

---

---

**SITE CHARACTERIZATION REPORT FOR THE  
FORMER HUNTS POINT GAS WORKS  
HALLECK STREET SIDEWALK AREA**

**VCA Index No. D2-0003-02-08**

**Site #V00554**

**Bronx, New York**

---

---

*Prepared For:*



**Consolidated Edison Company of New York, Inc.**

**31-01 20<sup>th</sup> Avenue  
Long Island City, NY 11105**

*Prepared By:*

**PARSONS**

200 Cottontail Lane

Somerset, New Jersey, 08873

**JULY 2014**

*“I Shane Blauvelt, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.”*



Shane Blauvelt, P.E.

Project Manager

PARSONS, 301 Plainfield Road, Syracuse, NY

# TABLE OF CONTENTS

	<u>Page</u>
<b>SECTION 1 INTRODUCTION.....</b>	<b>1</b>
1.1 Site Characterization Study Objectives .....	1
1.2 Report Organization .....	1
<b>SECTION 2 SITE BACKGROUND .....</b>	<b>2</b>
2.1 Site Overview .....	2
2.2 Adjoining Property Description .....	2
2.3 Site History .....	2
2.4 Topography, Regional Geology, and Hydrogeology .....	3
2.5 Previous Investigations/Remedial Measures .....	3
<b>SECTION 3 SITE CHARACTERIZATION ACTIVITIES.....</b>	<b>7</b>
3.1 Site Inspection and Preliminary Investigation Activities .....	7
3.2 Utility Clearance.....	7
3.3 Soil Boring Installation.....	8
3.4 Monitoring Well Installation/Development .....	8
3.5 Surveying.....	9
3.6 Groundwater Sampling.....	10
3.7 Management of Investigation-Derived Waste.....	10
3.8 Data Validation and Reporting .....	10
<b>SECTION 4 SITE CHARACTERIZATION RESULTS .....</b>	<b>12</b>
4.1 Site Geology .....	12
4.2 Former Gas Works Structures .....	12
4.3 Site Hydrogeology .....	12

4.4 Soil Sample Results .....12

4.5 Groundwater Sample Results .....14

**SECTION 5 EXPOSURE ASSESSMENT .....16**

**SECTION 6 CONCLUSIONS .....17**

**SECTION 7 REFERENCES.....18**



## **LIST OF TABLES**

Table 1	Sample Summary
Table 2	Summary of Groundwater Elevations
Table 3	Summary of Soil Analytical Data – Detected Compound Summary
Table 4	Summary of Groundwater Analytical Data – Detected Compound Summary

## **LIST OF FIGURES**

Figure 1	Site Vicinity Map
Figure 2	Site Location Map
Figure 3	Sample Location Map
Figure 4	Summary of VOCs and SVOCs in Soil
Figure 5	Summary of Inorganics in Soil
Figure 6	Summary of Groundwater Sample Results
Figure 7	Cross Section A-A'

## **LIST OF APPENDICES**

Appendix A	Soil Boring and Monitoring Well Logs
Appendix B	Groundwater Sampling Logs
Appendix C	Data Usability Summary Report
Appendix D	Hydrocarbon Fingerprint Results

# SECTION 1

## INTRODUCTION

### 1.1 SITE CHARACTERIZATION STUDY OBJECTIVES

Site Characterization of the Halleck Street Sidewalk Area was conducted to (1) assess the potential presence of MGP-related impacts; and (2) to ascertain the potential need for further investigation or remediation. This Site Characterization Report (SCR) addresses only the sidewalk and right of way of Halleck Street (Site), also known as Hunts Point MGP OU-3. The specific objectives of this SCR are to assess whether hazardous substances have been released to the environment and may be present onsite, if they may have migrated offsite, and whether they may have impacted human health or the environment. If no potential impacts are identified, a “no further action” conclusion may be warranted. If potential impacts are verified, additional sampling may be needed to determine the nature and extent of those impacts, or the need for remediation and interim measures to address the impacts. These objectives are consistent with those of the New York State Department of Environmental Conservation’s (NYSDEC) comprehensive remedial investigation process, specifically Chapter 3 of the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010).

