4	94	-0.01
78	T	Di-n-butyl phthalate	1.044	1.132	-8.4	94	-0.02
79	TC	Fluoranthene	1.122	1.127	-0.4	94	-0.03
80	T	Benzidine	0.485	0.425	12.4	92	-0.02
82	I	Chrysene-d12	1.000	1.000	0.0	99	-0.07
83	M	Pyrene	1.256	1.266	-0.8	96	-0.04
84	S	Terphenyl-d14	1.164	1.153	0.9	95	-0.04
85	T	3,3'-Dimethylbenzidine	0.626	0.576	8.0	90	-0.03
86	T	Butyl benzyl phthalate	0.449	0.455	-1.3	99	-0.05
87	T	3,3'-Dichlorobenzidine	0.373	0.410	-9.9	104	-0.07
88	T	Benzo[a]anthracene	1.095	1.096	-0.1	99	-0.07
89	T	Chrysene	0.996	1.028	-3.2	100	-0.07
90	T	Bis(2-ethylhexyl) phthalate	0.593	0.623	-5.1	96	-0.07
92	I	Perylene-d12	1.000	1.000	0.0	99	-0.09
93	TC	Di-n-octyl phthalate	1.208	1.226	-1.5	95	-0.08
94	T	Benzo[b]fluoranthene	1.512	1.474	2.5	99	-0.08
95	T	Benzo[k]fluoranthene	1.287	1.297	-0.8	98	-0.08
96	TC	Benzo[a]pyrene	1.265	1.236	2.3	97	-0.09
97	T	Indeno[1,2,3-cd]pyrene	1.710	1.766	-3.3	97	-0.10
98	T	Dibenz[a,h]anthracene	1.440	1.497	-4.0	97	-0.10
99	T	Benzo[g,h,i]perylene	1.434	1.495	-4.3	97	-0.10

(#) = Out of Range

BW0315.M Mon Mar 23 14:14:40 2015 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8686.D
Acq On : 7 Apr 2015 17:18
Operator : DANA
Sample : ABN004-15,CCV040BNA1,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 07 08:30:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Mar 24 09:35:56 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	81	0.00
2	T	N-Nitrosodimethylamine	0.631	0.688	-9.0	87	-0.01
3	T	Pyridine	0.701	0.724	-3.3	85	0.00
4	S	2-Fluorophenol	1.194	1.113	6.8	75	-0.01
5	T	Benzaldehyde	0.357	0.382	-7.0	79	-0.02
6	S	Phenol-d5	1.425	1.357	4.8	76	-0.01
7	MC	Phenol	1.665	1.492	10.4	72	-0.02
8	T	Aniline	0.504	0.475	5.8	73	-0.01
9	T	Bis(2-chloroethyl) ether	0.692	0.725	-4.8	89	0.00
10	M	2-Chlorophenol	1.428	1.366	4.3	77	-0.01
11	T	1,3-Dichlorobenzene	1.576	1.816	-15.2	92	-0.01
12	MC	1,4-Dichlorobenzene	1.648	1.878	-14.0	94	0.00
13	T	Benzyl alcohol	0.829	0.801	3.4	77	-0.01
14	T	1,2-Dichlorobenzene	1.489	1.740	-16.9	94	0.00
15	T	2-Methylphenol	1.128	1.084	3.9	80	-0.01
16	T	Bis(2-chloroisopropyl) ethe	1.135	1.167	-2.8	84	0.00
17	T	4-Methylphenol	1.144	1.147	-0.3	82	0.00
18	MP	N-Nitrosodi-n-propylamine	0.747	0.864	-15.7	93	0.00
19	T	Acetophenone	1.602	1.757	-9.7	91	0.00
20	T	3-Methylphenol	1.144	1.147	-0.3	82	0.00
21	T	Hexachloroethane	0.560	0.639	-14.1	97	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	83	0.00
24	S	Nitrobenzene-d5	0.312	0.338	-8.3	88	0.00
25	T	Nitrobenzene	0.304	0.346	-13.8	97	0.00
26	T	Isophorone	0.564	0.648	-14.9	95	0.00
27	TC	2-Nitrophenol	0.195	0.194	0.5	81	0.00
28	T	2,4-Dimethylphenol	0.334	0.337	-0.9	81	-0.01
29	T	Bis(2-chloroethoxy) methane	0.354	0.412	-16.4	96	0.00
30	T	Benzoic acid	0.148	0.172	-16.2	78	0.00
31	T	2,4-Dimethylaniline	0.379	0.443	-16.9	103	0.00
32	TC	2,4-Dichlorophenol	0.340	0.324	4.7	78	0.00
33	M	1,2,4-Trichlorobenzene	0.386	0.430	-11.4	94	0.00
34	T	Naphthalene	1.112	1.080	2.9	82	0.00
35	T	4-Chloroaniline	0.555	0.509	8.3	79	0.00
36	T	4-Aminotoluene	0.510	0.435	14.7	73	0.00
37	TC	Hexachlorobutadiene	0.252	0.285	-13.1	97	0.00
38	T	Caprolactam	0.091	0.103	-13.2	93	0.00
39	T	2-Aminotoluene	0.510	0.435	14.7	73	0.00
40	MC	4-Chloro-3-methylphenol	0.287	0.297	-3.5	88	0.00
41	T	2-Methylnaphthalene	0.721	0.684	5.1	80	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	83	0.00
44	TP	Hexachlorocyclopentadiene	0.342	0.350	-2.3	82	0.00
45	TC	2,4,6-Trichlorophenol	0.421	0.408	3.1	80	0.00
46	T	2,4,5-Trichlorophenol	0.411	0.414	-0.7	82	0.00

47	S	2-Fluorobiphenyl	1.406	1.270	9.7	76	0.00
48	T	1,1'-Biphenyl	1.430	1.579	-10.4	91	0.00
49	T	2-Chloronaphthalene	1.139	1.339	-17.6	99	0.00
50	T	2-Nitroaniline	0.202	0.210	-4.0	83	0.00
51	T	Dimethyl phthalate	1.251	1.388	-11.0	94	0.00
52	T	2,6-Dinitrotoluene	0.234	0.224	4.3	77	0.00
53	T	Acenaphthylene	1.743	1.819	-4.4	86	0.00
54	T	3-Nitroaniline	0.260	0.277	-6.5	87	0.00
55	MC	Acenaphthene	1.091	1.125	-3.1	86	0.00
56	TP	2,4-Dinitrophenol	0.097	0.094	3.1	94	0.00
57	MP	4-Nitrophenol	0.147	0.142	3.4	76	-0.01
58	M	2,4-Dinitrotoluene	0.310	0.342	-10.3	88	0.00
59	T	Dibenzofuran	1.682	1.645	2.2	81	-0.01
60	T	Diethyl phthalate	1.203	1.182	1.7	82	-0.01
61	T	Fluorene	1.372	1.410	-2.8	85	-0.01
62	T	4-Chlorophenyl phenyl ether	0.740	0.871	-17.7	99	-0.01
63	T	4-Nitroaniline	0.280	0.314	-12.1	92	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.651	0.619	4.9	80	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.486	0.550	-13.2	110	-0.01
66	I	Phenanthrene-d10	1.000	1.000	0.0	88	-0.02
67	T	4,6-Dinitro-2-methylphenol	0.117	0.124	-6.0	102	-0.01
68	TC	N-Nitrosodiphenylamine	0.598	0.684	-14.4	101	-0.02
69	T	1,2-Diphenylhydrazine	0.659	0.758	-15.0	100	-0.02
70	S	2,4,6-Tribromophenol	0.239	0.219	8.4	80	-0.02
71	T	4-Bromophenyl phenyl ether	0.297	0.351	-18.2	105	-0.02
72	T	Hexachlorobenzene	0.368	0.413	-12.2	98	-0.02
73	T	Atrazine	0.229	0.187	18.3	78	-0.02
74	MC	Pentachlorophenol	0.184	0.207	-12.5	94	-0.02
75	T	Phenanthrene	1.121	1.125	-0.4	89	-0.02
76	T	Anthracene	1.084	1.081	0.3	86	-0.02
77	T	Carbazole	0.927	1.010	-9.0	98	-0.02
78	T	Di-n-butyl phthalate	1.044	1.245	-19.3	98	-0.02
79	TC	Fluoranthene	1.122	1.187	-5.8	94	-0.03
80	T	Benzidine	0.485	0.564	-16.3	93	-0.04
82	I	Chrysene-d12	1.000	1.000	0.0	98	-0.07
83	M	Pyrene	1.256	1.247	0.7	94	-0.04
84	S	Terphenyl-d14	1.164	1.044	10.3	85	-0.04
85	T	3,3'-Dimethylbenzidine	0.626	0.586	6.4	84	-0.06
86	T	Butyl benzyl phthalate	0.449	0.505	-12.5	109	-0.05
87	T	3,3'-Dichlorobenzidine	0.373	0.343	8.0	86	-0.07
88	T	Benzo[a]anthracene	1.095	1.069	2.4	95	-0.07
89	T	Chrysene	0.996	0.979	1.7	95	-0.07
90	T	Bis(2-ethylhexyl) phthalate	0.593	0.696	-17.4	106	-0.08
92	I	Perylene-d12	1.000	1.000	0.0	72	-0.07
93	TC	Di-n-octyl phthalate	1.208	1.336	-10.6	75	-0.08
94	T	Benzo[b]fluoranthene	1.512	1.582	-4.6	77	-0.07
95	T	Benzo[k]fluoranthene	1.287	1.483	-15.2	82	-0.07
96	TC	Benzo[a]pyrene	1.266	1.469	-16.0	84	-0.07
97	T	Indeno[1,2,3-cd]pyrene	1.710	1.924	-12.5	77	-0.05
98	T	Dibenz[a,h]anthracene	1.440	1.648	-14.4	77	-0.06
99	T	Benzo[g,h,i]perylene	1.434	1.603	-11.8	75	-0.06

(#) = Out of Range

BW0315.M Wed Apr 08 09:51:39 2015 MSD_B

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BSIM0315.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Mar 23 14:03:46 2015
Response Via : Initial Calibration

Calibration Files
0.1 =B8183.D 0.2 =B8184.D 0.5 =B8182.D
1.0 =B8185.D 2.0 =B8186.D

		Compound	0.1	0.2	0.5	1.0	2.0	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
23)	I	Naphthalene-d8	----------ISTD----------						
43)	I	Acenaphthene-d10	----------ISTD----------						
66)	I	Phenanthrene-d10	----------ISTD----------						
72)	T	Hexachlorobenzene	0.357	0.322	0.400	0.310	0.317	0.341	11.05
74)	MC	Pentachlorophenol	0.036	0.039	0.040	0.039	0.041	0.039	4.83
82)	I	Chrysene-d12	----------ISTD----------						
88)	T	Benzo[a]anthracene	1.551	1.522	1.597	1.464	1.455	1.518	3.94
92)	I	Perylene-d12	----------ISTD----------						
94)	T	Benzo[b]fluoranthen	2.082	2.121	2.166	2.304	2.231	2.181	4.04
95)	T	Benzo[k]fluoranthen	2.309	2.306	2.149	2.331	2.147	2.248	4.10
96)	TC	Benzo[a]pyrene	1.987	1.977	1.900	1.976	1.968	1.962	1.80
97)	T	Indeno[1,2,3-cd]pyr	2.229	2.325	2.329	2.311	2.316	2.302	1.81
98)	T	Dibenz[a,h]anthrace	2.089	2.117	1.959	2.080	2.142	2.077	3.40

(#) = Out of Range

BSIM0315.M Mon Mar 23 14:04:59 2015 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\03-23-15\
Data File : B8189.D
Acq On : 23 Mar 2015 14:30
Operator : DANA
Sample : ABN030-15,ICV000.5SIM,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 23 15:04:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Mar 23 14:03:46 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	105	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	103	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	103	0.00
72	T	Hexachlorobenzene	0.341	0.379	-11.1	98	0.00
74	MC	Pentachlorophenol	0.039	0.038	2.6	98	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	101	-0.01
88	T	Benzo[a]anthracene	1.518	1.554	-2.4	99	-0.01
92	I	Perylene-d12	1.000	1.000	0.0	98	0.00
94	T	Benzo[b]fluoranthene	2.181	2.085	4.4	94	0.00
95	T	Benzo[k]fluoranthene	2.248	2.230	0.8	102	0.00
96	TC	Benzo[a]pyrene	1.962	1.886	3.9	97	-0.01
97	T	Indeno[1,2,3-cd]pyrene	2.302	2.255	2.0	95	-0.01
98	T	Dibenz[a,h]anthracene	2.077	1.911	8.0	96	0.00

(#) = Out of Range

BSIM0315.M Mon Mar 23 15:04:21 2015 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\04-07-15\
Data File : B8663.D
Acq On : 7 Apr 2015 11:11
Operator : DANA
Sample : ABN030-15,CCV000.5SIM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 07 11:54:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Mar 23 14:03:46 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	64	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	68	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	71	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	78	0.00
72	T	Hexachlorobenzene	0.341	0.384	-12.6	75	0.00
74	MC	Pentachlorophenol	0.039	0.036	7.7	69	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	93	0.00
88	T	Benzo[a]anthracene	1.518	1.525	-0.5	88	0.00
92	I	Perylene-d12	1.000	1.000	0.0	80	0.00
94	T	Benzo[b]fluoranthene	2.181	2.271	-4.1	84	0.00
95	T	Benzo[k]fluoranthene	2.248	2.321	-3.2	86	0.00
96	TC	Benzo[a]pyrene	1.962	1.949	0.7	82	0.00
97	T	Indeno[1,2,3-cd]pyrene	2.302	2.068	10.2	71	0.00
98	T	Dibenz[a,h]anthracene	2.077	1.779	14.3	73	0.00

(#) = Out of Range

BSIM0315.M Tue Apr 07 16:42:43 2015 MSD_B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8170.D Date Analyzed: 03/23/2015

Instrument ID: MSDB Time Analyzed: 09:12

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	297267		3.61		1092895		4.38		694816		5.41	
	UPPER LIMIT	594534		4.11		2185790		4.88		1389632		5.91	
	LOWER LIMIT	148634		3.11		546448		3.88		347408		4.91	
	LAB SAMPLE ID												
01	ICC001BNA1	296166		3.61		1124150		4.38		747370		5.41	
02	ICC010BNA1	291122		3.61		1089400		4.38		722499		5.41	
03	ICC020BNA1	296577		3.61		1090589		4.38		709189		5.41	
04	ICC080BNA1	294187		3.61		1071670		4.39		659929		5.41	
05	ICC160BNA1	271762		3.62		1010372		4.39		629863		5.41	
06	ICC160BNA2	314341		3.61		1191847		4.38		764312		5.41	
07	ICC080BNA2	294183		3.61		1100093		4.38		704211		5.41	
08	ICC040BNA2	286926		3.61		1114047		4.38		734340		5.41	
09	ICC020BNA2	288243		3.61		1102506		4.38		742782		5.41	
10	ICC010BNA2	286942		3.61		1109360		4.38		736791		5.41	
11	ICC001BNA2	291588		3.61		1115065		4.38		744569		5.41	
12	ICV040BNA1	272306		3.61		1020502		4.38		644479		5.41	
13	ICV040BNA2	288547		3.61		1079442		4.38		708756		5.41	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8170.D

Date Analyzed: 03/23/2015

Instrument ID: MSDB

Time Analyzed: 09:12

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	1125181		6.33		949203		7.96		685599		9.21	
	UPPER LIMIT	2250362		6.83		1898406		8.46		1371198		9.71	
	LOWER LIMIT	562591		5.83		474602		7.46		342800		8.71	
	LAB SAMPLE ID												
01	ICC001BNA1	1255323		6.33		1165557		7.93		748103		9.17	
02	ICC010BNA1	1237463		6.32		1107659		7.95		718990		9.21	
03	ICC020BNA1	1163737		6.33		1048163		7.92		687887		9.16	
04	ICC080BNA1	1012112		6.33		865578		7.92		663259		9.16	
05	ICC160BNA1	979638		6.33		904212		7.91		748454		9.16	
06	ICC160BNA2	1233535		6.33		1065711		7.91		556587		9.15	
07	ICC080BNA2	1197496		6.33		1032020		7.90		760363		9.14	
08	ICC040BNA2	1275017		6.32		1151698		7.93		795407		9.19	
09	ICC020BNA2	1272921		6.33		1130695		7.89		779102		9.13	
10	ICC010BNA2	1264003		6.33		1160743		7.90		813075		9.14	
11	ICC001BNA2	1245780		6.33		1123696		7.90		798107		9.13	
12	ICV040BNA1	1045919		6.32		936529		7.89		675755		9.12	
13	ICV040BNA2	1184935		6.32		1072335		7.89		763471		9.12	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8182.D

Date Analyzed: 03/23/2015

Instrument ID: MSDB

Time Analyzed: 12:36

	1 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	72305		2.20		188944		2.74		101379		3.54	
	UPPER LIMIT	144610		2.70		377888		3.24		202758		4.04	
	LOWER LIMIT	36153		1.70		94472		2.24		50690		3.04	
	LAB SAMPLE ID												
01	ICC000.1SIM	70903		2.20		192549		2.74		103622		3.53	
02	ICC000.2SIM	69200		2.20		186389		2.74		100986		3.53	
03	ICC0001SIM	68071		2.20		184052		2.74		100453		3.53	
04	ICC0002SIM	68701		2.20		188583		2.74		103828		3.53	
05	ICV000.5SIM	74131		2.20		197703		2.74		104318		3.53	
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8182.D

Date Analyzed: 03/23/2015

Instrument ID: MSDB

Time Analyzed: 12:36

	1 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	147303	4.27	97774	6.03	84767	7.30
	UPPER LIMIT	294606	4.77	195548	6.53	169534	7.80
	LOWER LIMIT	73652	3.77	48887	5.53	42384	6.80
	LAB SAMPLE ID						
01	ICC000.1SIM	151529	4.27	98482	6.01	82126	7.29
02	ICC000.2SIM	150653	4.27	98619	6.02	79660	7.30
03	ICC0001SIM	149773	4.27	105530	6.02	83417	7.29
04	ICC0002SIM	147003	4.26	108524	6.00	84545	7.28
05	ICV000.5SIM	151746	4.27	98997	6.02	83054	7.30
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8686.D

Date Analyzed: 04/07/2015

Instrument ID: MSDB

Time Analyzed: 17:18

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	240243		3.61		907760		4.38		575386		5.40	
	UPPER LIMIT	480486		4.11		1815520		4.88		1150772		5.90	
	LOWER LIMIT	120122		3.11		453880		3.88		287693		4.90	
	LAB SAMPLE ID												
01	CCV040BNA2	197871		3.61		769461		4.38		514922		5.40	
02	BLKA150406-04	220724		3.61		858572		4.38		599220		5.40	
03	LCSA150406-04	212540		3.61		812818		4.38		577945		5.40	
04	E15-02601-001MS	201308		3.61		657346		4.38		546676		5.40	
05	E15-02601-001MSD	171073		3.61		666432		4.38		463799		5.40	
06	E15-02601-001	233421		3.61		909905		4.38		640507		5.40	
07	E15-02601-002	232941		3.61		905371		4.38		648842		5.40	
08	E15-02601-003	213982		3.61		834783		4.38		589022		5.40	
09	E15-02601-004	223803		3.61		857631		4.38		569439		5.40	
10	E15-02601-005	275347		3.61		1064748		4.38		742424		5.40	
11	E15-02603-001	222744		3.61		853560		4.38		588587		5.40	
12	E15-02616-001	222000		3.61		865713		4.38		604142		5.40	
13	E15-02616-002	223676		3.61		874128		4.38		589926		5.40	
14	E15-02630-001	223539		3.61		901002		4.38		609812		5.40	
15	E15-02617-001	227227		3.61		881489		4.38		599403		5.40	
16	E15-02599-009	234932		3.61		908982		4.38		644867		5.40	
17	E15-02599-008	233644		3.61		914573		4.38		644604		5.40	
18	E15-02600-001	237927		3.61		943118		4.38		643970		5.40	
19	E15-02613-001	244685		3.61		941402		4.38		632861		5.40	
20	E15-02637-001	222956		3.61		874566		4.38		604476		5.40	
21	E15-02610-004	194746		3.61		741517		4.38		461793		5.40	
22	E15-02610-005	211825		3.61		804454		4.38		528137		5.40	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8686.D

Date Analyzed: 04/07/2015

Instrument ID: MSDB

Time Analyzed: 17:18

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	988360		6.31		927904		7.89		490840		9.14	
	UPPER LIMIT	1976720		6.81		1855808		8.39		981680		9.64	
	LOWER LIMIT	494180		5.81		463952		7.39		245420		8.64	
	LAB SAMPLE ID												
01	CCV040BNA2	896248		6.32		988292		7.86		760773		9.09	
02	BLKA150406-04	1118949		6.31		1116660		7.88		615112		9.13	
03	LCSA150406-04	1023724		6.32		936289		7.85		493099		9.08	
04	E15-02601-001MS	927602		6.31		794546		7.86		428853		9.11	
05	E15-02601-001MSD	810693		6.31		658534		7.88		366766		9.12	
06	E15-02601-001	1108386		6.32		944825		7.87		494344		9.10	
07	E15-02601-002	1116603		6.32		1008622		7.88		538753		9.11	
08	E15-02601-003	1017289		6.32		886594		7.88		475036		9.11	
09	E15-02601-004	946280		6.31		817819		7.89		471182		9.15	
10	E15-02601-005	1283043		6.32		1115373		7.87		591719		9.10	
11	E15-02603-001	1038093		6.32		892704		7.86		480591		9.10	
12	E15-02616-001	1087232		6.31		957860		7.88		487139		9.14	
13	E15-02616-002	1017000		6.31		871351		7.88		481900		9.13	
14	E15-02630-001	1113437		6.32		916893		7.85		466682		9.08	
15	E15-02617-001	1079912		6.31		926397		7.87		480959		9.12	
16	E15-02599-009	1137391		6.31		950331		7.86		516874		9.11	
17	E15-02599-008	1134676		6.31		946223		7.87		506704		9.12	
18	E15-02600-001	1152176		6.32		949538		7.86		486529		9.09	
19	E15-02613-001	1030494		6.32		823835		7.84		470212		9.07	
20	E15-02637-001	1034728		6.32		833065		7.84		452116		9.07	
21	E15-02610-004	672371		6.32		610499		7.93		445486		9.18	
22	E15-02610-005	814086		6.31		649917		7.87		447108		9.12	

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8686.D

Date Analyzed: 04/07/2015

Instrument ID: MSDB

Time Analyzed: 17:18

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	240243	3.61	907760	4.38	575386	5.40
	UPPER LIMIT	480486	4.11	1815520	4.88	1150772	5.90
	LOWER LIMIT	120122	3.11	453880	3.88	287693	4.90
	LAB SAMPLE ID						
01	E15-02610-006	217645	3.61	824344	4.38	544521	5.4
02	E15-02610-007	228336	3.61	840295	4.38	529251	5.4
03	E15-02610-008	243030	3.61	947409	4.38	588837	5.4
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8686.D Date Analyzed: 04/07/2015

Instrument ID: MSDB Time Analyzed: 17:18

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	988360	6.31	927904	7.89	490840	9.14
	UPPER LIMIT	1976720	6.81	1855808	8.39	981680	9.64
	LOWER LIMIT	494180	5.81	463952	7.39	245420	8.64
	LAB SAMPLE ID						
01	E15-02610-006	829312	6.32	670367	7.85	433994	9.08
02	E15-02610-007	788272	6.32	687980	7.86	478159	9.09
03	E15-02610-008	883324	6.32	753266	7.84	516940	9.07
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8663.D

Date Analyzed: 04/07/2015

Instrument ID: MSDB

Time Analyzed: 11:11

	1 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	46284		2.19		128945		2.73		72039		3.54	
	UPPER LIMIT	92568		2.69		257890		3.23		144078		4.04	
	LOWER LIMIT	23142		1.69		64473		2.23		36020		3.04	
	LAB SAMPLE ID												
01	BLKA150406-04	41205		2.19		114622		2.73		66747		3.53	
02	E15-02601-001	40217		2.19		111072		2.73		64638		3.52	
03	E15-02601-002	43613		2.19		123020		2.73		76728		3.52	
04	E15-02601-003	39258		2.19		109682		2.73		64159		3.52	
05	E15-02601-004	43665		2.19		131752		2.73		106111		3.53	
06	E15-02601-005	43702		2.19		122862		2.73		71388		3.52	
07	E15-02603-001	41677		2.19		115746		2.73		67658		3.52	
08	E15-02616-001	37762		2.19		104453		2.73		60824		3.52	
09	E15-02616-002	36917		2.19		103996		2.73		59298		3.52	
10	E15-02630-001	41450		2.19		115578		2.73		67763		3.52	
11	E15-02617-001	40576		2.19		113484		2.73		65504		3.52	
12	E15-02599-009	41511		2.19		115577		2.73		66290		3.53	
13	E15-02599-008	39822		2.20		115897		2.74		64979		3.53	
14	E15-02600-001	42423		2.19		120011		2.73		68760		3.52	
15	E15-02613-001	41776		2.19		117026		2.73		73878		3.52	
16	E15-02637-001	38151		2.19		106458		2.73		62046		3.52	
17	E15-02610-004	34114		2.19		110427		2.73		49307		3.52	
18	E15-02610-005	34507		2.19		94695		2.73		50975		3.52	
19	E15-02610-006	33112		2.19		94920		2.73		51736		3.52	
20	E15-02610-007	38397		2.19		103672		2.73		62892		3.52	
21	E15-02610-008	39144		2.19		108780		2.73		59092		3.52	
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8663.D

Date Analyzed: 04/07/2015

Instrument ID: MSDB

Time Analyzed: 11:11

	1 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	114932		4.27		90557		6.03		67881		7.31	
	UPPER LIMIT	229864		4.77		181114		6.53		135762		7.81	
	LOWER LIMIT	57466		3.77		45279		5.53		33941		6.81	
	LAB SAMPLE ID												
01	BLKA150406-04	109267		4.26		78981		6.00		71310		7.28	
02	E15-02601-001	101891		4.25		67466		5.99		64659		7.26	
03	E15-02601-002	111390		4.24		76928		5.98		72491		7.25	
04	E15-02601-003	102275		4.24		69176		5.97		63683		7.25	
05	E15-02601-004	99598		4.26		75615		5.99		72445		7.26	
06	E15-02601-005	113989		4.23		78993		5.97		71116		7.25	
07	E15-02603-001	101564		4.25		68070		5.99		64812		7.26	
08	E15-02616-001	95483		4.25		64230		5.99		59703		7.26	
09	E15-02616-002	94935		4.25		64093		5.99		61213		7.27	
10	E15-02630-001	106542		4.25		72787		5.99		68255		7.27	
11	E15-02617-001	101993		4.25		68350		5.99		63105		7.27	
12	E15-02599-009	99915		4.26		69862		6.02		67983		7.28	
13	E15-02599-008	99836		4.26		71963		6.01		68496		7.28	
14	E15-02600-001	106123		4.24		73996		5.98		70867		7.25	
15	E15-02613-001	103182		4.25		68427		5.99		67035		7.26	
16	E15-02637-001	93685		4.24		62880		5.98		62140		7.26	
17	E15-02610-004	66402		4.23		79118		5.98		90210		7.27	
18	E15-02610-005	67818		4.23		51518		5.98		78433		7.24	
19	E15-02610-006	72765		4.24		56759		5.97		84029		7.25	
20	E15-02610-007	80530		4.25		60795		5.99		97669		7.26	
21	E15-02610-008	80915		4.24		61757		5.97		88193		7.25	
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8706.D
Acq On : 7 Apr 2015 23:00
Operator : DANA
Sample : M-1R(11-,E15-02637-001,A,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Apr 08 09:26:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Mar 24 09:35:56 2015
Response via : Initial Calibration

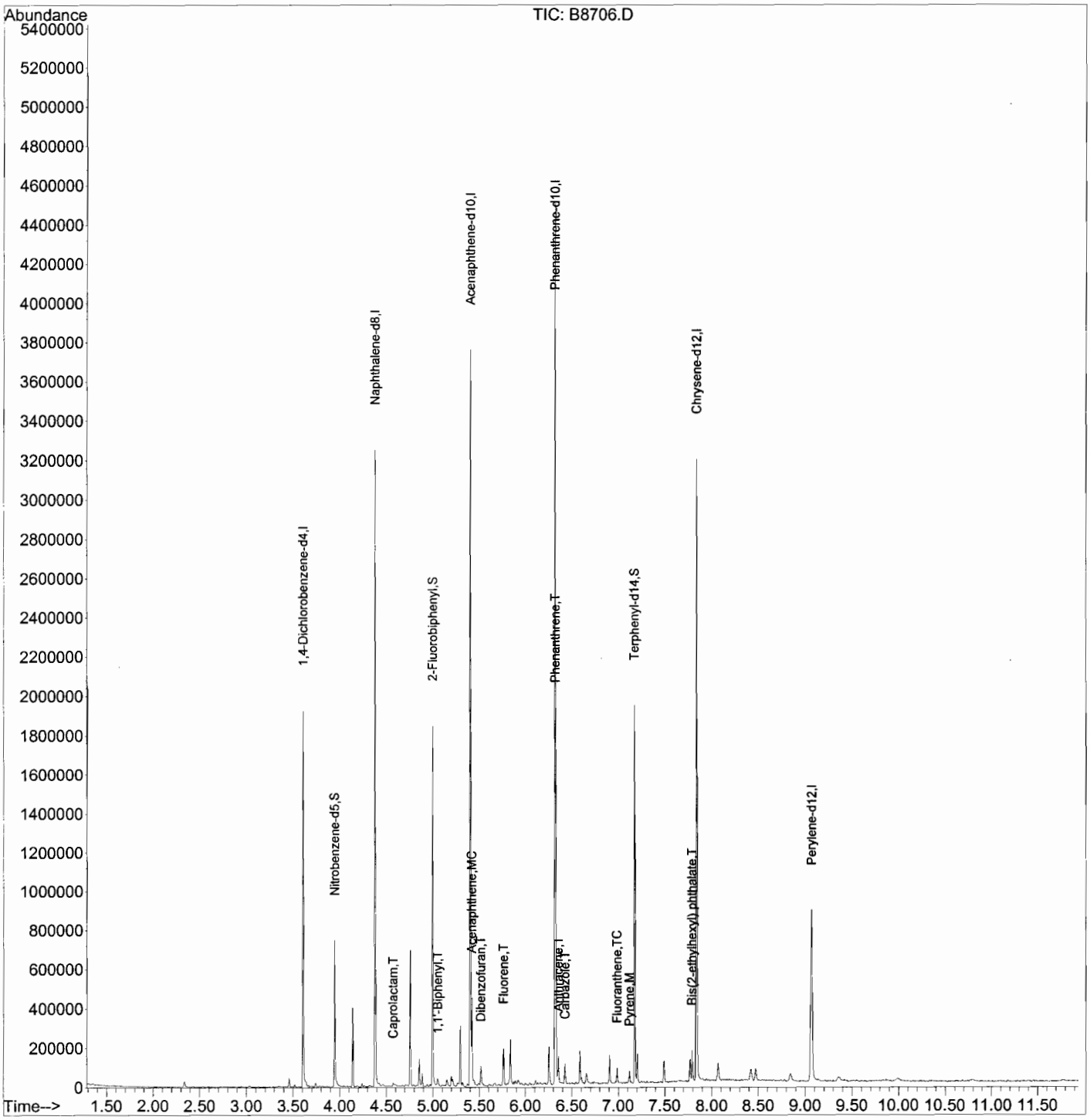
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.61	152	222956	40.00	UG	0.00
23) Naphthalene-d8	4.38	136	874566	40.00	UG	0.00
43) Acenaphthene-d10	5.40	164	604476	40.00	UG	0.00
66) Phenanthrene-d10	6.32	188	1034728	40.00	UG	-0.02
82) Chrysene-d12	7.84	240	833065	40.00	UG	-0.12
92) Perylene-d12	9.07	264	452116	40.00	UG	-0.14
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.95	82	143755	21.10	UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 42.20%			
47) 2-Fluorobiphenyl	5.00	172	393780	18.54	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 37.08%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	7.17	244	537112	22.16	UG	-0.07
Spiked Amount 50.000	Range 23 - 124		Recovery = 44.32%			
Target Compounds						Qvalue
38) Caprolactam	4.57	55	3029m	1.53	UG	
48) 1,1'-Biphenyl	5.05	154	7515	0.35	UG	100
55) Acenaphthene	5.42	153	65847	3.99	UG	90
59) Dibenzofuran	5.52	168	32611	1.28	UG	94
61) Fluorene	5.76	166	51213	2.47	UG	99
75) Phenanthrene	6.33	178	128817	4.44	UG	100
76) Anthracene	6.35	178	34381	1.23	UG	96
77) Carbazole	6.42	167	30533	1.27	UG	96
79) Fluoranthene	6.99	202	22719	0.78	UG	99
83) Pyrene	7.12	202	16904	0.65	UG	96
90) Bis(2-ethylhexyl) phthalat	7.79	149	31567	2.56	UG	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8706.D
Acq On : 7 Apr 2015 23:00
Operator : DANA
Sample : M-1R(11-,E15-02637-001,A,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Apr 08 09:26:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Mar 24 09:35:56 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8706.D
Acq On : 7 Apr 2015 23:00
Operator : DANA
Sample : M-1R(11-,E15-02637-001,A,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 44 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW0315.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.609	433	436	445	rBV	1924683	1262708	46.62%	7.530%
2	3.946	496	499	502	rBV	746105	419828	15.50%	2.504%
3	4.138	532	535	538	rBV	404232	250135	9.24%	1.492%
4	4.378	577	580	583	rBV	3248060	1687371	62.30%	10.062%
5	4.758	648	651	654	rBV2	689575	394944	14.58%	2.355%
6	4.854	666	669	672	rBV	136092	84849	3.13%	0.506%
7	4.998	693	696	704	rBV	1842010	1049819	38.76%	6.260%
8	5.297	749	752	754	rVB	305631	205991	7.61%	1.228%
9	5.404	769	772	774	rBV	3755598	2318494	85.60%	13.826%
10	5.420	774	775	777	rVB	422952	158392	5.85%	0.945%
11	5.516	791	793	797	rBV	96328	70696	2.61%	0.422%
12	5.762	836	839	844	rBV	186355	153580	5.67%	0.916%
13	5.837	847	853	858	rVB	227360	191984	7.09%	1.145%
14	6.253	928	931	938	rVB3	194563	159672	5.90%	0.952%
15	6.318	940	943	947	rBV	4503025	2708542	100.00%	16.152%
16	6.355	947	950	953	rVB	133744	91497	3.38%	0.546%
17	6.424	960	963	967	rBV	101731	75682	2.79%	0.451%
18	6.585	991	993	995	rBV2	167094	105328	3.89%	0.628%
19	6.654	1002	1006	1016	rBV3	54070	68855	2.54%	0.411%
20	6.905	1050	1053	1056	rBV	139459	80961	2.99%	0.483%
21	6.985	1066	1068	1072	rVB	75350	45387	1.68%	0.271%
22	7.119	1088	1093	1098	rBV	61979	49186	1.82%	0.293%
23	7.172	1100	1103	1106	rBV	1937189	1301631	48.06%	7.762%
24	7.204	1106	1109	1114	rVB	146932	103305	3.81%	0.616%
25	7.493	1159	1163	1166	rBV	111547	99001	3.66%	0.590%
26	7.771	1212	1215	1217	rBV	114722	95544	3.53%	0.570%
27	7.792	1217	1219	1224	rVB	152706	96885	3.58%	0.578%
28	7.840	1224	1228	1231	rBV	3172381	1978846	73.06%	11.800%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8706.D
Acq On : 7 Apr 2015 23:00
Operator : DANA
Sample : M-1R(11-,E15-02637-001,A,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 44 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW0315.M
Title : BNA CALIBRATION METHOD

29	8.070	1267	1271	1277	rVB	90052	100270	3.70%	0.598%
30	8.422	1332	1337	1342	rVB4	60437	82534	3.05%	0.492%
31	8.470	1342	1346	1351	rBV2	59918	68619	2.53%	0.409%
32	8.844	1411	1416	1423	rBV5	35497	52126	1.92%	0.311%
33	9.069	1452	1458	1468	rBV	873745	1100161	40.62%	6.561%
34	9.357	1506	1512	1522	rBV	21533	56565	2.09%	0.337%

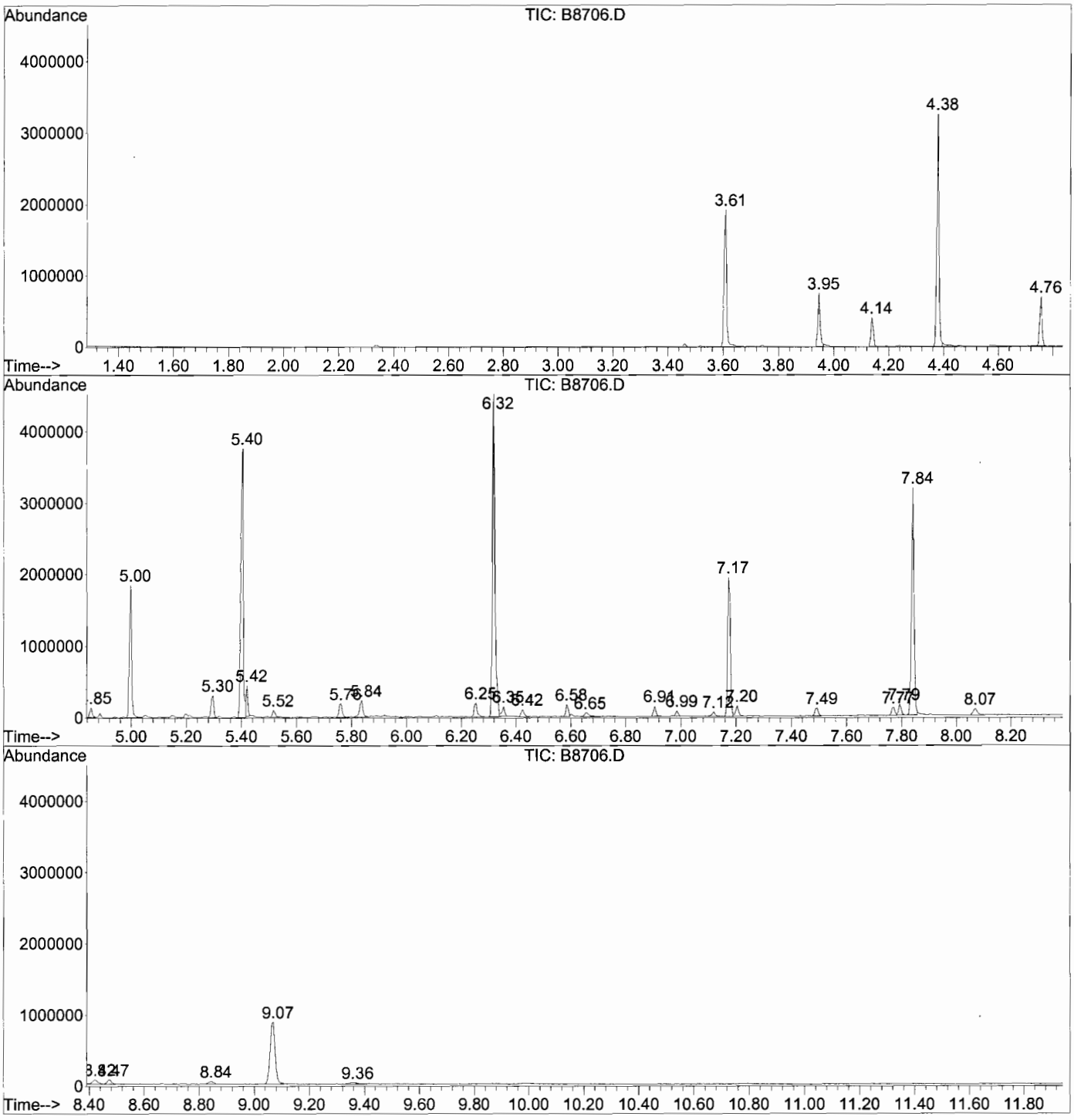
Sum of corrected areas: 16769388

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8706.D
Acq On : 7 Apr 2015 23:00
Operator : DANA
Sample : M-1R(11-,E15-02637-001,A,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8706.D
Acq On : 7 Apr 2015 23:00
Operator : DANA
Sample : M-1R(11-,E15-02637-001,A,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD

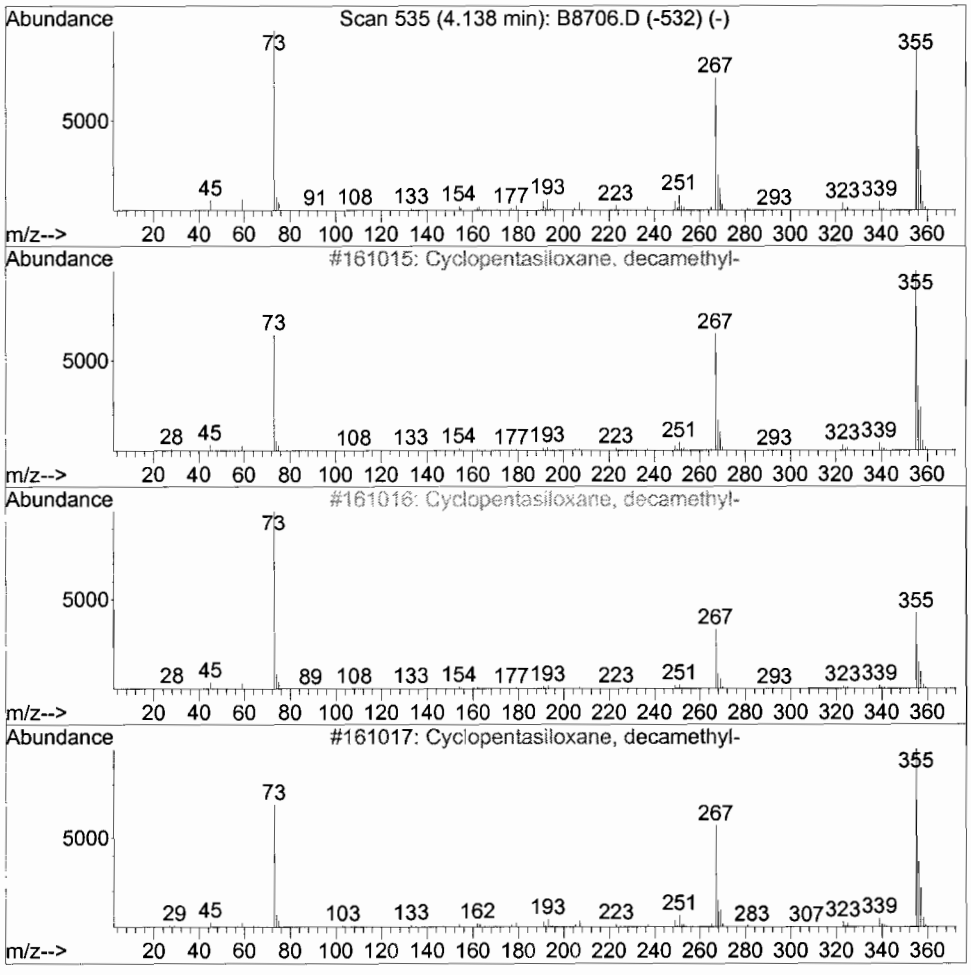
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

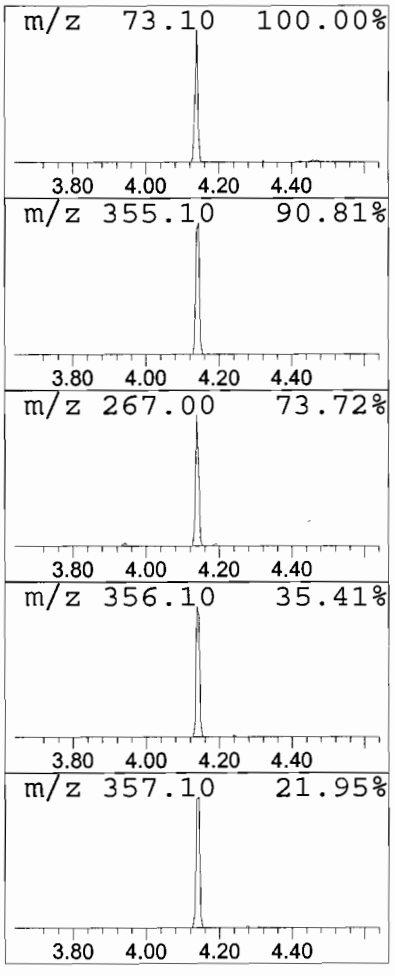
****

Peak Number 1 Cyclopentasiloxane, decamet... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.14	5.93 UG	250135	Naphthalene-d8	4.38