### 1.2 REPORT ORGANIZATION

The Site Characterization was conducted by Parsons in October and November 2013. The field investigation activities and results are documented in this report in the following sections and appendices:

- Section 1: Introduction
  - Section 2: Site Background
  - Section 3: Site Characterization Activities
  - Section 4: Site Characterization Results
  - Section 5: Exposure Assessment
  - Section 6: Conclusions
  - Section 7: References
- 
- Appendix A: Soil Boring and Monitoring Well Logs
  - Appendix B: Groundwater Sampling Logs
  - Appendix C: Data Usability Summary Report
  - Appendix D: Hydrocarbon Fingerprint Results

## SECTION 2

### SITE BACKGROUND

#### 2.1 SITE OVERVIEW

The Consolidated Edison Company of New York, Inc. (Con Edison) has entered into a Voluntary Cleanup Agreement with the NYSDEC to investigate, and if necessary, remediate potential impacts at former manufactured gas plant (MGP) properties. One of these facilities is the former Hunts Point Gas Works (VCA Index No. D2-003-02-08; Site #V00554), located in a commercial area of the Bronx, New York (Figure 1). The former Hunts Point Gas Works (Gas Works) was a MGP operated by Con Edison between 1926 and 1962. Currently, the former Hunts Point Gas Works property is owned by the City of New York for use as the Hunts Point Food Distribution Center. The Site includes the street and sidewalk area of Halleck Street and is approximately 2,500 linear feet long, within the east right of way of Halleck Street, also known as Hunts Point MGP OU-3(Figure 2).

Historical research conducted for the former Hunts Point Gas Works is further described in Section 2.5. Results of those research efforts are documented in the *Hunts Point Offsite Manufactured Gas Plant Site History Report, Bronx, New York* (Parsons, 2003). Portions of the former Hunts Point Gas Works were previously investigated and/or remediated.

#### 2.2 ADJOINING PROPERTY DESCRIPTION

The Site is bound by Food Center Drive to the north and a Department of Corrections facility to the south. The Site is bordered to the east by the New Fulton Fish Market Cooperative and Hunts Point Cooperative Market Complex. Commercial buildings border the Site to the west. The properties east of the Site are currently owned by the City of New York and are managed by the New York City Economic Development Corporation.

At the northeastern end of the Site is the Con Edison Hunts Point Gas Compressor Station (HPGCS).

#### 2.3 SITE HISTORY

Historical research was previously conducted and documented in the *Hunts Point Offsite Manufactured Gas Plant Site History Report, Bronx, New York* (Parsons, 2003). Based on this report, the Gas Works was owned and/or operated as an MGP and gas holder station by Con Edison between 1926 and 1962. A large gas holder on the northern portion of the Gas Works was used until 1968, after which it was removed from service and demolished.

The City of New York acquired the majority of the former Hunts Point Gas Work property in the late 1960s. The property was then transitioned into warehouse space for a wholesale food cooperative. One of the former facility roads (Hunts Point Avenue) was removed from service as part of the property redevelopment. Reviews of historical aerial photos reveal that Halleck Street was not modified as part of redevelopment. It was extended to the south sometime after 1980 for use as an access road to the current Department of Corrections facility, located at the southwest portion of the Hunts Point Peninsula.

## 2.4 TOPOGRAPHY, REGIONAL GEOLOGY, AND HYDROGEOLOGY

Hunts Point is a peninsula on the East River and Bronx River that is surrounded by brackish or salty tidal water. The former Hunts Point Gas Works covered an area of approximately 182 acres. Halleck Street is the western boundary of the former site operations and extends for approximately 2,500 linear feet.

The site-specific geology and subsurface site conditions can vary depending on the local site history and the specific activities conducted (construction, excavation, filling, etc.). Prior to significant construction and development, Hunts Point was drained by small creeks, which emptied into the Bronx and East rivers. Most of these creeks are now filled in and are covered by buildings and streets. However, the movement of the shallow groundwater is somewhat influenced by the old channels as well as ancient former stream deposits and the areas of sewer lines and former piping. Groundwater in the area has been reported to occur within the shallow subsurface, and flows in a southerly direction toward the Hunts Point promontory, and the confluence of the Bronx and East Rivers (Hygienetics, 1997b).