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentasiloxane, decamethyl-	370	C10H30O5Si5	000541-02-6	91
2	Cyclopentasiloxane, decamethyl-	370	C10H30O5Si5	000541-02-6	87
3	Cyclopentasiloxane, decamethyl-	370	C10H30O5Si5	000541-02-6	47
4	Benzaldehyde, 2,4-bis(trimethyls...	282	C13H22O3Si2	033617-38-8	38
5	Butanamide, 2,2,3,3,4,4,4-heptaf...	493	C18H26F7NO3Si2	055471-01-7	38





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8706.D
Acq On : 7 Apr 2015 23:00
Operator : DANA
Sample : M-1R(11-,E15-02637-001,A,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD

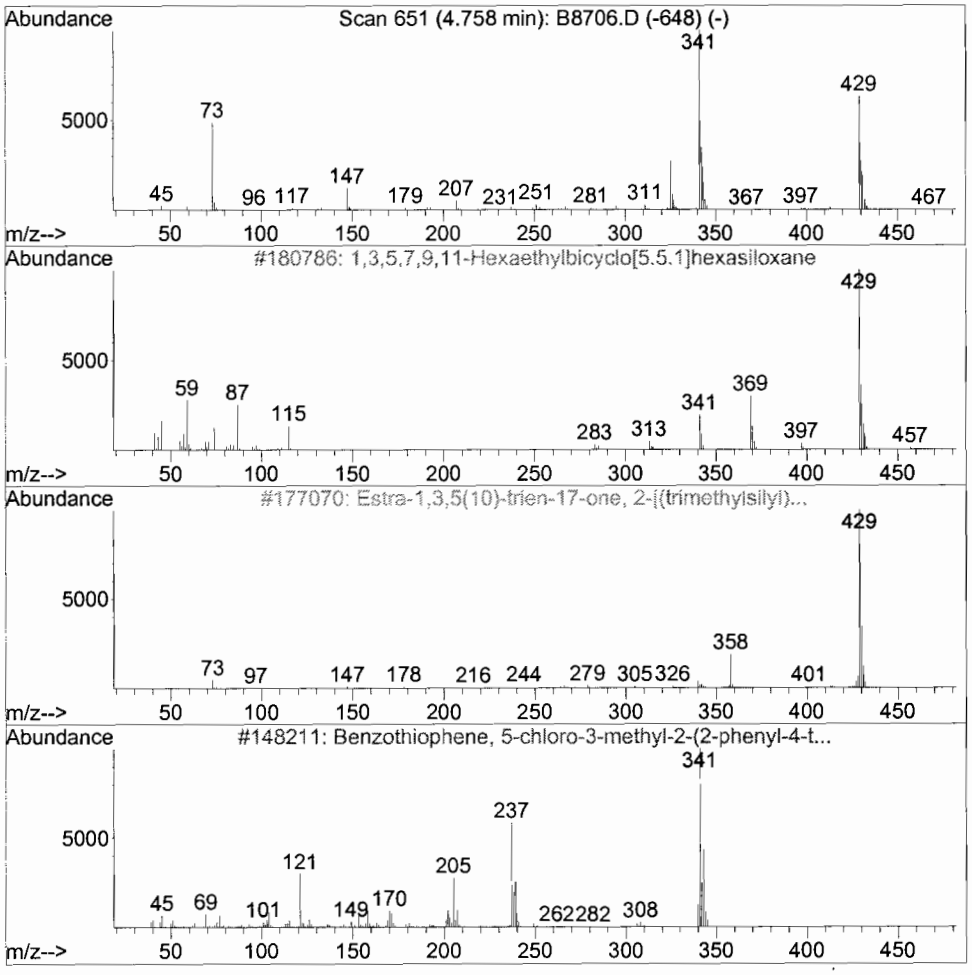
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

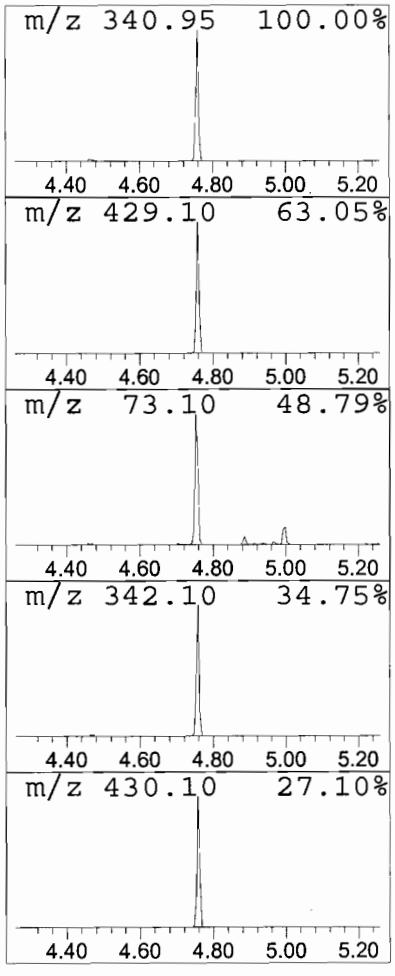
****

Peak Number 2 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.76	9.36 UG	394944	Naphthalene-d8	4.38

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,5,7,9,11-Hexaethylbicyclo[5....	458	C12H34O7Si6	073113-17-4	38
2	Estra-1,3,5(10)-trien-17-one, 2-...	429	C24H39NO2Si2	077883-26-2	14
3	Benzothiophene, 5-chloro-3-methy...	341	C18H12ClNS2	1000270-14-7	10
4	Fluoren-9-ol, 3,6-dimethoxy-9-(2...	342	C23H18O3	1000217-31-2	10
5	3-(6-Methyl-3-pyridyl)-1,5-di(p-...	341	C23H23N3	010040-66-1	9





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8679.D
Acq On : 7 Apr 2015 15:25
Operator : DANA
Sample : M-1R(11-,E15-02637-001,Ia,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 07 15:51:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Mar 23 14:03:46 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.19	152	38151	1.00	UG	0.00
23) Naphthalene-d8	2.73	136	106458	1.00	UG	0.00
43) Acenaphthene-d10	3.52	164	62046	1.00	UG	-0.01
66) Phenanthrene-d10	4.24	188	93685	1.00	UG	-0.03
82) Chrysene-d12	5.98	240	62880	1.00	UG	-0.05
92) Perylene-d12	7.26	264	62140	1.00	UG	-0.05

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

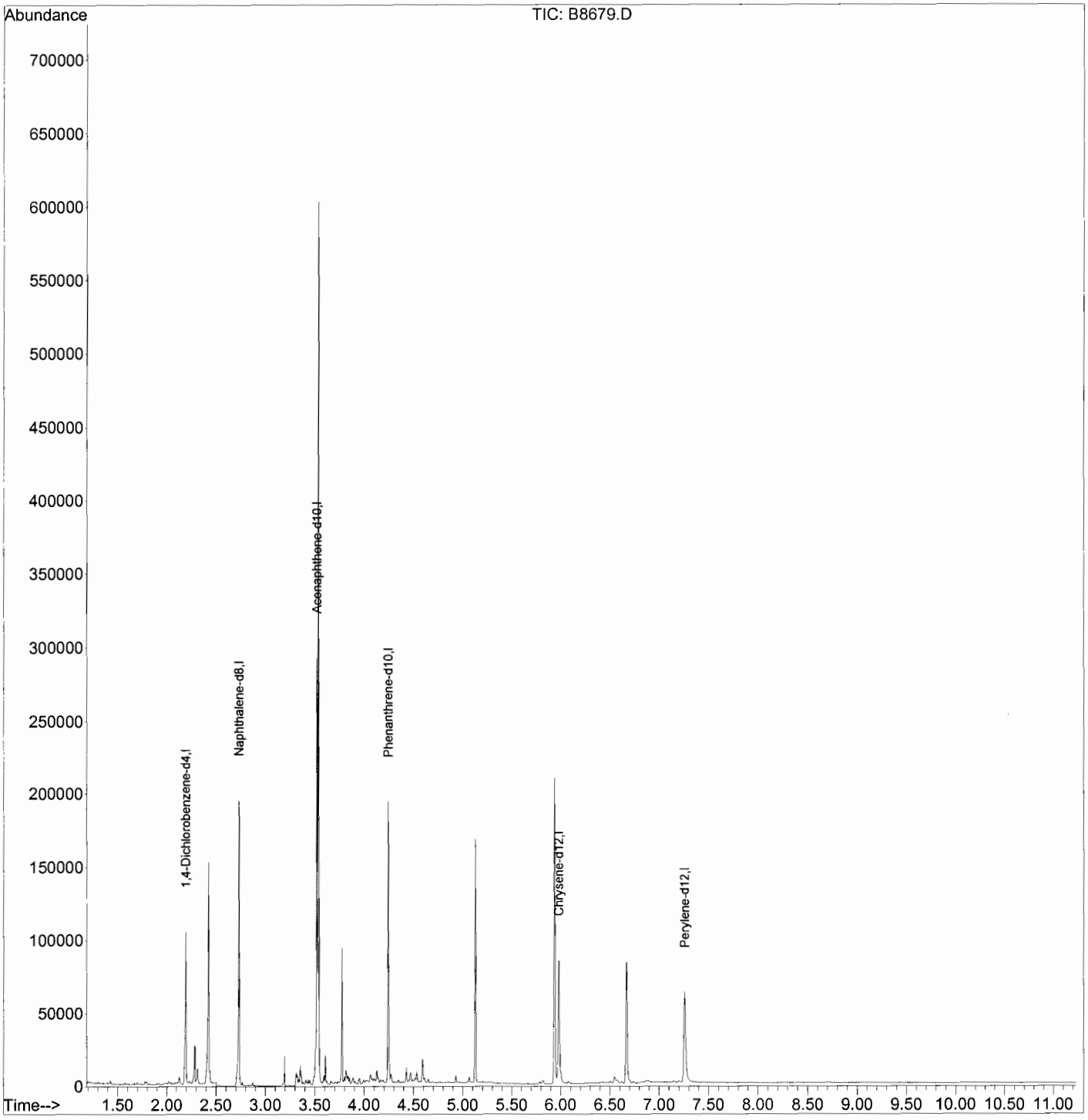
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8679.D
Acq On : 7 Apr 2015 15:25
Operator : DANA
Sample : M-1R(11-,E15-02637-001,Ia,1000ml,100,1
Misc : 150406-04,04/06/15,04/03/15,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 07 15:51:20 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Mar 23 14:03:46 2015
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA150406-04
Client ID: .
Date Received: NA
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
Data file: B8688.D
SIM Data file: B8664.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.185
Pyridine	ND		1.00	0.154
Benzaldehyde	ND		1.00	0.237
Phenol	ND		1.00	0.113
Aniline	ND		1.00	0.200
Bis(2-chloroethyl) ether	ND		1.00	0.131
2-Chlorophenol	ND		1.00	0.144
1,3-Dichlorobenzene	ND		1.00	0.112
1,4-Dichlorobenzene	ND		1.00	0.133
Benzyl alcohol	ND		1.00	0.128
1,2-Dichlorobenzene	ND		1.00	0.153
2-Methylphenol	ND		1.00	0.294
Bis(2-chloroisopropyl) ether	ND		1.00	0.127
4-Methylphenol **	ND		1.00	0.203
N-Nitrosodi-n-propylamine	ND		1.00	0.186
Acetophenone	ND		1.00	0.144
3-Methylphenol	ND		1.00	0.203
Hexachloroethane	ND		1.00	0.150
Nitrobenzene	ND		1.00	0.124
Isophorone	ND		1.00	0.127
2-Nitrophenol	ND		1.00	0.205
2,4-Dimethylphenol	ND		1.00	0.144
Bis(2-chloroethoxy) methane	ND		1.00	0.113
Benzoic acid	ND		1.00	0.184
2,4-Dimethylaniline	ND		1.00	0.221
2,4-Dichlorophenol	ND		1.00	0.136
1,2,4-Trichlorobenzene	ND		1.00	0.221
Naphthalene	ND		1.00	0.123
4-Chloroaniline	ND		1.00	0.135
4-Aminotoluene	ND		1.00	0.158
Hexachlorobutadiene	ND		1.00	0.167
Caprolactam	ND		1.00	0.232
2-Aminotoluene	ND		1.00	0.158
4-Chloro-3-methylphenol	ND		1.00	0.162
2-Methylnaphthalene	ND		1.00	0.112
Hexachlorocyclopentadiene	ND		1.00	0.158
2,4,6-Trichlorophenol	ND		1.00	0.118
2,4,5-Trichlorophenol	ND		1.00	0.306
1,1'-Biphenyl	ND		1.00	0.105
2-Chloronaphthalene	ND		1.00	0.256
2-Nitroaniline	ND		1.00	0.202
Dimethyl phthalate	ND		1.00	0.131

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA150406-04
Client ID: .
Date Received: NA
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
Data file: B8688.D
SIM Data file: B8664.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.207
Acenaphthylene	ND		1.00	0.107
3-Nitroaniline	ND		1.00	0.156
Acenaphthene	ND		1.00	0.122
2,4-Dinitrophenol	ND		1.00	0.413
4-Nitrophenol	ND		1.00	0.157
2,4-Dinitrotoluene	ND		1.00	0.164
Dibenzofuran	ND		1.00	0.123
Diethyl phthalate	ND		1.00	0.127
Fluorene	ND		1.00	0.176
4-Chlorophenyl phenyl ether	ND		1.00	0.133
4-Nitroaniline	ND		1.00	0.193
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.222
2,3,4,6-Tetrachlorophenol	ND		1.00	0.231
4,6-Dinitro-2-methylphenol	ND		1.00	0.194
N-Nitrosodiphenylamine	ND		1.00	0.117
1,2-Diphenylhydrazine	ND		1.00	0.106
4-Bromophenyl phenyl ether	ND		1.00	0.182
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.259
Pentachlorophenol *	ND		0.100	0.100
Phenanthrene	ND		1.00	0.111
Anthracene	ND		1.00	0.155
Carbazole	ND		1.00	0.119
Di-n-butyl phthalate	ND		1.00	0.177
Fluoranthene	ND		1.00	0.118
Benzidine	ND		1.00	0.192
Pyrene	ND		1.00	0.142
3,3'-Dimethylbenzidine	ND		1.00	0.254
Butyl benzyl phthalate	ND		1.00	0.245
3,3'-Dichlorobenzidine	ND		1.00	0.197
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.149
Bis(2-ethylhexyl) phthalate	ND		1.00	0.429
Di-n-octyl phthalate	ND		1.00	0.175
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.183

Total Target Compounds (83): 0

* - RL & MDL from SIM run
** - represents the total of 3+4-Methylphenol
B --- Compound detected in Blank
C --- Common laboratory contamination
D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA150406-04
Client ID: .
Date Received: NA
Date Extracted: 04/06/2015
Date Analyzed: 04/07/2015
Data file: B8688.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time

No peaks detected

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8688.D
Acq On : 7 Apr 2015 17:52
Operator : DANA
Sample : .,BLKA150406-04,A,1000ml,100,1
Misc : 150406-04,04/06/15,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 08 08:48:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Mar 24 09:35:56 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.61	152	220724	40.00	UG	0.00
23) Naphthalene-d8	4.38	136	858572	40.00	UG	0.00
43) Acenaphthene-d10	5.40	164	599220	40.00	UG	0.00
66) Phenanthrene-d10	6.31	188	1118949	40.00	UG	-0.02
82) Chrysene-d12	7.88	240	1116660	40.00	UG	-0.08
92) Perylene-d12	9.13	264	615112	40.00	UG	-0.07
System Monitoring Compounds						
4) 2-Fluorophenol	2.78	112	143985m	21.86	UG	-0.02
Spiked Amount 100.000	Range 10 - 100		Recovery = 21.86%			
6) Phenol-d5	3.37	99	110526	14.05	UG	-0.02
Spiked Amount 100.000	Range 10 - 102		Recovery = 14.05%			
24) Nitrobenzene-d5	3.95	82	203117	30.37	UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 60.74%			
47) 2-Fluorobiphenyl	5.00	172	584380	27.75	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 55.50%			
70) 2,4,6-Tribromophenol	5.92	330	340844	51.05	UG	-0.02
Spiked Amount 100.000	Range 22 - 115		Recovery = 51.05%			
84) Terphenyl-d14	7.20	244	1015858	31.27	UG	-0.04
Spiked Amount 50.000	Range 23 - 124		Recovery = 62.54%			

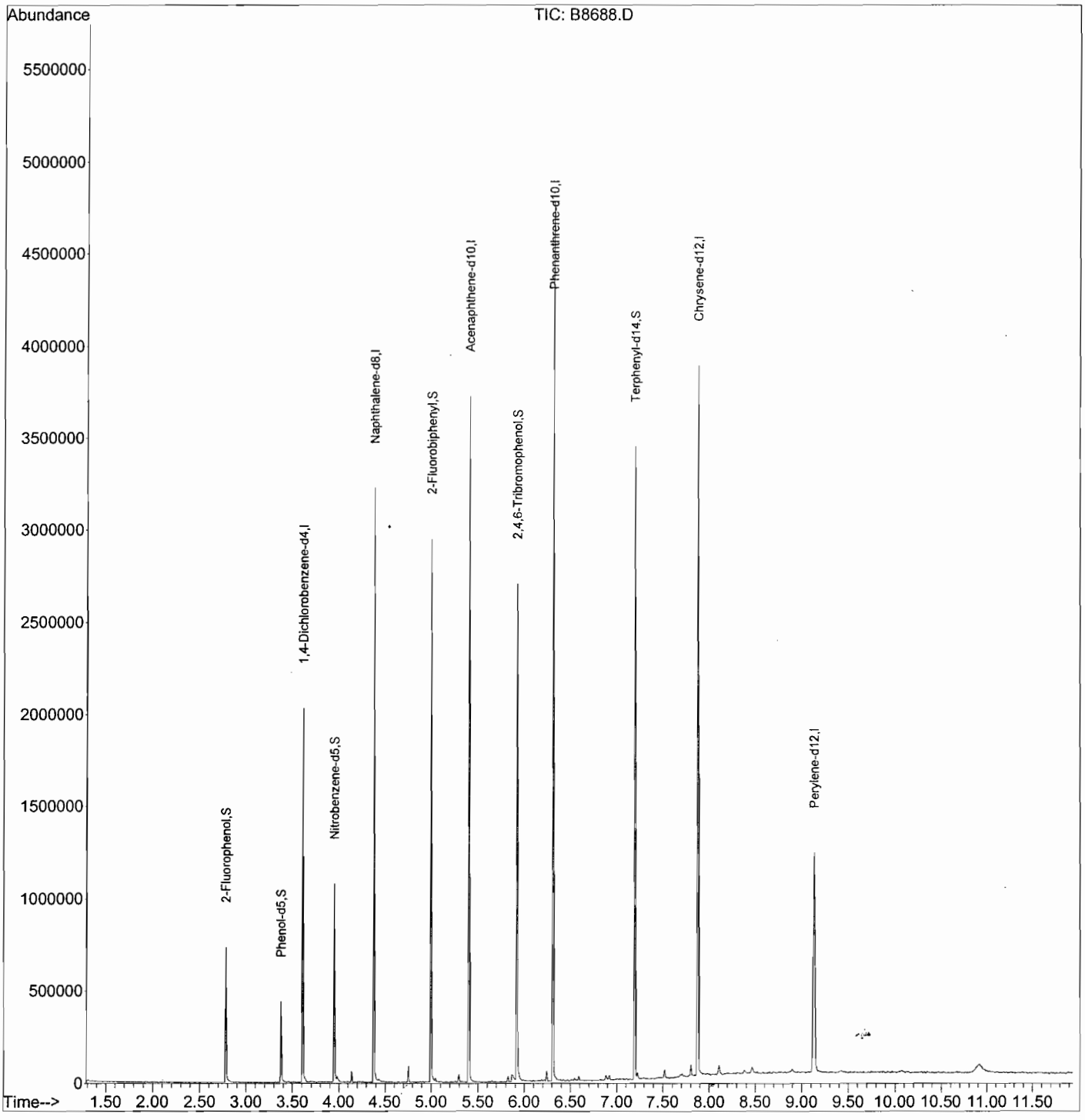
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8688.D
Acq On : 7 Apr 2015 17:52
Operator : DANA
Sample : .,BLKA150406-04,A,1000ml,100,1
Misc : 150406-04,04/06/15,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 08 08:48:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Mar 24 09:35:56 2015
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\04-07-15\
Data File : B8688.D
Acq On : 7 Apr 2015 17:52
Operator : DANA
Sample : .,BLKA150406-04,A,1000ml,100,1
Misc : 150406-04,04/06/15,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0315.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BW0315.M Wed Apr 08 09:52:49 2015 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\04-07-15\
Data File : B8664.D
Acq On : 7 Apr 2015 11:27
Operator : DANA
Sample : .,BLKA150406-04,Ia,1000ml,100,1
Misc : 150406-04,04/06/15,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 07 11:54:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Mar 23 14:03:46 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.19	152	41205	1.00	UG	0.00
23) Naphthalene-d8	2.73	136	114622	1.00	UG	0.00
43) Acenaphthene-d10	3.53	164	66747	1.00	UG	0.00
66) Phenanthrene-d10	4.26	188	109267m	1.00	UG	-0.01
82) Chrysene-d12	6.00	240	78981	1.00	UG	-0.03
92) Perylene-d12	7.28	264	71310	1.00	UG	-0.02

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

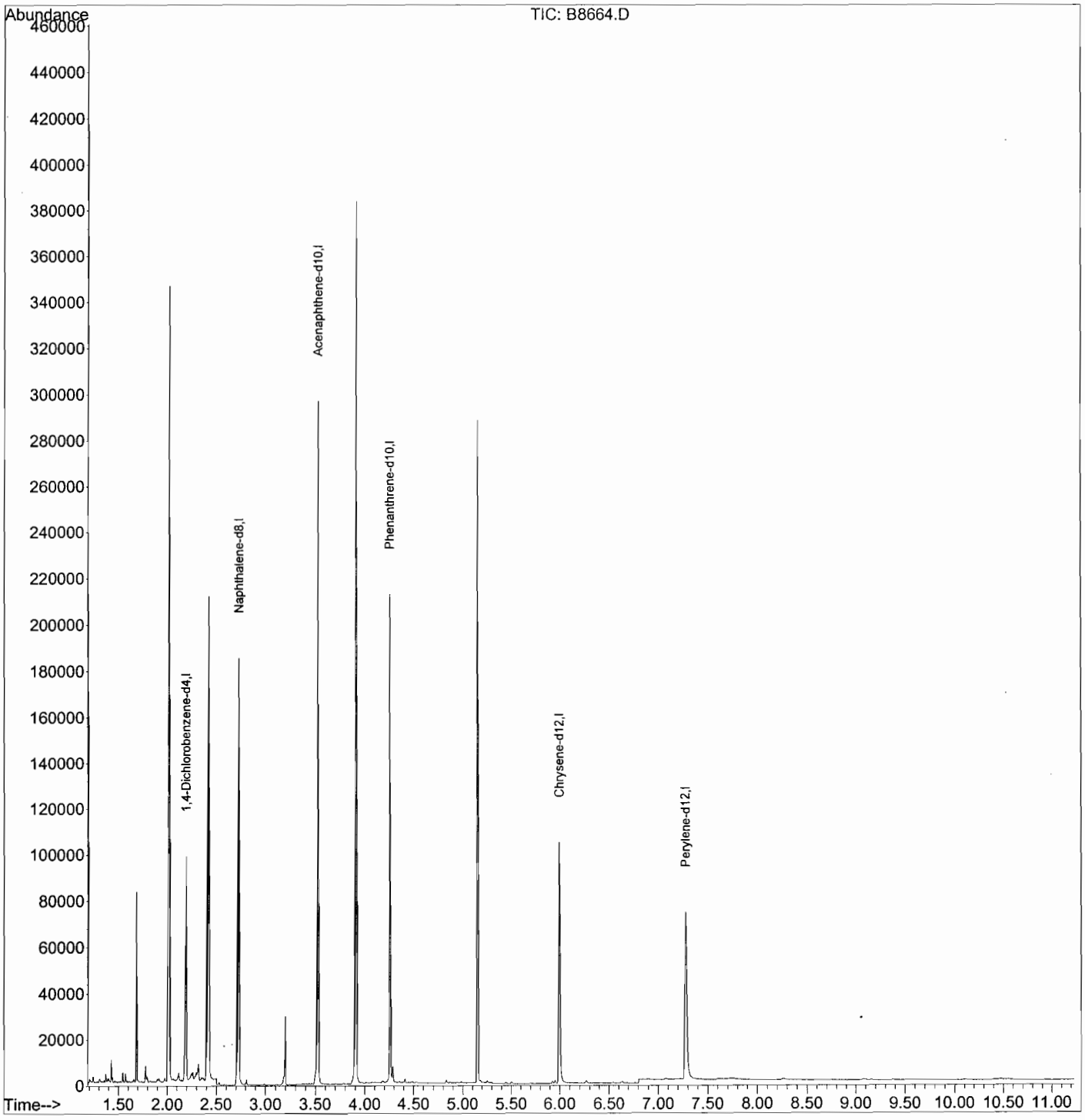
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\04-07-15\
Data File : B8664.D
Acq On : 7 Apr 2015 11:27
Operator : DANA
Sample : .,BLKA150406-04,Ia,1000ml,100,1
Misc : 150406-04,04/06/15,NA,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 07 11:54:53 2015
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0315.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Mar 23 14:03:46 2015
Response via : Initial Calibration



SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Integrated Analytical Laboratories LLC

CUSTOMER INFO		REPORTING INFO	
Company:	EWMA	REPORT TO:	
Address:	100 Misty Lane	Address:	Same
Telephone #:		Attn:	—
Fax #:		FAX #	
Project Manager:	mindy.chaturgan	INVOICE TO:	
EMAIL Address:		Address:	
Sampler:	Travis B.		
Project Name:	50 Divison		
Project Location (State):	NJ	Attn:	
Bottle Order #:		PO #	
Quote # :			

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE
NJ EPH DRO (5 day TAT) NJ EPH Fractionated (5 day TAT)
NJ EPH - C40 (5 day TAT)
DRO-8015 (3-5 day TAT) QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified
24 hr** 48 hr** 72 hr** 96 hr** 1 wk**
Other** (specify): ______

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **: 24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only / Reduced / Regulatory - 15% Surcharge applies / Other (describe)

EDDs: NJ SRP format (circled) / NYSDEC / lab approved custom EDD / NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix: DW - Drinking Water AQ - Aqueous WW - Waste Water; OI - Oil LIQ - Liquid (Specify) OT - Other (Specify); S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS / # BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	TCL VO+15	TCL SVOC+TICs								HCL	HNO3	MeOH	NaOH	H2SO4	Other	None	Encore
MW-1R(11-30)		4/2	0827	GW	5	1	/	/								3						2	

Known Hazard: Yes or No Describe: | Conc. Expected: Low (Med, circled) High | MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): ____ IAL Courier ____ Client Courier ____ FedEx/UPS

	Signature/Company	Date	Time		Signature/Company	Date	Time
Relinquished by:	Mindy Chaturgan	4/2	12:00	Received by:	~~EWMA Cold Storage~~	~~4/2~~	~~12:00~~
Relinquished by:	[signature]	4/3/15	1645	Received by:	[signature]	4/3/15	1510
Relinquished by:				Received by:	[signature]	4/3/15	1645
Relinquished by:				Received by:			
Relinquished by:				Received by:			

Comments:

Lab Case # 2637

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

I:\2012 REV COC 01/2012 rev

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

E15-02637: 50 DIVISION

To: Mindy Chaturgan
EWMA - HQ
Fax: 1(973) 560-0400
EMail: mindy.chaturgan@ewma.com

Report To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Mindy Chaturgan

Bill To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Mindy Chaturgan

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced		Apr 03, 2015 @ 16:45	NA	Apr 17, 2015	Apr 24, 2015 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

**** QC Requirement (must meet):** NJ GWQS

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
02637-001	M-1R(11-30)	NA	04/02/15@08:27	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	STD/2 WKS	4/16/2015
	TCL BN + SIMS + 15	Analyze	8270D SIM	STD/2 WKS	4/9/2015

Project Notes:

NOTE 1 taken by Ellen on 04/06/2015 09:48
AS PER MINDY C., SAMPLE IS FROM FUEL OIL #6 SITE. 8011 NOT REQUIRED FOR VO & FOR SVOC REPORT BN.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 15** **02637** CLIENT: EWMA 50 Divers

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = **YES/NA**

✗ = **NO**

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [signature] DATE 4/13/15

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☐

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [signature] DATE 4/13/15

Laboratory Custody Chronicle

IAL Case No.

E15-02637

Client EWMA - HQ

Project 50 DIVISION

Received On 4/ 3/2015@16:45

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	02637-001	Aqueous	n/a	n/a	4/10/15	Sylvia

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BN + SIMS + 15	-001	Aqueous	4/ 6/15	Kou-Liang	4/ 8/15	Dana

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LAST PAGE OF DOCUMENT

Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

for

Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-001
Client ID: MW-1R
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 09:55
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	0.560	J	1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	5.29		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	14.2		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	1.40		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	1.63		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	207	D	2.00	0.714
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
Continued on next page

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Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-001
Client ID: MW-1R
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 09:55
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773

ND = Analyzed for but Not Detected at the MDL

Continued on next page

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100 Misty Lane
Parsippany, NJ 07054

Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-001
Client ID: MW-1R
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 09:55
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
TOTAL VO's:	240	DJ		
TOTAL TIC's:	5.90	J		
TOTAL VO's & TIC's:	246	DJ		

Volatiles

Lab ID: 03275-002
Client ID: MW-2
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 10:50
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
Continued on next page

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Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT | MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-002
Client ID: MW-2
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 10:50
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663

ND = Analyzed for but Not Detected at the MDL
Continued on next page

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Lab Case Number: E15-03275

RL = REPORTING LIMIT | MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-002
Client ID: MW-2
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 10:50
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
TOTAL VO's:	ND			
TOTAL TIC's:	ND			
TOTAL VO's & TIC's:	ND			

Volatiles

Lab ID: 03275-003
Client ID: MW-109
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 13:23
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463

ND = Analyzed for but Not Detected at the MDL
Continued on next page

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100 Misty Lane
Parsippany, NJ 07054

Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-003
Client ID: MW-109
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 13:23
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633

ND = Analyzed for but Not Detected at the MDL
Continued on next page

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Lab Case Number: E15-03275

RL = REPORTING LIMIT | MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-003
Client ID: MW-109
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 13:23
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
TOTAL VO's:	ND			
TOTAL TIC's:	ND			
TOTAL VO's & TIC's:	ND			

ND = Analyzed for but Not Detected at the MDL

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Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-004
Client ID: FB
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 13:40
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

ND = Analyzed for but Not Detected at the MDL
Continued on next page

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Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT | MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-004
Client ID: FB
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: 13:40
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
TOTAL VO's:	ND			
TOTAL TIC's:	ND			
TOTAL VO's & TIC's:	ND			

ND = Analyzed for but Not Detected at the MDL

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

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Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT
for
Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT | MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-005
Client ID: TB
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: NA
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

ND = Analyzed for but Not Detected at the MDL
Continued on next page

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Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT | MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-005
Client ID: TB
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: NA
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818

ND = Analyzed for but Not Detected at the MDL
Continued on next page

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ANALYTICAL DATA REPORT
for
Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: 50 DIVISION (208322)
Lab Case Number: E15-03275

RL = REPORTING LIMIT | MDL = METHOD DETECTION LIMIT

Volatiles

Lab ID: 03275-005
Client ID: TB
Matrix-Units: Aqueous-ug/L
Percent Moisture: 100

Date Sampled: 4/22/2015
Time Sampled: NA
Date Analyzed: 4/24/15

Compound	Conc	Q	RL	MDL
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
TOTAL VO's:	ND			
TOTAL TIC's:	ND			
TOTAL VO's & TIC's:	ND			

ND = Analyzed for but Not Detected at the MDL

These data have been reviewed and accepted by:

Michael H. Leftin, Ph.D
Laboratory Director

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Randolph, NJ 07869
Phone: 973 361 4252
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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 03275-001
Client ID: MW-1R
Date Received: 04/22/2015
Date Analyzed: 04/24/2015
Date File: G3524.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	Unknown VOA	5.90	J	2.88

Total TICs = 5.90 J

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.lalonline.com

Customer Information

Company: EWMA
Address: 100 Canadian Plaza
Parsippany, NJ 07054
Telephone #: 973-560-1400
Fax #:
Project Manager: Dave Fullmer
EMAIL Address: dave.fullmer@ewma.com
Project Name: 50 Division (208322)
Project Location (State): NJ
Bottle Order #: BO1099
☒ "Report to"/"Invoice To" same as above
Sampled by:

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address: SAME
Attn:
FAX #

INVOICE TO:
Address: SAME
Attn:
PO #
Quote #

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☒ Results Only	☐ ASP Category A
☐ Reduced	
☐ Regulatory/ Full*	☐ ASP Category B*

EDDs

☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL

☐ YES ☐ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 1 week
Hard Copy: Std 3 week
Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015

TAT for PHC (if other than 2 weeks):

Regulatory Requirement

New Jersey	New York
☒ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VOC
MW-1R		4/22/15	0955	GW	2	1	X
MW-2		↓	1050	↓	2	2	X
MW-109		↓	1323	↓	2	3	X
FB		↓	1340	FB	2	4	X
TB		—	—	TB	2	5	X

Preservative (use code): 2
Container Type (use code): C

Sample Specific Notes:

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other

Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Special Instructions/QC Requirements & Comments:

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	4/22/15	1440		4/24/15	1558
	4/22/15	1638		4/22/15	1638

FOR LAB USE ONLY
SDG #: 3275
Cooler Temp: 4 °C

PAGE: of

E15-03275

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E15-03275: 50 DIVISION (208322)

To: Dave Fullmer
EWMA - HQ
Fax: 1(973) 560-0400
EMail: David.Fullmer@ewma.com

Report To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Dave Fullmer

Bill To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Dave Fullmer

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Result Only		Apr 22, 2015 @ 16:38	NA	Apr 29, 2015	May 13, 2015 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

**** QC Requirement (must meet):** NJ GWQS

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
03275-001	MW-1R	NA	04/22/15@09:55	Aqueous	ug/L (ppb)	
03275-002	MW-2	NA	04/22/15@10:50	Aqueous	ug/L (ppb)	
03275-003	MW-109	NA	04/22/15@13:23	Aqueous	ug/L (ppb)	
03275-004	FB	NA	04/22/15@13:40	Aqueous	ug/L (ppb)	
03275-005	TB	NA	04/22/15	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	RUSH 1 WK	5/6/2015
002	TCL VO + 15	Analyze	8260C	RUSH 1 WK	5/6/2015
003	TCL VO + 15	Analyze	8260C	RUSH 1 WK	5/6/2015
004	TCL VO + 15	Analyze	8260C	RUSH 1 WK	5/6/2015
005	TCL VO + 15	Analyze	8260C	RUSH 1 WK	5/6/2015

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 15** **03275** CLIENT: EWMA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA

✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL OB DATE 4-22-15

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** X

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [illegible] DATE 4.23.15

Laboratory Custody Chronicle

IAL Case No.

E15-03275

Client EWMA - HQ

Project 50 DIVISION (208322)

Received On 4/22/2015@16:38

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	03275-001	Aqueous	n/a	n/a	4/24/15	Sylvia
"	-002	"	n/a	n/a	4/24/15	Sylvia
"	-003	"	n/a	n/a	4/24/15	Sylvia
"	-004	"	n/a	n/a	4/24/15	Sylvia
"	-005	"	n/a	n/a	4/24/15	Sylvia

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Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: **50 DIVISION AVE - 208322**
IAL Case Number: **E15-03535**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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Table of Contents

Sample Summary

IAL Case No.

E15-03535

Client EWMA - HQ

Project 50 DIVISION AVE - 208322

Received On 4/30/2015@13:53

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
03535-001	MW-1R	n/a	4/30/2015@13:03	Aqueous	2
03535-002	FB	n/a	4/30/2015@13:15	Aqueous	2
03535-003	TB	n/a	4/30/2015	Aqueous	2

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DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicates analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL or for qualification of tentatively identified compounds.

N Presumptive evidence of a compound from the use of GC/MS library search.

X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.

Z Indicates internal standard failure. Sample results are either biased high or biased low.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E15-03535

Integrated Analytical Laboratories, LLC. received three (3) samples** from EWMA - HQ (IAL SDG# **E15-03535**, Project: 50 DIVISION AVE - 208322) on April 30, 2015 for the analysis of :

(1) TCL VO
(2) TCL VO + 15

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

Volatiles By 8260C	**Batch: 150501**	**Matrix: Aqueous**
QC	- Calibration curve met QC criteria.	
	- Internal standards recovery met QC criteria.	
	- Surrogate percent recovery met QC criteria.	
	- Method blank met QC criteria.	
	- LCS percent recovery met QC criteria.	
	- MS/MSD RPD met QC criteria.	
	- MS/MSD percent recovery met QC criteria.	
E15-03535	- All samples were analyzed within holding time.	
	- no dilution needed.	

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

5/14/2015
Date

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Integrated Analytical Laboratories
Client: Environmental Waste Management Associates, LLC.
Project Location: 50 DIVISION AVE - 208322
IAL Project #: E15-03535
IAL Sample ID(s): E15-03535-001 ~ -003
Sampling Date(s): 4/30/2015

List of DKQP Method Used:
TCL VO by 8260C

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "

		YES	NO	N/A
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP	X		
1A	Were the method specified handling, preservation, and holding time requirements met?	X		
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)			X
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	X		
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?		X	
5B	Were these reporting limits met?			X
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?		X	

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Waste Management Associates, LLC.
Project: 50 DIVISION AVE - 208322
Lab Case No.: E15-03535

	Lab ID:	03535-001			03535-002			03535-003		
	Client ID:	MW-1R			FB			TB		
	Matrix:	Aqueous			Aqueous			Aqueous		
	Sampled Date	4/30/15			4/30/15			4/30/15		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(ug/L)*			*(ug/L)*			*(ug/L)*		
Trichlorofluoromethane		2.86		0.813	ND		0.813	ND		0.813
cis-1,2-Dichloroethene		14.8		0.479	ND		0.479	ND		0.479
Chloroform		1.18		0.511	ND		0.511	ND		0.511
Carbon tetrachloride		1.15		0.668	ND		0.668	ND		0.668
Trichloroethene		199		0.357	ND		0.357	ND		0.357
TOTAL VO's:		219			ND			ND		
TOTAL TIC's:		ND			ND			~		
TOTAL VO's & TIC's:		219			ND			~		

ND = Analyzed for but Not Detected at the MDL
~ = Sample not analyzed for

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 03535-001
Client ID: MW-1R
Date Received: 04/30/2015
Date Analyzed: 05/04/2015
Data file: G3810.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	2.86		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	14.8		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	1.18		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	1.15		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
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4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 03535-001
Client ID: MW-1R
Date Received: 04/30/2015
Date Analyzed: 05/04/2015
Data file: G3810.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441
Total Target Compounds (52):	219			

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 03535-001
Client ID: MW-1R
Date Received: 04/30/2015
Date Analyzed: 05/04/2015
Date File: G3810.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 03535-002
Client ID: FB
Date Received: 04/30/2015
Date Analyzed: 05/04/2015
Data file: G3811.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 03535-002
Client ID: FB
Date Received: 04/30/2015
Date Analyzed: 05/04/2015
Data file: G3811.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 03535-002
Client ID: FB
Date Received: 04/30/2015
Date Analyzed: 05/04/2015
Date File: G3811.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 03535-003
Client ID: TB
Date Received: 04/30/2015
Date Analyzed: 05/04/2015
Data file: G3812.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 03535-003
Client ID: TB
Date Received: 04/30/2015
Date Analyzed: 05/04/2015
Data file: G3812.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 05/04/2015

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA150504a	AQUEOUS	G3809.D	98	98	92
03535-001	AQUEOUS	G3810.D	98	99	96
03535-002	AQUEOUS	G3811.D	101	98	93
03535-003	AQUEOUS	G3812.D	102	99	96
03274-001	AQUEOUS	G3813.D	100	101	94
03324-002	AQUEOUS	G3814.D	106	98	94
03324-006	AQUEOUS	G3815.D	104	98	95
03324-007	AQUEOUS	G3816.D	107	96	92
03324-001	AQUEOUS	G3817.D	107	95	93
03324-003	AQUEOUS	G3818.D	101	95	90
03324-004	AQUEOUS	G3819.D	107	98	93
03324-005	AQUEOUS	G3820.D	105	100	95
03573-001	AQUEOUS	G3821.D	107	99	97
03506-2DL	AQUEOUS	G3822.D	104	101	103
03506-003	AQUEOUS	G3823.D	98	99	95
03506-005	AQUEOUS	G3824.D	101	99	99
03410-007	AQUEOUS	G3825.D	102	99	98
03344-001	AQUEOUS	G3826.D	93	99	95
LCSA150504a	AQUEOUS	G3827.D	87	101	96
3573-001MS	AQUEOUS	G3828.D	85	100	96
3573-001MSD	AQUEOUS	G3829.D	84	102	96

			Leachate	
	Concentration	DKQPs	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	59-138	43-133
SMC2 = Toluene-d8	50 ppb	70-130	40-133	39-137
SMC3 = Bromofluorobenzene	50 ppb	70-130	42-152	45-145

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

8260

LCS ACCURACY REPORT

Lab ID: LCSA150504a
Date Received: NA
Date Analyzed: 05/04/2015
LCS Data file: G3827.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.	#
Dichlorodifluoromethane	50.0	0.0	37.9	76	
Chloromethane	50.0	0.0	40.2	80	
Vinyl chloride	50.0	0.0	36.0	72	
Bromomethane	50.0	0.0	37.5	75	
Chloroethane	50.0	0.0	36.9	74	
Trichlorofluoromethane	50.0	0.0	40.6	81	
Acrolein	150	0.0	186.3	124	
1,1-Dichloroethene	50.0	0.0	35.8	72	
Acetone	50.0	0.0	47.9	96	
Carbon disulfide	50.0	0.0	36.3	73	
Vinyl acetate	50.0	0.0	51.0	102	
Methylene chloride	50.0	0.0	49.9	100	
Acrylonitrile	150.0	0.0	176.4	118	
tert-Butyl alcohol (TBA)	100.0	0.0	109.1	109	
trans-1,2-Dichloroethene	50.0	0.0	46.2	92	
Methyl tert-butyl ether (MTBE)	50.0	0.0	52.8	106	
1,1-Dichloroethane	50.0	0.0	47.6	95	
Diisopropyl ether (DIPE)	50.0	0.0	54.5	109	
cis-1,2-Dichloroethene	50.0	0.0	54.1	108	
2,2-Dichloropropane	50.0	0.0	35.4	71	
2-Butanone (MEK)	50.0	0.0	54.4	109	
Bromochloromethane	50.0	0.0	53.9	108	
Chloroform	50.0	0.0	47.2	94	
1,1,1-Trichloroethane	50.0	0.0	42.5	85	
Carbon tetrachloride	50.0	0.0	39.1	78	
1,1-Dichloropropene	50.0	0.0	43.4	87	
1,2-Dichloroethane (EDC)	50.0	0.0	47.0	94	
Benzene	50.0	0.0	51.6	103	
Trichloroethene	50.0	0.0	47.8	96	
1,2-Dichloropropane	50.0	0.0	55.1	110	
Dibromomethane	50.0	0.0	54.5	109	
1,4-Dioxane	1500	0.0	1614	108	
Bromodichloromethane	50.0	0.0	50.5	101	
2-Chloroethyl vinyl ether	50.0	0.0	52.0	104	
cis-1,3-Dichloropropene	50.0	0.0	51.8	104	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	53.2	106	
Toluene	50.0	0.0	50.7	101	
trans-1,3-Dichloropropene	50.0	0.0	49.5	99	
1,1,2-Trichloroethane	50.0	0.0	58.4	117	
Tetrachloroethene	50.0	0.0	44.5	89	
1,3-Dichloropropane	50.0	0.0	58.2	116	