During the PSA at the HPGCS, shallow water was encountered within the fill materials on the eastern portion of the property at depths between two and five feet bgs. This shallow water was not encountered at drilling locations on the western half of the Hunts Point Gas Works and appears to be perched water within the fill and sand materials above the clay. A deeper water-bearing zone was encountered during the subsurface investigation within a deeper sand layer at approximately 12 to 15 feet bgs. Boring logs from the Hygienetics report indicate the presence of groundwater ranged from 3 to 9 feet bgs depending on the proximity to the Bronx River (Hygienetics, 1997b and LMS, 1999a and b).

## 2.5 PREVIOUS INVESTIGATIONS/REMEDIAL MEASURES

Three of the previously investigated parcels (A, B, and E) are immediately adjacent to Halleck Street. From 1997 through 1999, Hygienetics Environmental Services Inc. (HES) performed investigations on various parcels of the Gas Works, results of which were summarized in the following report:

- *Phase I Environmental Site Assessment Report of Hunts Point Produce Market Complex Parcels A, B, C, D, and E* (HES, 1997a)
- *Phase II Environmental Investigation Report of Hunts Point Market Complex Parcels A, B, C, D, and E* (HES, 1997b)

In addition, Lawler, Matusky, and Skelly Engineers LLP (LMS) conducted site investigations at selected parcels, results of which were summarized in the following reports:

- *Investigation Report for the Operating Unit Portion of Parcel A* (LMS, 1999a)
- *Investigation Report for the Operating Unit Portion of Parcel E* (LMS, 1999b)
- *Investigation Report for the Operating Unit Portion of Parcel C* (LMS, 1999c)
- *Investigation Report for the Operating Unit Portion of Parcel B* (LMS, 2001)
- *Hunts Point Cooperative Market Redevelopment Plan, Investigation Report for Parcel D, Bronx, New York* (LMS 2005)

- *Hunts Point Cooperative Market Redevelopment Plan, Investigation Report, Operable Unit 3 of Parcel E, Bronx, New York, Final* (HDR/LMS 2007a)
- *Hunts Point Cooperative Market Redevelopment Plan, Investigation Report for Parcel F, Bronx, New York, Final* (HDR/LMS 2007b)

Parsons conducted remedial investigation at the HPCGS, also located immediately adjacent to Halleck Street, in 2003. Results of that investigation were summarized in the following report:

- *Site Investigation Report for the Hunts Point Gas Regulator Station Site Investigation* (Parsons, 2003)

A brief description of the investigation on those Parcels follows here. For detailed sampling locations refer to the listed reports.

### **PARCEL A**

Previous investigations on Parcel A were divided into two operable units: Operable Unit-1 (OU-1) and Operable Unit-2 (OU-2). The OU-1 investigation was completed in 1999 and included five test pits, one soil boring, and two groundwater grab samples from two of the test pits.

Test pits encountered mixed soils, sand, gravel, garbage, structural materials, coal slag, incinerator ash, and coal tar residues. Dense coal tar was detected in one test pit (Test Pit 2). No free phase oil and no purifier material were observed during this investigation. Several polycyclic aromatic hydrocarbon (PAH) compounds exceeded TAGM concentrations in soils collected during this investigation. Metals concentrations were reportedly consistent with urban fill materials but arsenic, barium, beryllium, cadmium, chromium, copper, iron, mercury, nickel, selenium, and zinc exceeded the TAGM Recommended Soil Cleanup Objectives in at least one soil sample. LMS concluded the constituents present should not preclude development of Parcel A. New pavement would cap the materials below (LMS, 1999a).

The OU-2 investigation was completed in 2003 and included the installation of five test pits, three temporary piezometers, three deep soil borings, and thirteen shallow soil borings. Coal tar was observed at OU-2 between 3 and 4 feet bgs. Tar boils were also observed in thicknesses ranging from inches to several feet. Purifier waste, consisting of wood shavings with a blue/green color, was encountered at the ground surface to a maximum depth of five feet bgs within the eastern portion of Parcel A. The recommended remedial action of Parcel A was excavation of coal tar and purifier wastes (LMS, 2003).