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150504a
Date Received: NA
Date Analyzed: 05/04/2015
LCS Data file: G3827.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#
2-Hexanone	50.0	0.0	52.6	105	
Dibromochloromethane	50.0	0.0	54.4	109	
1,2-Dibromoethane (EDB)	50.0	0.0	59.5	119	
Chlorobenzene	50.0	0.0	48.3	97	
1,1,1,2-Tetrachloroethane	50.0	0.0	50.1	100	
Ethylbenzene	50.0	0.0	48.6	97	
m,p-Xylene	100.0	0.0	99.1	99	
o-Xylene	50.0	0.0	53.7	107	
Styrene	50.0	0.0	56.4	113	
Bromoform	50.0	0.0	54.6	109	
Isopropylbenzene	50.0	0.0	50.4	101	
1,1,2,2-Tetrachloroethane	50.0	0.0	55.3	111	
Bromobenzene	50.0	0.0	50.3	101	
1,2,3-Trichloropropane	50.0	0.0	53.5	107	
n-Propylbenzene	50.0	0.0	45.4	91	
2-Chlorotoluene	50.0	0.0	46.9	94	
1,3,5-Trimethylbenzene	50.0	0.0	47.4	95	
4-Chlorotoluene	50.0	0.0	46.9	94	
tert-Butylbenzene	50.0	0.0	48.6	97	
1,2,4-Trimethylbenzene	50.0	0.0	47.6	95	
sec-Butylbenzene	50.0	0.0	44.8	90	
1,3-Dichlorobenzene	50.0	0.0	45.4	91	
4-Isopropyltoluene	50.0	0.0	44.7	89	
1,4-Dichlorobenzene	50.0	0.0	45.2	90	
n-Butylbenzene	50.0	0.0	44.5	89	
1,2-Dichlorobenzene	50.0	0.0	46.7	93	
1,2-Dibromo-3-chloropropane	50.0	0.0	54.0	108	
1,2,4-Trichlorobenzene	50.0	0.0	54.7	109	
Hexachlorobutadiene	50.0	0.0	39.0	78	
Naphthalene	50.0	0.0	60.4	121	
1,2,3-Trichlorobenzene	50.0	0.0	53.1	106	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	36.2	72	
Methyl acetate	50.0	0.0	56.4	113	
Cyclohexane	50.0	0.0	40.1	80	
Methylcyclohexane	50.0	0.0	41.1	82	

	Leachate Aqueous/Meoh	Soil/Sediment
LCS Recovery Limits	70-130	70-130

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA150504a
Date Received: NA
Date Analyzed: 05/04/2015
LCS Data file: G3827.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.	#

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

8260

MS/MSD SPIKE REPORT

Lab ID: 03573-001
Client ID: MW-1/5.66
Date Received: NA
Date Analyzed: 05/04/2015
MS Data file: G3828.D
MSD Data file: G3829.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50.0	0.0	35.8	72		36.6	73		2	
Chloromethane	50.0	0.0	36.4	73		38.8	78		6	
Vinyl chloride	50.0	0.0	39.3	79		43.7	87		11	
Bromomethane	50.0	0.0	36.2	72		39.7	79		9	
Chloroethane	50.0	0.0	50.7	101		47.0	94		8	
Trichlorofluoromethane	50.0	0.0	37.0	74		45.0	90		20	
Acrolein	150	0.0	153	102		143	95		7	
1,1-Dichloroethene	50.0	0.0	55.8	112		48.4	97		14	
Acetone	50.0	0.0	40.0	80		39.0	78		3	
Carbon disulfide	50.0	0.0	39.6	79		42.2	84		6	
Vinyl acetate	50.0	0.0	43.2	86		40.1	80		7	
Methylene chloride	50.0	0.0	42.0	84		39.1	78		7	
Acrylonitrile	150	0.0	144	96		151	101		5	
tert-Butyl alcohol (TBA)	100	0.0	93.2	93		89.7	90		4	
trans-1,2-Dichloroethene	50.0	0.0	41.2	82		37.0	74		11	
Methyl tert-butyl ether (MTBE)	50.0	0.0	43.5	87		41.6	83		4	
1,1-Dichloroethane	50.0	0.0	41.3	83		37.9	76		9	
Diisopropyl ether (DIPE)	50.0	0.0	45.7	91		42.7	85		7	
cis-1,2-Dichloroethene	50.0	0.0	46.6	93		43.1	86		8	
2,2-Dichloropropane	50.0	0.0	35.2	70		35.6	71		1	
2-Butanone (MEK)	50.0	0.3	43.5	86		43.1	86		1	
Bromochloromethane	50.0	0.0	44.3	89		42.1	84		5	
Chloroform	50.0	0.0	40.4	81		37.3	75		8	
1,1,1-Trichloroethane	50.0	0.0	39.5	79		35.4	71		11	
Carbon tetrachloride	50.0	0.0	37.1	74		38.8	78		4	
1,1-Dichloropropene	50.0	0.0	40.2	80		39.4	79		2	
1,2-Dichloroethane (EDC)	50.0	0.0	37.6	75		36.2	72		4	
Benzene	50.0	0.0	45.1	90		41.3	83		9	
Trichloroethene	50.0	0.0	42.6	85		38.6	77		10	
1,2-Dichloropropane	50.0	0.0	45.8	92		43.0	86		6	
Dibromomethane	50.0	0.0	44.7	89		43.3	87		3	
1,4-Dioxane	1,500	0.0	1595	106		1543	103		3	
Bromodichloromethane	50.0	0.0	41.7	83		39.8	80		5	
2-Chloroethyl vinyl ether	50.0	0.0	0.0	0	*$	0.0	0	*$	NC	*$
cis-1,3-Dichloropropene	50.0	0.0	42.1	84		41.9	84		0	
4-Methyl-2-pentanone (MIBK)	50.0	0.0	48.0	96		49.1	98		2	
Toluene	50.0	0.0	44.2	88		41.3	83		7	
trans-1,3-Dichloropropene	50.0	0.0	40.0	80		40.9	82		2	
1,1,2-Trichloroethane	50.0	0.0	47.4	95		46.6	93		2	
Tetrachloroethene	50.0	0.0	40.2	80		36.4	73		10	
1,3-Dichloropropane	50.0	0.0	47.5	95		47.0	94		1	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 03573-001
Client ID: MW-1/5.66
Date Received: NA
Date Analyzed: 05/04/2015
MS Data file: G3828.D
MSD Data file: G3829.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
2-Hexanone	50.0	0.0	50.6	101		53.5	107		6	
Dibromochloromethane	50.0	0.0	44.2	88		43.8	88		1	
1,2-Dibromoethane (EDB)	50.0	0.0	49.0	98		48.1	96		2	
Chlorobenzene	50.0	0.0	41.2	82		38.6	77		7	
1,1,1,2-Tetrachloroethane	50.0	0.0	42.1	84		39.9	80		5	
Ethylbenzene	50.0	0.0	42.3	85		39.0	78		8	
m,p-Xylene	100	0.0	86.2	86		79.8	80		8	
o-Xylene	50.0	0.0	46.1	92		43.0	86		7	
Styrene	50.0	0.0	47.7	95		45.0	90		6	
Bromoform	50.0	0.0	42.2	84		43.2	86		2	
Isopropylbenzene	50.0	0.0	44.7	89		40.4	81		10	
1,1,2,2-Tetrachloroethane	50.0	0.0	44.7	89		43.6	87		2	
Bromobenzene	50.0	0.0	42.1	84		40.1	80		5	
1,2,3-Trichloropropane	50.0	0.0	42.9	86		42.3	85		1	
n-Propylbenzene	50.0	0.0	40.4	81		36.6	73		10	
2-Chlorotoluene	50.0	0.0	39.6	79		37.4	75		6	
1,3,5-Trimethylbenzene	50.0	0.0	41.4	83		37.8	76		9	
4-Chlorotoluene	50.0	0.0	39.6	79		37.4	75		6	
tert-Butylbenzene	50.0	0.0	42.5	85		38.9	78		9	
1,2,4-Trimethylbenzene	50.0	0.0	40.8	82		37.8	76		8	
sec-Butylbenzene	50.0	0.0	40.8	82		36.0	72		13	
1,3-Dichlorobenzene	50.0	0.0	38.4	77		36.5	73		5	
4-Isopropyltoluene	50.0	0.0	40.0	80		35.9	72		11	
1,4-Dichlorobenzene	50.0	0.0	37.7	75		35.9	72		5	
n-Butylbenzene	50.0	0.0	39.7	79		35.7	71		11	
1,2-Dichlorobenzene	50.0	0.0	38.8	78		37.3	75		4	
1,2-Dibromo-3-chloropropane	50.0	0.0	42.8	86		42.4	85		1	
1,2,4-Trichlorobenzene	50.0	0.0	45.4	91		43.5	87		4	
Hexachlorobutadiene	50.0	0.0	36.7	73		35.2	70		4	
Naphthalene	50.0	0.0	50.6	101		49.5	99		2	
1,2,3-Trichlorobenzene	50.0	0.0	43.9	88		42.1	84		4	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.0	37.0	74		39.6	79		7	
Methyl acetate	50.0	0.0	44.8	90		43.5	87		3	
Cyclohexane	50.0	0.0	42.1	84		35.2	70		18	
Methylcyclohexane	50.0	0.0	43.8	88		47.1	94		7	

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 03573-001
Client ID: MW-1/5.66
Date Received: NA
Date Analyzed: 05/04/2015
MS Data file: G3828.D
MSD Data file: G3829.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate Aqueous/Meoh	Soil/Sediment
MS/MSD Recovery Limits	70-130	70-130
MS/MSD RPD Limits (IAL/DKQP)	30/20	30/30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G3809.D

Instrument ID: MSD_G

Date Analyzed: 05/04/2015

Time Analyzed: 12:42

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-1R	03535-001	05/04/2015	13:10
FB	03535-002	05/04/2015	13:37
TB	03535-003	05/04/2015	14:06
MW-7	03274-001	05/04/2015	14:34
MW-8	03324-002	05/04/2015	15:01
FB	03324-006	05/04/2015	15:29
TB	03324-007	05/04/2015	15:57
MW-5	03324-001	05/04/2015	16:25
PMW-2	03324-003	05/04/2015	16:53
PMW-1	03324-004	05/04/2015	17:21
IW-1	03324-005	05/04/2015	17:49
MW-1/5.66	03573-001	05/04/2015	18:18
MW-11S	03506-2DL	05/04/2015	18:45
MW-13S	03506-003	05/04/2015	19:13
MW-12S	03506-005	05/04/2015	19:41
AOC_2_TW-3	03410-007	05/04/2015	20:09
PZ-1/6.05	03344-001	05/04/2015	20:37
LCSA150504a	LCSA150504a	05/04/2015	21:05
3573-001MS	3573-001MS	05/04/2015	21:33
3473-001MSD	3573-001MSD	05/04/2015	22:01

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3313.D BFB Injection Date: 04/17/2015

Inst ID: MSD_G BFB Injection Time: 13:10

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.9			
75	30.0 - 60.0% of mass 95	57.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	57.5			
175	5.0 - 9.0% of mass 174	4.6	(	8.0	)1
176	95.0 - 101.0% of mass 174	57.8	(	100.6	)1
177	5.0 - 9.0% of mass 176	3.9	(	6.8	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC100	ICC100	G3318.D	04/17/2015	17:22
ICC001	ICC001	G3314.D	04/17/2015	15:30
ICC002	ICC002	G3315.D	04/17/2015	15:58
ICC005	ICC005	G3316.D	04/17/2015	16:26
ICC020	ICC020	G3317.D	04/17/2015	16:53
ICC150	ICC150	G3319.D	04/17/2015	17:50
ICC200	ICC200	G3320.D	04/17/2015	18:16
ICV100	ICV100	G3322.D	04/17/2015	19:17

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3806.D

BFB Injection Date: 05/04/2015

Inst ID: MSD_G

BFB Injection Time: 10:43

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	22.3			
75	30.0 - 60.0% of mass 95	56.1			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.8			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	65.9			
175	5.0 - 9.0% of mass 174	5.1	(	7.8	)1
176	95.0 - 101.0% of mass 174	66.0	(	100.2	)1
177	5.0 - 9.0% of mass 176	4.6	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	G3807.D	05/04/2015	11:45
BLKA150504a	BLKA150504a	G3809.D	05/04/2015	12:42
MW-1R	03535-001	G3810.D	05/04/2015	13:10
FB	03535-002	G3811.D	05/04/2015	13:37
TB	03535-003	G3812.D	05/04/2015	14:06
MW-7	03274-001	G3813.D	05/04/2015	14:34
MW-8	03324-002	G3814.D	05/04/2015	15:01
FB	03324-006	G3815.D	05/04/2015	15:29
TB	03324-007	G3816.D	05/04/2015	15:57
MW-5	03324-001	G3817.D	05/04/2015	16:25
PMW-2	03324-003	G3818.D	05/04/2015	16:53
PMW-1	03324-004	G3819.D	05/04/2015	17:21
IW-1	03324-005	G3820.D	05/04/2015	17:49
MW-1/5.66	03573-001	G3821.D	05/04/2015	18:18
MW-11S	03506-2DL	G3822.D	05/04/2015	18:45
MW-13S	03506-003	G3823.D	05/04/2015	19:13
MW-12S	03506-005	G3824.D	05/04/2015	19:41
AOC_2_TW-3	03410-007	G3825.D	05/04/2015	20:09
PZ-1/6.05	03344-001	G3826.D	05/04/2015	20:37
LCSA150504a	LCSA150504a	G3827.D	05/04/2015	21:05

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3806.D

BFB Injection Date : 05/04/201

Inst ID: MSD_G

BFB Injection Time: 10:43

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	22.3			
75	30.0 - 60.0% of mass 95	56.1			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.8			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	65.9			
175	5.0 - 9.0% of mass 174	5.1	(	7.8	)1
176	95.0 - 101.0% of mass 174	66.0	(	100.2	)1
177	5.0 - 9.0% of mass 176	4.6	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
3573-001MS	3573-001MS	G3828.D	05/04/2015	21:33
3473-001MSD	3573-001MSD	G3829.D	05/04/2015	22:01

Method Path : C:\MSDCHEM\1\METHODS\
Method File : G8041715.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C
Last Update : Mon Apr 20 09:00:42 2015
Response Via : Initial Calibration

04/20/15
MS 412-1.8

Calibration Files
1 =G3314.D 2 =G3315.D 5 =G3316.D
20 =G3317.D 100 =G3318.D 150 =G3319.D 200 =G3320.D

		Compound	1	2	5	20	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	1.241	0.956	1.171	1.009	0.882	1.007	0.884	1.022	13.48
3)	P	Chloromethane	0.854	0.801	0.901	0.808	0.813	0.877	0.813	0.838	4.69
4)	C	Vinyl chloride	0.938	0.810	0.930	0.848	0.791	0.864	0.788	0.853	7.28
5)	T	Bromomethane	0.452	0.418	0.472	0.421	0.386	0.405	0.244	0.400	18.65
6)	T	Chloroethane	0.495	0.437	0.512	0.460	0.434	0.471	0.429	0.463	6.91
7)	T	Trichlorofluorome	0.769	0.762	0.923	0.961	0.884	0.942	0.886	0.875	9.14
8)	T	Acrolein	0.050	0.041	0.047	0.039	0.041	0.048	0.039	0.043	10.52
9)	MC	1,1-Dichloroethen	0.652	0.549	0.639	0.544	0.516	0.588	0.529	0.574	9.41
10)	T	Acetone			0.394	0.347	0.302	0.323	0.293	0.332	12.14
11)	T	Carbon disulfide	2.090	1.519	1.731	1.572	1.560	1.753	1.656	1.697	11.46
12)	T	Vinyl acetate	1.830	1.775	2.232	2.280	2.242	2.834	2.127	2.188	15.97
13)	T	Methylene chlorid		0.730	0.846	0.756	0.695	0.761	0.686	0.746	7.79
14)	T	Acrylonitrile	0.265	0.228	0.269	0.221	0.245	0.281	0.240	0.250	8.97
15)	T	tert-Butyl alcoho		0.063	0.066	0.063	0.066	0.076	0.072	0.068	7.66
16)	T	trans-1,2-Dichlor	0.737	0.639	0.740	0.649	0.591	0.659	0.595	0.659	9.15
17)	T	Methyl tert-butyl	1.637	1.641	2.066	2.047	2.000	2.202	2.010	1.943	11.24
18)	P	1,1-Dichloroethan	1.189	1.162	1.392	1.289	1.239	1.390	1.259	1.274	7.08
19)	T	Diisopropyl ether	1.711	1.724	2.339	2.416	2.332	2.551	2.293	2.195	15.35
20)	T	cis-1,2-Dichloroe	0.580	0.556	0.677	0.662	0.645	0.714	0.646	0.640	8.57
21)	T	2,2-Dichloropropa	0.515	0.568	0.646	0.671	0.557	0.667	0.587	0.602	10.02
22)	T	2-Butanone (MEK)	0.543	0.386	0.412	0.372	0.356	0.392	0.346	0.401	16.56
23)	T	Bromochloromethan	0.280	0.262	0.325	0.302	0.292	0.323	0.290	0.296	7.58
25)	C	Chloroform	1.187	1.167	1.388	1.294	1.248	1.383	1.237	1.272	6.91
26)	T	1,1,1-Trichloroet	0.926	0.916	1.131	1.088	1.041	1.149	1.074	1.046	8.88
27)	T	Carbon tetrachlor	0.935	0.816	1.026	0.940	0.935	1.040	0.936	0.947	7.77
28)	T	1,1-Dichloroprope	1.108	0.868	1.036	0.939	0.891	1.009	0.909	0.966	9.08
29)	T	1,2-Dichloroethan	1.110	1.082	1.289	1.177	1.131	1.216	1.060	1.152	7.01
30)	S	1,2-Dichloroethan	0.839	0.883	0.918	0.893	0.880	0.868	0.824	0.872	3.67
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.668	1.554	1.817	1.684	1.551	1.691	1.531	1.642	6.29
33)	M	Trichloroethene	0.452	0.395	0.455	0.420	0.410	0.449	0.418	0.428	5.43
34)	C	1,2-Dichloropropa	0.394	0.370	0.455	0.421	0.395	0.430	0.381	0.407	7.37
35)	T	Dibromomethane	0.229	0.218	0.265	0.252	0.250	0.269	0.241	0.246	7.40
36)	T	1,4-Dioxane	0.003	0.003	0.004	0.003	0.003	0.004	0.004	0.003	9.17
37)	T	Bromodichlorometh	0.459	0.466	0.585	0.584	0.605	0.661	0.591	0.564	13.21
38)	T	2-Chloroethyl vin	0.095	0.111	0.108	0.160	0.194	0.225	0.220	0.159	34.79
39)	T	cis-1,3-Dichlorop	0.503	0.512	0.528	0.622	0.660	0.735	0.661	0.603	14.86
40)	T	4-Methyl-2-pentan	0.353	0.327	0.312	0.369	0.390	0.425	0.388	0.366	10.70
41)	S	Toluene-d8	1.299	1.318	1.340	1.353	1.364	1.328	1.342	1.335	1.63
42)	MC	Toluene	1.095	0.961	1.100	1.040	0.976	1.054	0.956	1.026	6.00
43)	T	trans-1,3-Dichlor	0.497	0.444	0.503	0.573	0.636	0.699	0.627	0.569	16.00
44)	T	1,1,2-Trichloroet	0.251	0.245	0.296	0.290	0.281	0.302	0.276	0.277	7.91
45)	T	Tetrachloroethene	0.516	0.392	0.437	0.381	0.349	0.377	0.344	0.399	14.96
46)	T	1,3-Dichloropropa	0.521	0.504	0.618	0.623	0.600	0.633	0.573	0.582	8.80
47)	T	2-Hexanone	0.283	0.210	0.242	0.310	0.337	0.372	0.336	0.299	19.23
48)	T	Dibromochlorometh	0.297	0.251	0.315	0.353	0.380	0.416	0.377	0.341	16.68
49)	T	1,2-Dibromoethane	0.252	0.240	0.301	0.310	0.323	0.354	0.322	0.300	13.48
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.323	1.113	1.229	1.090	1.010	1.108	0.997	1.124	10.36
52)	T	1,1,1,2-Tetrachlo	0.326	0.335	0.385	0.388	0.387	0.428	0.385	0.376	9.52

53)	C	Ethylbenzene	2.083	1.750	2.142	2.050	1.963	2.166	1.951	2.015	7.07
54)	T	m,p-Xylene	0.783	0.653	0.802	0.732	0.661	0.725	0.653	0.716	8.68
55)	T	o-Xylene		0.527	0.718	0.742	0.676	0.735	0.663	0.677	11.84
56)	T	Styrene	0.927	0.882	1.237	1.261	1.186	1.293	1.162	1.135	14.45
57)	P	Bromoform	0.166	0.151	0.168	0.194	0.224	0.256	0.235	0.199	19.95
58)	T	Isopropylbenzene	1.626	1.378	1.898	1.961	1.898	2.105	1.905	1.824	13.31
59)	S	Bromofluorobenzen	0.626	0.633	0.641	0.644	0.641	0.642	0.633	0.637	1.04
60)	P	1,1,2,2-Tetrachlo	0.485	0.404	0.454	0.431	0.407	0.476	0.403	0.437	7.99
61)	T	Bromobenzene	0.522	0.437	0.489	0.473	0.449	0.494	0.440	0.472	6.75
62)	T	1,2,3-Trichloropr	0.492	0.420	0.508	0.482	0.453	0.497	0.442	0.471	6.97
63)	T	n-Propylbenzene	2.931	2.136	2.657	2.477	2.345	2.611	2.331	2.498	10.44
64)	T	2-Chlorotoluene	1.815	1.432	1.744	1.626	1.529	1.697	1.511	1.622	8.53
65)	T	1,3,5-Trimethylbe	1.840	1.525	1.922	1.794	1.690	1.861	1.643	1.754	7.99
66)	T	4-Chlorotoluene	1.815	1.432	1.744	1.626	1.529	1.697	1.511	1.622	8.53
67)	T	tert-Butylbenzene	1.182	0.967	1.333	1.325	1.284	1.440	1.274	1.258	11.89
68)	T	1,2,4-Trimethylbe	1.854	1.512	1.971	1.798	1.697	1.881	1.664	1.768	8.75
69)	T	sec-Butylbenzene	2.268	1.734	2.223	2.042	1.950	2.187	1.946	2.050	9.28
70)	T	1,3-Dichlorobenze	1.315	0.917	1.071	0.927	0.880	0.980	0.863	0.993	15.90
71)	T	4-Isopropyltoluen	1.830	1.319	1.731	1.579	1.514	1.684	1.494	1.593	10.71
72)	T	1,4-Dichlorobenze	1.341	0.947	1.065	0.922	0.876	0.972	0.861	0.998	16.61
73)	T	n-Butylbenzene	1.911	1.277	1.683	1.580	1.507	1.677	1.445	1.583	12.75
74)	T	1,2-Dichlorobenze	1.249	0.893	1.027	0.895	0.810	0.879	0.772	0.932	17.29
75)	T	1,2-Dibromo-3-chl	0.078	0.059	0.072	0.074	0.085	0.096	0.086	0.079	15.25
76)	T	1,2,4-Trichlorobe	0.512	0.502	0.555	0.572	0.586	0.633	0.546	0.558	8.05
77)	T	Hexachlorobutadie	0.275	0.283	0.300	0.252	0.236	0.263	0.224	0.262	10.24
79)	T	1,2,3-Trichlorobe	0.492	0.456	0.521	0.488	0.477	0.522	0.446	0.486	6.00
80)	T	1,1,2-Trichloro-1	0.262	0.371	0.404	0.337	0.289	0.337	0.294	0.328	15.12
81)	T	Methyl acetate	0.287	0.347	0.401	0.359	0.352	0.377	0.351	0.354	9.85
82)	T	Cyclohexane		0.770	0.866	0.766	0.710	0.842	0.752	0.784	7.45
83)	T	Methylcyclohexane	0.684	0.506	0.639	0.597	0.529	0.634	0.555	0.592	10.93

(#) = Out of Range ### Number of calibration levels exceeded format ###

G8041715.M Mon Apr 20 09:00:48 2015 1

Data Path : C:\MSDCHEM\1\DATA\04-17-15\
Data File : G3322.D
Acq On : 17 Apr 2015 19:17
Operator : Sylvia
Sample : ICV100,ICV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 20 09:06:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 09:00:42 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	112	0.00
2	T	Dichlorodifluoromethane	1.022	0.884	13.5	112	0.00
3	P	Chloromethane	0.838	0.847	-1.1	117	-0.01
4	C	Vinyl chloride	0.853	0.799	6.3	113	0.00
5	T	Bromomethane	0.400	0.377	5.8	109	0.04
6	T	Chloroethane	0.463	0.434	6.3	112	0.04
7	T	Trichlorofluoromethane	0.875	0.878	-0.3	111	0.00
8	T	Acrolein	0.043	0.049	-14.0	133	0.00
9	MC	1,1-Dichloroethene	0.574	0.525	8.5	114	0.00
10	T	Acetone	0.332	0.281	15.4	104	0.00
11	T	Carbon disulfide	1.697	1.606	5.4	115	0.00
12	T	Vinyl acetate	2.188	2.535	-15.9	126	0.00
13	T	Methylene chloride	0.746	0.706	5.4	114	0.00
14	T	Acrylonitrile	0.250	0.295	-18.0	134	0.00
15	T	tert-Butyl alcohol (TBA)	0.068	0.070	-2.9	120	0.00
16	T	trans-1,2-Dichloroethene	0.659	0.612	7.1	116	0.00
17	T	Methyl tert-butyl ether (MT	1.943	2.042	-5.1	114	0.00
18	P	1,1-Dichloroethane	1.274	1.265	0.7	114	0.00
19	T	Diisopropyl ether (DIPE)	2.195	2.352	-7.2	113	0.00
20	T	cis-1,2-Dichloroethene	0.640	0.664	-3.8	115	0.00
21	T	2,2-Dichloropropane	0.602	0.638	-6.0	128	0.00
22	T	2-Butanone (MEK)	0.401	0.342	14.7	107	0.00
23	T	Bromochloromethane	0.296	0.297	-0.3	114	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	115	0.00
25	C	Chloroform	1.272	1.245	2.1	111	0.00
26	T	1,1,1-Trichloroethane	1.046	1.066	-1.9	114	0.00
27	T	Carbon tetrachloride	0.947	0.935	1.3	112	0.00
28	T	1,1-Dichloropropene	0.966	0.917	5.1	115	0.00
29	T	1,2-Dichloroethane (EDC)	1.152	1.086	5.7	107	0.00
30	S	1,2-Dichloroethane-d4	0.872	0.831	4.7	106	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	112	0.00
32	M	Benzene	1.642	1.596	2.8	116	0.00
33	M	Trichloroethene	0.428	0.410	4.2	112	0.00
34	C	1,2-Dichloropropane	0.407	0.401	1.5	114	0.00
35	T	Dibromomethane	0.246	0.243	1.2	109	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	120	0.00
37	T	Bromodichloromethane	0.564	0.589	-4.4	109	0.00
39	T	cis-1,3-Dichloropropene	0.603	0.666	-10.4	113	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.366	0.387	-5.7	111	0.00
41	S	Toluene-d8	1.335	1.323	0.9	109	0.00
42	MC	Toluene	1.026	0.995	3.0	115	0.00
43	T	trans-1,3-Dichloropropene	0.569	0.629	-10.5	111	0.00
44	T	1,1,2-Trichloroethane	0.277	0.283	-2.2	114	0.00
45	T	Tetrachloroethene	0.399	0.358	10.3	115	0.00
46	T	1,3-Dichloropropane	0.582	0.599	-2.9	112	0.00

47	T	2-Hexanone	0.299	0.322	-7.7	108	0.00
48	T	Dibromochloromethane	0.341	0.376	-10.3	111	0.00
49	T	1,2-Dibromoethane (EDB)	0.300	0.326	-8.7	113	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00
51	MP	Chlorobenzene	1.124	1.041	7.4	114	0.00
52	T	1,1,1,2-Tetrachloroethane	0.376	0.392	-4.3	112	0.00
53	C	Ethylbenzene	2.015	2.031	-0.8	114	0.00
54	T	m,p-Xylene	0.716	0.689	3.8	115	0.00
55	T	o-Xylene	0.677	0.691	-2.1	113	0.00
56	T	Styrene	1.135	1.215	-7.0	113	0.00
57	P	Bromoform	0.199	0.226	-13.6	112	0.00
58	T	Isopropylbenzene	1.824	1.953	-7.1	113	0.00
59	S	Bromofluorobenzene	0.637	0.628	1.4	108	0.00
60	P	1,1,2,2-Tetrachloroethane	0.437	0.445	-1.8	121	0.00
61	T	Bromobenzene	0.472	0.459	2.8	113	0.00
62	T	1,2,3-Trichloropropane	0.471	0.456	3.2	111	0.00
63	T	n-Propylbenzene	2.498	2.423	3.0	114	0.00
64	T	2-Chlorotoluene	1.622	1.562	3.7	113	0.00
65	T	1,3,5-Trimethylbenzene	1.754	1.715	2.2	112	0.00
66	T	4-Chlorotoluene	1.622	1.562	3.7	113	0.00
67	T	tert-Butylbenzene	1.258	1.327	-5.5	114	0.00
68	T	1,2,4-Trimethylbenzene	1.768	1.721	2.7	112	0.00
69	T	sec-Butylbenzene	2.050	2.022	1.4	114	0.00
70	T	1,3-Dichlorobenzene	0.993	0.897	9.7	112	0.00
71	T	4-Isopropyltoluene	1.593	1.557	2.3	113	0.00
72	T	1,4-Dichlorobenzene	0.998	0.888	11.0	112	0.00
73	T	n-Butylbenzene	1.583	1.543	2.5	113	0.00
74	T	1,2-Dichlorobenzene	0.932	0.812	12.9	110	0.00
75	T	1,2-Dibromo-3-chloropropane	0.079	0.085	-7.6	110	0.00
76	T	1,2,4-Trichlorobenzene	0.558	0.586	-5.0	110	0.00
77	T	Hexachlorobutadiene	0.262	0.241	8.0	112	0.00
78	T	Naphthalene	1.055	1.167	-10.6	112	0.00
79	T	1,2,3-Trichlorobenzene	0.486	0.482	0.8	111	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.328	0.305	7.0	116	0.00
81	T	Methyl acetate	0.354	0.345	2.5	108	0.00
82	T	Cyclohexane	0.784	0.765	2.4	119	0.00
83	T	Methylcyclohexane	0.592	0.585	1.2	122	0.00

(#) = Out of Range

G8041715.M Mon Apr 20 09:06:15 2015 1

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3807.D
Acq On : 4 May 2015 11:45
Operator : Sylvia
Sample : CCV100,CCV100,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 16:08:30 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	T	Dichlorodifluoromethane	1.022	0.833	18.5	95	0.00
3	P	Chloromethane	0.838	0.727	13.2	90	0.00
4	C	Vinyl chloride	0.853	0.698	18.2	89	0.01
5	T	Bromomethane	0.400	0.355	11.3	93	0.04
6	T	Chloroethane	0.463	0.388	16.2	90	0.04
7	T	Trichlorofluoromethane	0.875	0.797	8.9	91	0.00
9	MC	1,1-Dichloroethene	0.574	0.489	14.8	96	0.04
10	T	Acetone	0.332	0.395	-19.0	132	0.00
11	T	Carbon disulfide	1.697	1.401	17.4	91	0.02
12	T	Vinyl acetate	2.188	2.594	-18.6	117	0.00
13	T	Methylene chloride	0.746	0.716	4.0	104	0.00
15	T	tert-Butyl alcohol (TBA)	0.068	0.071	-4.4	109	-0.01
16	T	trans-1,2-Dichloroethene	0.659	0.621	5.8	106	0.00
17	T	Methyl tert-butyl ether (MT	1.943	2.010	-3.4	101	0.00
18	P	1,1-Dichloroethane	1.274	1.244	2.4	101	0.00
19	T	Diisopropyl ether (DIPE)	2.195	2.331	-6.2	101	0.00
20	T	cis-1,2-Dichloroethene	0.640	0.683	-6.7	107	0.00
21	T	2,2-Dichloropropane	0.602	0.530	12.0	96	0.00
22	T	2-Butanone (MEK)	0.401	0.447	-11.5	127	0.00
23	T	Bromochloromethane	0.296	0.312	-5.4	108	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	97	0.00
25	C	Chloroform	1.272	1.258	1.1	102	0.00
26	T	1,1,1-Trichloroethane	1.046	0.993	5.1	96	0.00
27	T	Carbon tetrachloride	0.947	0.907	4.2	98	0.00
28	T	1,1-Dichloropropene	0.966	0.900	6.8	102	0.00
29	T	1,2-Dichloroethane (EDC)	1.152	1.127	2.2	101	0.00
30	S	1,2-Dichloroethane-d4	0.872	0.831	4.7	95	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	97	0.00
32	M	Benzene	1.642	1.652	-0.6	104	0.00
33	M	Trichloroethene	0.428	0.415	3.0	98	0.00
34	C	1,2-Dichloropropane	0.407	0.413	-1.5	102	0.00
35	T	Dibromomethane	0.246	0.274	-11.4	107	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	108	0.00
37	T	Bromodichloromethane	0.564	0.607	-7.6	98	0.00
39	T	cis-1,3-Dichloropropene	0.603	0.665	-10.3	98	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.366	0.384	-4.9	96	0.00
41	S	Toluene-d8	1.335	1.322	1.0	94	0.00
42	MC	Toluene	1.026	1.007	1.9	100	0.00
43	T	trans-1,3-Dichloropropene	0.569	0.660	-16.0	101	0.00
44	T	1,1,2-Trichloroethane	0.277	0.314	-13.4	109	0.00
45	T	Tetrachloroethene	0.399	0.359	10.0	100	0.00
46	T	1,3-Dichloropropane	0.582	0.646	-11.0	105	0.00
47	T	2-Hexanone	0.299	0.289	3.3	83	0.00
48	T	Dibromochloromethane	0.341	0.371	-8.8	95	0.00

49	T	1,2-Dibromoethane (EDB)	0.300	0.352	-17.3	106	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
51	MP	Chlorobenzene	1.124	1.077	4.2	104	0.00
52	T	1,1,1,2-Tetrachloroethane	0.376	0.401	-6.6	101	0.00
53	C	Ethylbenzene	2.015	2.031	-0.8	101	0.00
54	T	m,p-Xylene	0.716	0.722	-0.8	107	0.00
55	T	o-Xylene	0.677	0.736	-8.7	107	0.00
56	T	Styrene	1.135	1.284	-13.1	106	0.00
57	P	Bromoform	0.199	0.207	-4.0	91	0.00
58	T	Isopropylbenzene	1.824	2.018	-10.6	104	0.00
59	S	Bromofluorobenzene	0.637	0.653	-2.5	100	0.00
60	P	1,1,2,2-Tetrachloroethane	0.437	0.453	-3.7	109	0.00
61	T	Bromobenzene	0.472	0.477	-1.1	104	0.00
62	T	1,2,3-Trichloropropane	0.471	0.529	-12.3	114	0.00
63	T	n-Propylbenzene	2.498	2.462	1.4	103	0.00
64	T	2-Chlorotoluene	1.622	1.617	0.3	104	0.00
65	T	1,3,5-Trimethylbenzene	1.754	1.781	-1.5	103	0.00
66	T	4-Chlorotoluene	1.622	1.617	0.3	104	0.00
67	T	tert-Butylbenzene	1.258	1.339	-6.4	102	0.00
68	T	1,2,4-Trimethylbenzene	1.768	1.781	-0.7	103	0.00
69	T	sec-Butylbenzene	2.050	2.052	-0.1	103	0.00
70	T	1,3-Dichlorobenzene	0.993	0.931	6.2	104	0.00
71	T	4-Isopropyltoluene	1.593	1.571	1.4	102	0.00
72	T	1,4-Dichlorobenzene	0.998	0.923	7.5	103	0.00
73	T	n-Butylbenzene	1.583	1.586	-0.2	103	0.00
74	T	1,2-Dichlorobenzene	0.932	0.872	6.4	105	0.00
75	T	1,2-Dibromo-3-chloropropane	0.079	0.070	11.4	81	0.00
76	T	1,2,4-Trichlorobenzene	0.558	0.660	-18.3	110	0.00
77	T	Hexachlorobutadiene	0.262	0.254	3.1	105	0.00
79	T	1,2,3-Trichlorobenzene	0.486	0.517	-6.4	106	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.328	0.283	13.7	96	0.00
81	T	Methyl acetate	0.354	0.411	-16.1	114	0.00
82	T	Cyclohexane	0.784	0.732	6.6	101	0.00
83	T	Methylcyclohexane	0.592	0.579	2.2	107	0.00

(#) = Out of Range

G8041715.M Mon May 04 16:08:34 2015 1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3318.D

Date Analyzed: 04/17/2015

Instrument ID: MSD_G

Time Analyzed: 17:22

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	371731		6.21		594522		7.03		588081		10.38	
	UPPER LIMIT	743462		6.71		1189044		7.53		1176162		10.88	
	LOWER LIMIT	185865.5		5.71		297261		6.53		294040.5		9.88	
	LAB SAMPLE ID												
01	ICC001	402940		6.21		629282		7.03		597043		10.38	
02	ICC002	370676		6.21		585366		7.03		559508		10.38	
03	ICC005	313170		6.21		505492		7.03		490916		10.38	
04	ICC020	359710		6.21		570027		7.03		560693		10.38	
05	ICC150	372733		6.21		598667		7.03		579594		10.38	
06	ICC200	420643		6.21		679866		7.03		660102		10.38	
07	ICV100	415546		6.21		668394		7.03		648360		10.38	
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3807.D

Date Analyzed: 05/04/2015

Instrument ID: MSD_G

Time Analyzed: 11:45

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	375320	6.21	578371	7.03	575733	10.38
	UPPER LIMIT	750640	6.71	1156742	7.53	1151466	10.88
	LOWER LIMIT	187660	5.71	289185.5	6.53	287866.5	9.88
	LAB SAMPLE ID						
01	BLKA150504a	369744	6.21	595470	7.03	584214	10.38
02	03535-001	366230	6.21	573597	7.03	577955	10.38
03	03535-002	344472	6.21	548845	7.03	539565	10.38
04	03535-003	339238	6.21	544511	7.03	545011	10.38
05	03274-001	350182	6.21	540985	7.03	547603	10.38
06	03324-002	293161	6.21	473458	7.03	465258	10.38
07	03324-006	324281	6.21	524980	7.03	520218	10.38
08	03324-007	279894	6.21	455708	7.03	438660	10.38
09	03324-001	305512	6.21	498053	7.03	482595	10.38
10	03324-003	308540	6.21	478557	7.03	476643	10.38
11	03324-004	301918	6.21	491011	7.03	493916	10.38
12	03324-005	307949	6.21	493040	7.03	504440	10.38
13	03573-001	307123	6.21	503570	7.03	508563	10.38
14	03506-2DL	313650	6.21	510712	7.03	518112	10.38
15	03506-003	340882	6.21	544886	7.03	554896	10.38
16	03506-005	329322	6.21	538029	7.03	547961	10.38
17	03410-007	329029	6.21	549279	7.03	568704	10.38
18	03344-001	407210	6.21	674901	7.03	680801	10.38
19	LCSA150504a	359832	6.21	574827	7.03	575979	10.38
20	3573-001MS	460560	6.21	721078	7.03	727783	10.38
21	3573-001MSD	467796	6.21	731907	7.03	747227	10.38
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3810.D
Acq On : 4 May 2015 13:10
Operator : Sylvia
Sample : MW-1R,03535-001,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 3 Sample Multiplier: 1

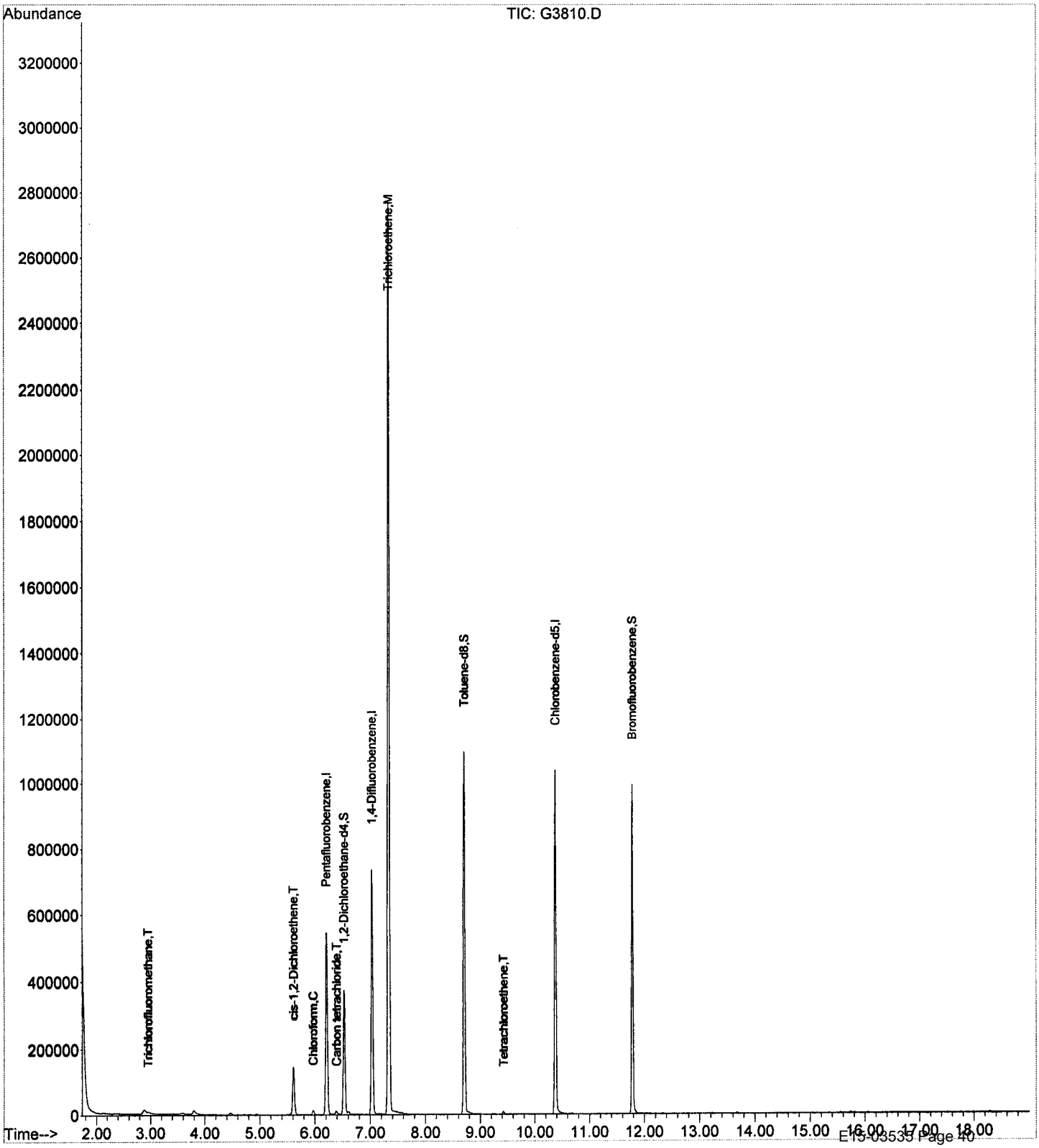
Quant Time: May 04 14:58:33 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.21	168	366230	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.03	114	573597	50.00	UG		0.00
50) Chlorobenzene-d5	10.38	117	577955	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.53	65	312279	48.89	UG		0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 97.78%				
41) Toluene-d8	8.70	98	757011	49.43	UG		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.86%				
59) Bromofluorobenzene	11.78	95	352348	47.85	UG		0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 95.70%				
Target Compounds							Qvalue
7) Trichlorofluoromethane	2.96	101	18325m	2.86	UG		
20) cis-1,2-Dichloroethene	5.61	96	69380	14.80	UG	#	100
25) Chloroform	5.97	83	10961	1.18	UG		100
27) Carbon tetrachloride	6.39	117	7942	1.15	UG		98
33) Trichloroethene	7.33	95	978277	199.02	UG		
45) Tetrachloroethene	9.42	166	2223	0.49	UG	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3810.D
Acq On : 4 May 2015 13:10
Operator : Sylvia
Sample : MW-1R,03535-001,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 14:58:33 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3810.D
Acq On : 4 May 2015 13:10
Operator : Sylvia
Sample : MW-1R,03535-001,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8041715.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.880	206	220	261	rVB4	13356	81091	1.40%	0.524%
2	5.611	724	742	760	rBV	146758	342202	5.91%	2.210%
3	6.207	844	856	881	rBV	545009	1197433	20.69%	7.734%
4	6.526	906	917	928	rBV	372476	807929	13.96%	5.218%
5	7.028	1001	1013	1037	rBV	735215	1481611	25.60%	9.570%
6	7.331	1059	1071	1114	rBV	2773776	5787582	100.00%	37.382%
7	8.707	1323	1334	1372	rBV	1096193	2136471	36.91%	13.799%
8	10.375	1642	1653	1680	rBV	1038389	1944577	33.60%	12.560%
9	11.777	1909	1921	1947	rBV	993381	1703349	29.43%	11.002%