### **PARCEL B**

Two investigations were completed at Parcel B, the first in 1998 and the second in 2001. The 1998 investigation included the installation of one monitoring well and nine soil borings. The 2001 investigation consisted of 11 test trenches, 14 temporary piezometers, 1 monitoring well, 9 soil borings, 5 test pits, 4 surface soil samples, and 40 geotechnical borings. The investigations encountered wood shavings attributed to residual purifier materials, incinerator ash, coal tar, coke gravel, and slag throughout Parcel B. Tar boils were also present. Tar, where encountered, was several inches to several feet in thickness. One tar boil, located in the northwestern part of Parcel B, was 62 feet wide, by 68 feet long, by 3 feet deep. A smaller tar boil was located north of the NYDOC parking area.

Exceedances of TAGM values in soil, fill, and groundwater were generally coincident with areas where gross constituents were observed. Select SVOCs and metal were detected above the soil cleanup criteria in the surface soil samples of Parcel B. Total VOCs, BTEX, SVOCs were detected above NYSDEC Class GA Standards. One instance of LNAPL was observed and most groundwater contained either sheens and/or odors.

Since the investigations described above occurred, Parcel B was remediated and developed as the new center of the Fulton Fish Market, a 325,000 square foot building with a concrete slab on-grade construction. The surrounding areas have been developed as a parking lot.

## **PARCEL E**

Previous investigations of Parcel E were conducted in 1997 and 2007. Parcel E is located in the area of the former 15,000,000 cubic foot gasholder, coke filters, and substation structures. Parcel E was subdivided into three Operable Units (OU-1, OU-2 and OU-3). The 1997 investigation included the installation of 5 soil borings and 1 monitoring well. The 2007 investigation included the installation of 21 soil borings, 4 trenches, 5 test pits, 5 piezometers, and a GPR survey. The 2007 investigation also included the collection and analysis of soil, soil gas, and groundwater samples (one from Trench 2 and one from Trench 4B). The investigations of Parcel E encountered historical utilities, piping, and tank structures during test pit excavations and trenching. Some of the tank structures and piping contained oily product and the adjacent soils were impacted by the product, other structures and piping contained water. The test pits and trenches encountered an upper layer of fill material consisting of mixed soils, structural materials, coal slag, C&D debris, garbage, brick, and glass. Tar and oil-saturated soil with strong naphthalene odors was encountered in places. Groundwater in the trenches had sheens and small globules of product.

Benzene, total xylenes, SVOCs and metals were detected above recommended soil cleanup objectives in samples collected from the trenches (Trench 2, 3, and 4) and metals were detected above cleanup objectives in all four trenches. Only cyanide exceeded groundwater standards in one sample. The recommended remedy for Parcel E was excavation of impacted soil and wastewater, installation of an engineered cap, and 1 foot of imported fill for landscaped areas.

## **HPGCS**

A total of 47 soil samples were collected from soil borings drilled at the gas regulator station during the initial site investigation (SI). Four groundwater samples were collected. An additional 11 soil samples, 2 groundwater samples, and 3 tar samples were collected during supplemental sampling.

Three to eleven feet of fill was encountered across this parcel, consisting of sand, gravel, coal ash/cinders, and debris (wood, bricks, glass, etc.). Evidence of non-aqueous phase liquid (NAPL) and tar were observed during this investigation. Metals were detected throughout the HPGCS in soil and groundwater at concentrations exceeding the NYSDEC recommended TAGM soil cleanup objectives and/or Eastern U.S. background levels. The elevated metal concentrations are consistent with the historical industrial use of the HPGCS and surrounding area.

Analytical results indicated that elevated PAH and PCB levels were present in the HPCGS soils. As such, this parcel was remediated in 2003 to:

- Excavate soils with total PAH concentrations greater than 500 ppm.
- Remediate soils visibly impacted with MGP-related tar or free product; and
- Mitigate the potential exposure to soils remaining following the remedial actions

Remedial activities for this parcel are documented in the *Final Engineering Report, Hunts Point Gas Compressor Station Site, Bronx, NY* (Parsons, 2004).