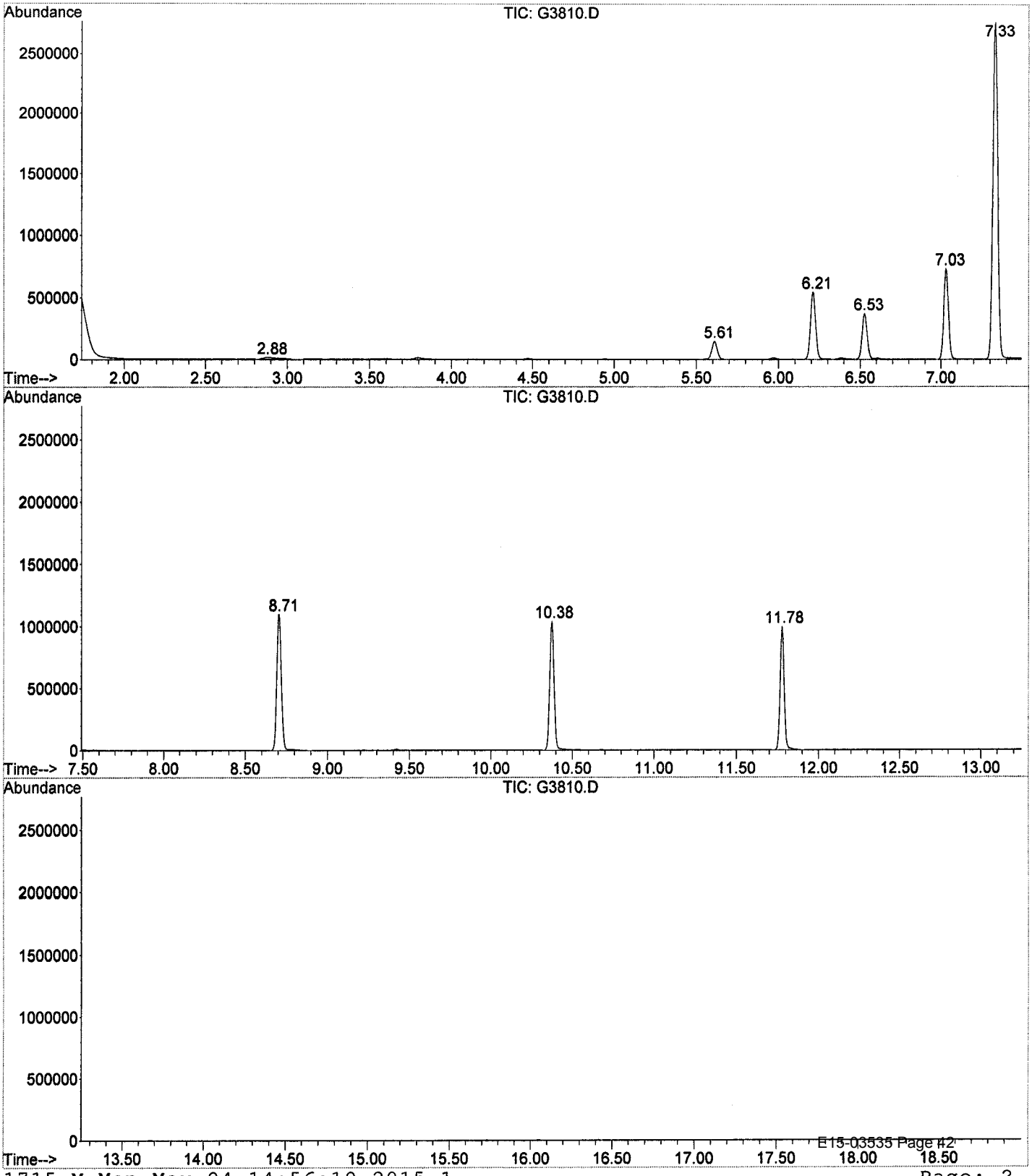
Sum of corrected areas: 15482245

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3810.D
Acq On : 4 May 2015 13:10
Operator : Sylvia
Sample : MW-1R,03535-001,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3811.D
Acq On : 4 May 2015 13:37
Operator : Sylvia
Sample : FB,03535-002,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 16:23:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	344472	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	548845	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	539565	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	304314	50.65	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 101.30%			
41) Toluene-d8	8.70	98	718506	49.03	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.06%			
59) Bromofluorobenzene	11.78	95	321014	46.70	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 93.40%			

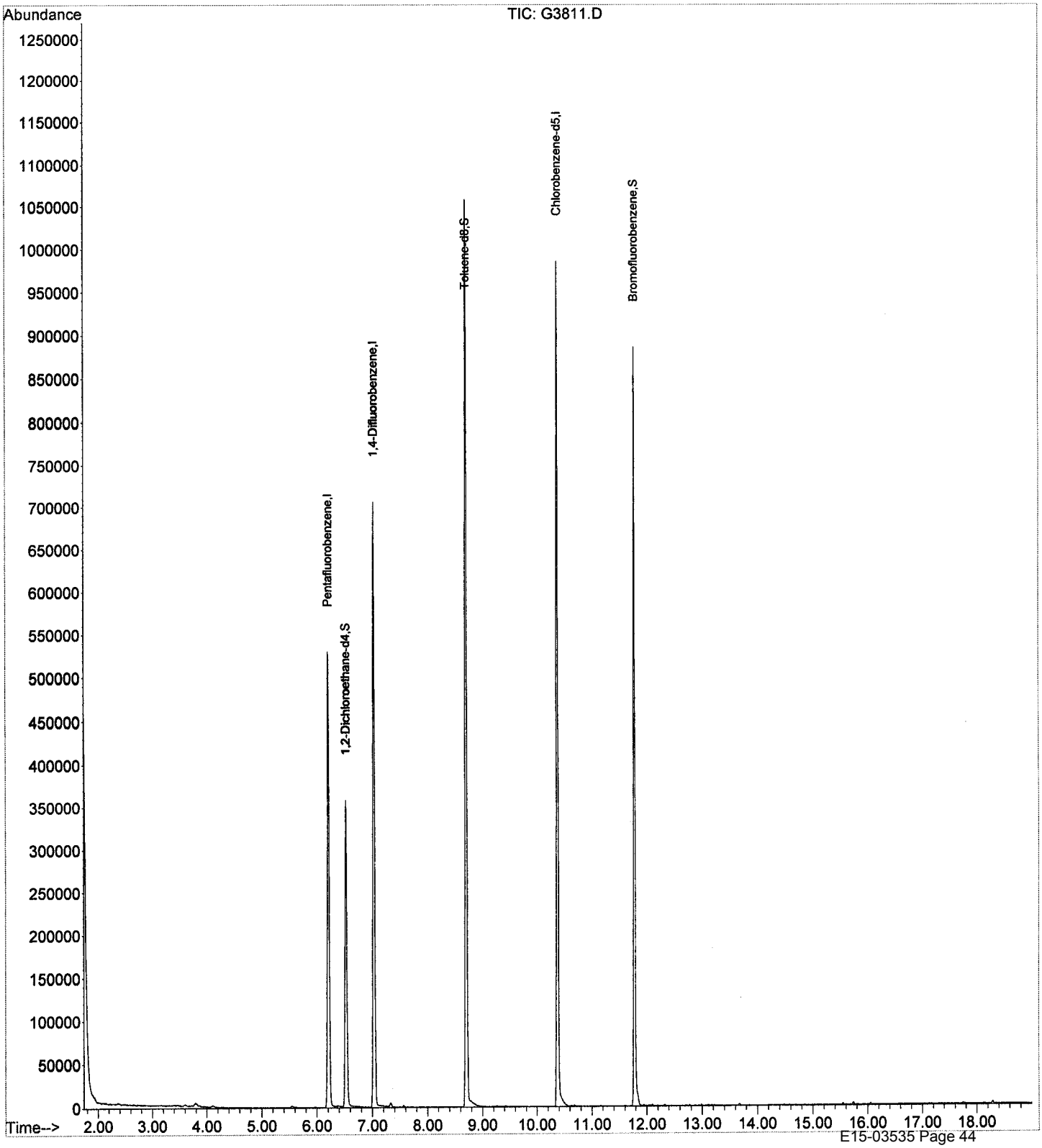
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3811.D
Acq On : 4 May 2015 13:37
Operator : Sylvia
Sample : FB,03535-002,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 16:23:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3811.D
Acq On : 4 May 2015 13:37
Operator : Sylvia
Sample : FB,03535-002,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8041715.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	842	856	879	rBV	529566	1142818	55.87%	13.001%
2	6.526	904	917	942	rBV	357005	785636	38.41%	8.938%
3	7.028	1003	1013	1034	rBV	705906	1426023	69.71%	16.223%
4	8.702	1321	1333	1383	rBV	1058778	2045523	100.00%	23.271%
5	10.375	1640	1653	1690	rBV	985939	1832855	89.60%	20.852%
6	11.777	1910	1921	1947	rBV	885276	1557116	76.12%	17.715%

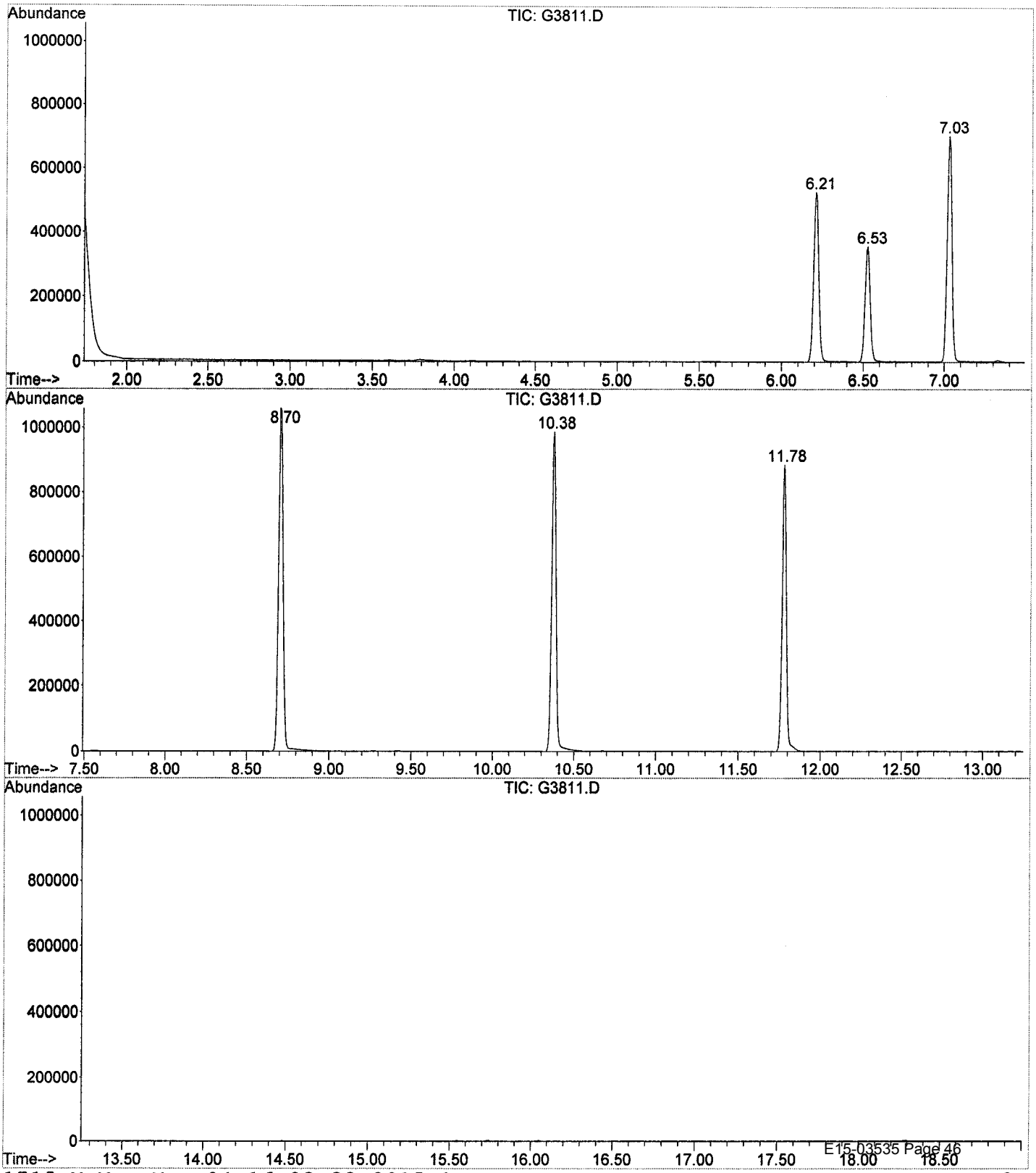
Sum of corrected areas: 8789971

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3811.D
Acq On : 4 May 2015 13:37
Operator : Sylvia
Sample : FB,03535-002,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3812.D
Acq On : 4 May 2015 14:06
Operator : Sylvia
Sample : TB,03535-003,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 16:24:36 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	339238	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	544511	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	545011	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	302135	51.07	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 102.14%			
41) Toluene-d8	8.70	98	717830	49.38	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.76%			
59) Bromofluorobenzene	11.78	95	331932	47.81	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 95.62%			

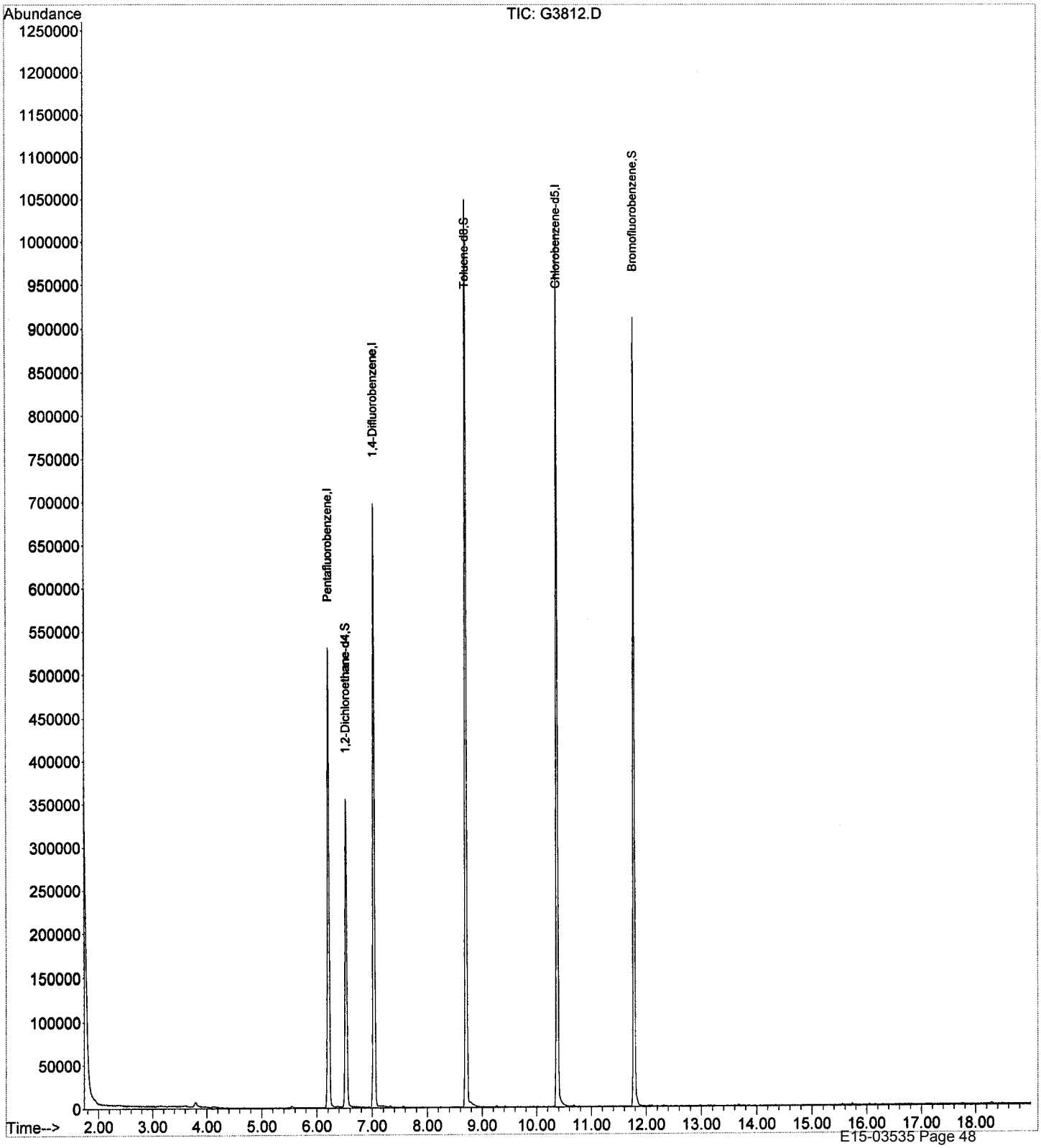
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3812.D
Acq On : 4 May 2015 14:06
Operator : Sylvia
Sample : TB,03535-003,A,5mL,100
Misc : EWMA/50_DIVISION_A,04/30/15,04/30/15,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 16:24:36 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150504a
Client ID: BLKA150504a
Date Received: NA
Date Analyzed: 05/04/2015
Data file: G3809.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.685
Chloromethane	ND		1.00	0.493
Vinyl chloride	ND		1.00	0.463
Bromomethane	ND		1.00	0.684
Chloroethane	ND		1.00	0.829
Trichlorofluoromethane	ND		1.00	0.813
1,1-Dichloroethene	ND		1.00	0.491
Acetone	ND		5.00	1.43
Carbon disulfide	ND		1.00	0.505
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		1.00	0.544
Methyl tert-butyl ether (MTBE)	ND		1.00	0.491
1,1-Dichloroethane	ND		1.00	0.358
cis-1,2-Dichloroethene	ND		1.00	0.479
2-Butanone (MEK)	ND		1.00	0.872
Bromochloromethane	ND		1.00	0.636
Chloroform	ND		1.00	0.511
1,1,1-Trichloroethane	ND		1.00	0.485
Carbon tetrachloride	ND		1.00	0.668
1,2-Dichloroethane (EDC)	ND		1.00	0.573
Benzene	ND		1.00	0.388
Trichloroethene	ND		1.00	0.357
1,2-Dichloropropane	ND		1.00	0.556
1,4-Dioxane	ND		200	82.7
Bromodichloromethane	ND		1.00	0.526
cis-1,3-Dichloropropene	ND		1.00	0.441
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.867

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA150504a
Client ID: BLKA150504a
Date Received: NA
Date Analyzed: 05/04/2015
Data file: G3809.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.370
trans-1,3-Dichloropropene	ND		1.00	0.416
1,1,2-Trichloroethane	ND		1.00	0.633
Tetrachloroethene	ND		1.00	0.495
2-Hexanone	ND		1.00	0.693
Dibromochloromethane	ND		1.00	0.516
1,2-Dibromoethane (EDB)	ND		1.00	0.677
Chlorobenzene	ND		1.00	0.395
Ethylbenzene	ND		1.00	0.420
Total Xylenes	ND		2.00	1.04
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.663
Isopropylbenzene	ND		1.00	0.581
1,1,2,2-Tetrachloroethane	ND		1.00	0.691
1,3-Dichlorobenzene	ND		1.00	0.416
1,4-Dichlorobenzene	ND		1.00	0.409
1,2-Dichlorobenzene	ND		1.00	0.401
1,2-Dibromo-3-chloropropane	ND		1.00	0.930
1,2,4-Trichlorobenzene	ND		1.00	0.483
1,2,3-Trichlorobenzene	ND		1.00	0.449
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.972
Methyl acetate	ND		1.00	0.897
Cyclohexane	ND		2.00	0.818
Methylcyclohexane	ND		1.00	0.773
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.441

Total Target Compounds (52): 0

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA150504a
Client ID: BLKA150504a
Date Received: NA
Date Analyzed: 05/04/2015
Data file: G3809.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
	No peaks detected			

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3809.D
Acq On : 4 May 2015 12:42
Operator : Sylvia
Sample : BLKA150504a,BLKA150504a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 16:11:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration

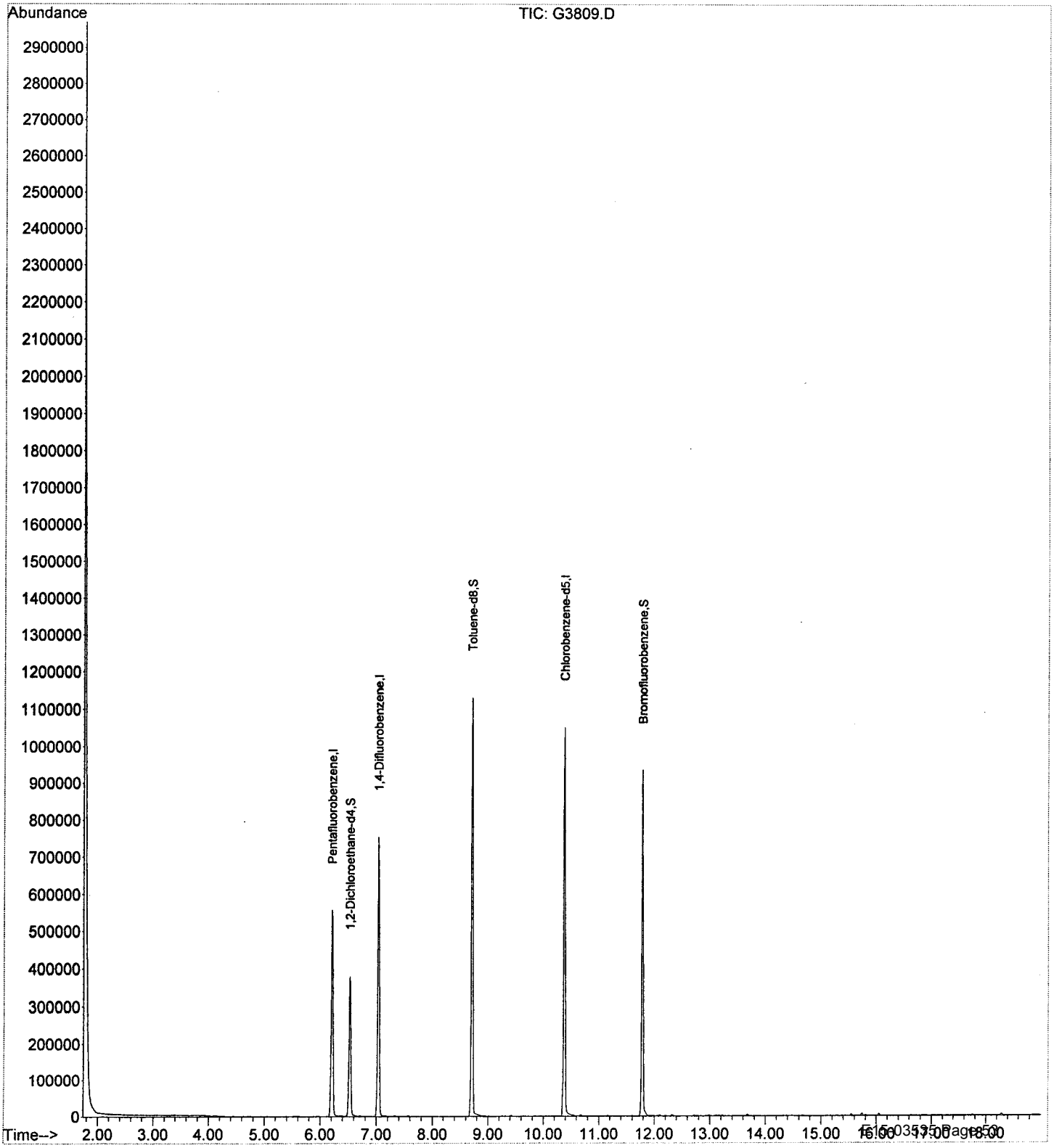
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.21	168	369744	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.03	114	595470	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	584214	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	316491	49.08	UG	0.00
Spiked Amount 50.000	Range 69 - 166		Recovery = 98.16%			
41) Toluene-d8	8.71	98	776905	48.87	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.74%			
59) Bromofluorobenzene	11.78	95	342044	45.96	UG	0.00
Spiked Amount 50.000	Range 66 - 120		Recovery = 91.92%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3809.D
Acq On : 4 May 2015 12:42
Operator : Sylvia
Sample : BLKA150504a,BLKA150504a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 16:11:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C
QLast Update : Mon Apr 20 14:24:07 2015
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3809.D
Acq On : 4 May 2015 12:42
Operator : Sylvia
Sample : BLKA150504a,BLKA150504a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\G8041715.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260C

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.207	843	856	880	rBV	557323	1205585	55.18%	12.902%
2	6.526	904	917	952	rBV	378000	833788	38.16%	8.923%
3	7.028	1003	1013	1029	rBV	753009	1515787	69.38%	16.221%
4	8.702	1320	1333	1384	rBV	1129399	2184745	100.00%	23.380%
5	10.375	1640	1653	1681	rBV	1048988	1953617	89.42%	20.907%
6	11.777	1905	1921	1948	rBV	933866	1650945	75.57%	17.668%

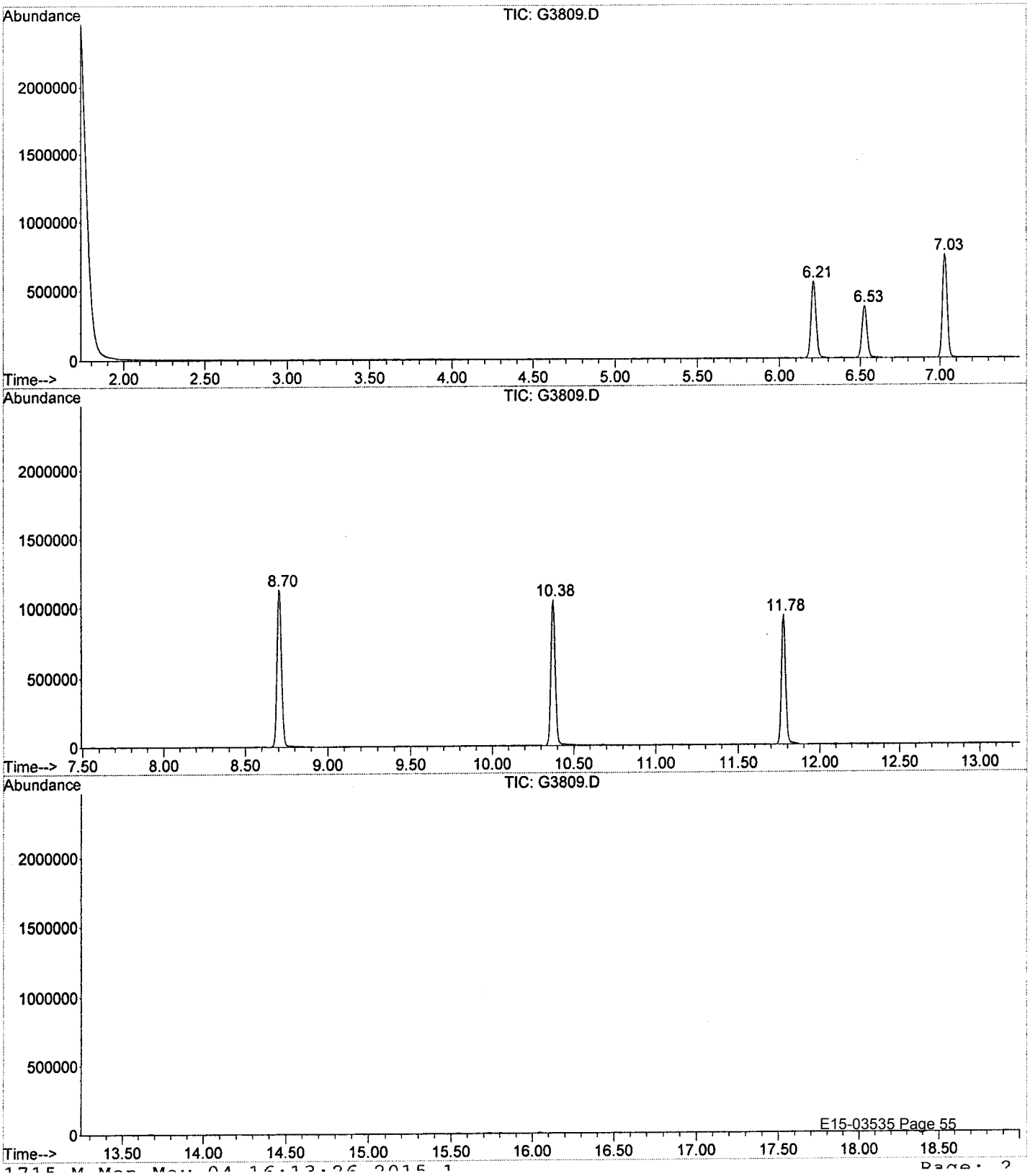
Sum of corrected areas: 9344467

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\05-04-15\
Data File : G3809.D
Acq On : 4 May 2015 12:42
Operator : Sylvia
Sample : BLKA150504a,BLKA150504a,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\G8041715.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260C

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



G8041715.M Mon May 04 16:13:26 2015 1 Page: 2

SAMPLE TRACKING

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information	Reporting Information	**Rush TAT Charge	Deliverables	EDDs	Concentrations Expected:
Company: EWMA	REPORT TO:	24 hr - 100%...	NJ, CT, PA: ☐ Results Only ☐ Reduced ☐ Regulatory/ Full*	NY: ☐ ASP Category A ☐ ASP Category B*	☐ NJ SRP ☐ NYSDEC EQuIS ☐ lab approved custom EDD ☐ NO EDD REQ'D	Low Med High
Address:	Address:	48 hr - 75%....				These samples have been previously analyzed by IAL
	Same	72 hr - 50%....				☐ YES ☐ NO
Telephone #:	Attn:	96 hr - 35%....				
Fax #:	FAX #	5 day - 25%....				
Project Manager: Dave Fullmer	INVOICE TO:	6-9 day - 10%				
EMAIL Address:	Address:					
Project Name: 50 Division Ave	Same					
Project Location (State): NJ	Attn: Same					
Bottle Order #: ~~Proj~~ #208322	PO #					
☐ "Report to"/"Invoice To" same as above	Quote #					
Sampled by: Joe Bukowski	Sample Matrix					

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed *only* if pre-approved)** _____
Hard Copy: Std 3 week Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2 ☐ DRO-8015

TAT for PHC (if other than 2 weeks): _____

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

DW - Drinking Water, WW - Waste Water, GW - Groundwater, SW - Surface Water, LIQ - Liquid (Specify), OI - Oil, S - Soil, SOL - Solid, SL - Sludge, W - Wipe, B - Biphasic

COMPLETED BY IAL: ____ Field Sampling ____ Equipment Rental

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	ANALYTICAL PARAMETERS (please note if contingent): TCL VO+TICs	VO							Sample Specific Notes:
MW-1R		4-30-15	1303	GW	2	1	X								
FB		4-30-15	1315	FB	2	2	X								
TB		4-30-15	0830	TB	2	3		X							
Preservative (use code)							2	2							
Container Type (use code)							C	C							

Known Hazard: YES / NO
Describe:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other

Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Special Instructions/QC Requirements & Comments:
FB+TB = STD TAT
MW-1R = 48hr TAT
Any Questions Please Call Dave Fullmer

FOR LAB USE ONLY
SDG #: 3535
Cooler Temp: 4 °C

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
** Tracking #

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
Joe Bukowski	4/30/15	1353		4/30/15	1353

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

E-03535 Page 57

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E15-03535: 50 DIVISION AVE - 208322

To: Dave Fullmer
EWMA - HQ
Fax: 1(973) 560-0400
EMail: David.Fullmer@ewma.com

Report To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Dave Fullmer

Bill To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Dave Fullmer

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced		Apr 30, 2015 @ 13:53	NA	May 04, 2015	May 21, 2015 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. SRP TXT

**** QC Requirement (must meet):** NJ GWQS

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
03535-001	MW-1R	NA	04/30/15@13:03	Aqueous	ug/L (ppb)	
03535-002	FB	NA	04/30/15@13:15	Aqueous	ug/L (ppb)	
03535-003	TB	NA	04/30/15	Aqueous	ug/L (ppb)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260C	RUSH 48 HRS	5/14/2015
002	TCL VO + 15	Analyze	8260C	STD/2 WKS	5/14/2015
003	TCL VO	Analyze	8260C	STD/2 WKS	5/14/2015

Project Notes:

NOTE 1 taken by Ellen on 04/30/2015 02:05
SAMPLE #1 ON 48 HR TAT, RESULTS DUE 5/4.

SAMPLES #2 & #3 ON STD TAT, RESULTS DUE 5/14.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989-5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 15** **03535** CLIENT: EWMA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

KEY

✓ = YES/NA

✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL OZ DATE 4/30/15

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** X

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL MD DATE 4/30

Laboratory Custody Chronicle

IAL Case No.

E15-03535

Client EWMA - HQ

Project 50 DIVISION AVE - 208322

Received On 4/30/2015@13:53

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO	03535-003	Aqueous	n/a	n/a	5/ 4/15	Sylvia
TCL VO + 15	-001	Aqueous	n/a	n/a	5/ 4/15	Sylvia
"	-002	"	n/a	n/a	5/ 4/15	Sylvia

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

LAST PAGE OF DOCUMENT

Preliminary Assessment / Site Investigation Report

Property Known As:

50 Division Avenue
Millington (Long Hill), NJ
NJDEP SRP PI No. 024069
EWMA Project No. 208322

March 2019

Appendix 17

EDD Submittal Confirmation Email

MaryBeth Jakubowski

From: DEP SRPEDD <SRPEDD@dep.nj.gov>
Sent: Friday, March 15, 2019 3:13 PM
To: MaryBeth Jakubowski
Subject: 024069, LSR170001, 024069, HB238386, (Directory: 15-03535) - Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; erdtst-7-1-8.txt; erresult-7-1-8.txt; ersample-7-1-8.txt; HZRESULT.TXT; HZSAMPLE.TXT; rstp-7-1-8.txt; SampleLoc-7-1-8.KML

The EDD submission via email from (MaryBeth.Jakubowski@ewma.com) on (3/15/2019 2:43:34 PM) with the subjectline "[EXTERNAL] 024069, 93-01-07-1125"

The following identifiers were in the DTST file:

- Directory: 15-03535
- DESC: 50 Division Ave
- SRPID: 024069
- Submit Date: 3/15/2019

This submission has been issued an SRP Catalog ID: HB238386

Submission status: Passed.

Please do **not** resubmit.

EDD data deliverable must be submitted only once.
- To fulfill Key Document requirements attach only a copy of this email as an appendix to the document.
- Do **not** resubmit any approved EDD deliverable as part of a portal submission.

Email ID: OEM_28053
Sub ID:SUB_72676

MaryBeth Jakubowski

From: DEP SRPEDD <SRPEDD@dep.nj.gov>
Sent: Friday, March 15, 2019 3:14 PM
To: MaryBeth Jakubowski
Subject: 024069, LSR170001, 024069, HB238387, (Directory: 15-03275) - Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; erdtst-7-1-8.txt; erresult-7-1-8.txt; ersample-7-1-8.txt; HZRESULT.TXT; HZSAMPLE.TXT; rstp-7-1-8.txt; SampleLoc-7-1-8.KML

The EDD submission via email from (MaryBeth.Jakubowski@ewma.com) on (3/15/2019 2:42:07 PM) with the subjectline "[EXTERNAL] 024069, 93-01-07-1125"

The following identifiers were in the DTST file:

- Directory: 15-03275
- DESC: 50 Division Ave
- SRPID: 024069
- Submit Date: 3/15/2019

This submission has been issued an SRP Catalog ID: HB238387

Submission status: Passed.

Please do **not** resubmit.

EDD data deliverable must be submitted only once.
- To fulfill Key Document requirements attach only a copy of this email as an appendix to the document.
- Do **not** resubmit any approved EDD deliverable as part of a portal submission.

Email ID: OEM_28054
Sub ID:SUB_72677

MaryBeth Jakubowski

From: DEP SRPEDD <SRPEDD@dep.nj.gov>
Sent: Friday, March 15, 2019 3:16 PM
To: MaryBeth Jakubowski
Subject: 024069, LSR170001, 024069, HB238388, (Directory: 15-02637) - Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; erdtst-7-1-8.txt; erresult-7-1-8.txt; ersample-7-1-8.txt; HZRESULT.TXT; HZSAMPLE.TXT; rstp-7-1-8.txt; SampleLoc-7-1-8.KML

The EDD submission via email from (MaryBeth.Jakubowski@ewma.com) on (3/15/2019 2:40:10 PM) with the subjectline "[EXTERNAL] 024069, 93-01-07-1125"

The following identifiers were in the DTST file:

- Directory: 15-02637
- DESC: 50 Division Ave
- SRPID: 024069
- Submit Date: 3/15/2019

This submission has been issued an SRP Catalog ID: HB238388

Submission status: Passed.

Please do **not** resubmit.

EDD data deliverable must be submitted only once.
- To fulfill Key Document requirements attach only a copy of this email as an appendix to the document.
- Do **not** resubmit any approved EDD deliverable as part of a portal submission.

Email ID: OEM_28055
Sub ID:SUB_72678

MaryBeth Jakubowski

From:	DEP SRPEDD <SRPEDD@dep.nj.gov>
Sent:	Friday, March 15, 2019 3:17 PM
To:	MaryBeth Jakubowski
Subject:	024069, LSR170001, 024069, HB238389, (Directory: 13-09198) - Passed
Attachments:	DTST.TXT; EDSA_Error_Log.html; erdtst-7-1-8.txt; erresult-7-1-8.txt; ersample-7-1-8.txt; HZRESULT.TXT; HZSAMPLE.TXT; rstp-7-1-8.txt; SampleLoc-7-1-8.KML

The EDD submission via email from (MaryBeth.Jakubowski@ewma.com) on (3/15/2019 2:37:21 PM) with the subjectline "[EXTERNAL] 024069, 93-01-07-1125"

The following identifiers were in the DTST file:

- Directory: 13-09198
- DESC: 50 Division Ave
- SRPID: 24069
- Submit Date: 3/15/2019

This submission has been issued an SRP Catalog ID: HB238389

Submission status: Passed.

Please do **not** resubmit.

EDD data deliverable must be submitted only once.
- To fulfill Key Document requirements attach only a copy of this email as an appendix to the document.
- Do **not** resubmit any approved EDD deliverable as part of a portal submission.

Email ID: OEM_28056
Sub ID:SUB_72679

MaryBeth Jakubowski

From:	DEP SRPEDD <SRPEDD@dep.nj.gov>
Sent:	Friday, March 15, 2019 3:18 PM
To:	MaryBeth Jakubowski
Subject:	024069, LSR170001, 024069, HB238390, (Directory: 13-09197) - Passed
Attachments:	DTST.TXT; EDSA_Error_Log.html; erdtst-7-1-8.txt; erresult-7-1-8.txt; ersample-7-1-8.txt; HZRESULT.TXT; HZSAMPLE.TXT; rstp-7-1-8.txt; SampleLoc-7-1-8.KML

The EDD submission via email from (MaryBeth.Jakubowski@ewma.com) on (3/15/2019 2:35:02 PM) with the subjectline "[EXTERNAL] 024069, 93-01-07-1125"

The following identifiers were in the DTST file:

- Directory: 13-09197
- DESC: 50 Division Ave
- SRPID: 24069
- Submit Date: 3/15/2019

This submission has been issued an SRP Catalog ID: HB238390

Submission status: Passed.

Please do **not** resubmit.

EDD data deliverable must be submitted only once.
- To fulfill Key Document requirements attach only a copy of this email as an appendix to the document.
- Do **not** resubmit any approved EDD deliverable as part of a portal submission.

Email ID: OEM_28057
Sub ID:SUB_72680

MaryBeth Jakubowski

From: DEP SRPEDD <SRPEDD@dep.nj.gov>
Sent: Friday, March 15, 2019 3:19 PM
To: MaryBeth Jakubowski
Subject: 024069, LSR170001, 024069, HB238391, (Directory: 13-09196) - Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; erdtst-7-1-8.txt; erresult-7-1-8.txt; ersample-7-1-8.txt; HZRESULT.TXT; HZSAMPLE.TXT; rstp-7-1-8.txt; SampleLoc-7-1-8.KML

The EDD submission via email from (MaryBeth.Jakubowski@ewma.com) on (3/15/2019 2:33:24 PM) with the subjectline "[EXTERNAL] 024069, 93-01-07-1125"

The following identifiers were in the DTST file:

- Directory: 13-09196
- DESC: 50 Division Ave
- SRPID: 24069
- Submit Date: 3/15/2019

This submission has been issued an SRP Catalog ID: HB238391

Submission status: Passed.

Please do **not** resubmit.

EDD data deliverable must be submitted only once.
- To fulfill Key Document requirements attach only a copy of this email as an appendix to the document.
- Do **not** resubmit any approved EDD deliverable as part of a portal submission.

Email ID: OEM_28058
Sub ID:SUB_72681

MaryBeth Jakubowski

From:	DEP SRPEDD <SRPEDD@dep.nj.gov>
Sent:	Friday, March 15, 2019 3:20 PM
To:	MaryBeth Jakubowski
Subject:	024069, LSR170001, 024069, HB238392, (Directory: 13-09135) - Passed
Attachments:	DTST.TXT; EDSA_Error_Log.html; erdtst-7-1-8.txt; erresult-7-1-8.txt; ersample-7-1-8.txt; HZRESULT.TXT; HZSAMPLE.TXT; rstp-7-1-8.txt; SampleLoc-7-1-8.KML

The EDD submission via email from (MaryBeth.Jakubowski@ewma.com) on (3/15/2019 2:30:36 PM) with the subjectline "[EXTERNAL] 024069, 93-01-07-1125"

The following identifiers were in the DTST file:

- Directory: 13-09135
- DESC: 50 Division Ave
- SRPID: 024069
- Submit Date: 3/15/2019

This submission has been issued an SRP Catalog ID: HB238392

Submission status: Passed.

Please do **not** resubmit.

EDD data deliverable must be submitted only once.
- To fulfill Key Document requirements attach only a copy of this email as an appendix to the document.
- Do **not** resubmit any approved EDD deliverable as part of a portal submission.

Email ID: OEM_28059
Sub ID:SUB_72682