## SECTION 3

### SITE CHARACTERIZATION ACTIVITIES

The following sections describe the field investigation activities conducted as part of the Site Characterization. Parsons personnel mobilized to the Site on October 7, 2013, and the field investigation activities were conducted between October and November 2013 in accordance with the NYSDEC approved *Site Characterization Work Plan* (work plan) (Parsons, 2011). The scope of field investigation activities included the installation of soil borings and monitoring wells. Soil, groundwater, and non-aqueous phase liquid (NAPL) samples were collected for laboratory analysis. During all intrusive activities, a Community Air Monitoring Plan (CAMP) was implemented in accordance with the approved work plan. Sample locations are shown on Figure 3. Table 1 provides a summary of the samples and analyses.

#### 3.1 SITE INSPECTION AND PRELIMINARY INVESTIGATION ACTIVITIES

On October 7, 2013, a Site inspection was conducted to refine the locations of the proposed investigation points. The proposed scope of work was reviewed with Con Edison. Proposed locations and proposed methods were altered in the field, as necessary, based on Site conditions, access, utilities, and safety. The modifications to the sampling locations are further discussed below. Sampling location changes were made in consultation with Con Edison and the NYSDEC.

#### 3.2 UTILITY CLEARANCE

A geophysical survey was conducted to identify potential/possible underground conduits/utilities in the area of the proposed soil boring and monitoring well locations. The geophysical survey was completed by Naeva Geophysics Inc. (Naeva), of Congers, New York prior to start of Site work.

Once the initial geophysical survey was completed, utility clearance keyhole test pits were hand or vacuum excavated at each proposed soil boring and monitoring well location for subsurface utilities. Utility clearance test pits were completed by Aquifer Drilling & Testing, Inc. (ADT) of New Hyde Park, New York in October 2013. The typical utility clearance test pit excavation consisted of saw-cutting and jack-hammering the surface pavement (as necessary), and excavating using a Vactron, an air knife, and hand tools (as necessary) to a minimum depth of 5 feet below ground surface (bgs). During these excavation activities, soils were screened for VOCs using a photoionization detector (PID), their physical characteristics (e.g., soil type, grain size, color, etc.) were described, and notes of any evidence of physical impacts observed (staining, odor, sheen, non-aqueous phase liquid (NAPL), etc.) were recorded. When a utility clearance test pit could not be completed to a depth of 5 ft bgs due to the presence of underground utilities or subsurface obstructions, the location was moved approximately 5 to 10 feet away from the original location and re-excavated. Following completion of the utility clearance test pits, each test pit was backfilled prior to drilling or excavation.



### 3.3 SOIL BORING INSTALLATION

A total of twelve (12) soil borings (MW-1, SB-1 through SB-11) were advanced during the Site Characterization activities to characterize subsurface conditions. The soil borings were completed from October 2013 through November 2013. Advancement of the soil borings was conducted by ADT under the supervision of a Parsons geologist. Soil borings were completed to depths ranging from approximately 15 to 25 feet bgs, depending on observed impacts and refusals. [Figure 3](#) shows the soil boring locations and the corresponding boring logs are presented in [Appendix A](#). Based on Site conditions and observations made during implementation of the Site Characterization activities, the following additions/modifications were made to the work plan:

- The SB-02 location was shifted 3 feet south after the hand-clearance experienced refusal at 2.5 feet bgs. SB-02 hand-clearance experienced refusal again at 2.5 feet bgs and was moved 3 feet north of the original location. The third hand-clearance attempt was successful.

Soil borings were advanced using a track-mounted Geoprobe® Direct Push Drill Rig. Soil samples were collected continuously to the bottom of the boring using 5-foot long, 2.25-inch outer diameter Macro-core® barrels containing a 2-inch acetate lined sampling sleeve. Each sample was screened for the presence of VOCs using a PID. Soil was also logged for physical characteristics of each sample (e.g., soil type, color, texture, moisture content, etc.), along with physical evidence of any impacted material (e.g., oil-like or tar-like NAPL, staining, sheens, odors, etc).

Soil samples were submitted to Chemtech and analyzed for TCL VOCs, TCL SVOCs, cyanide, and TAL metals. A summary of the soil samples collected and the analyses performed is provided in [Table 1](#). Soil samples were collected from selected zones within the borings (as described below) and were submitted for laboratory analysis:

- One sample was collected from the zone with the highest PID readings or visual impacts. If visual impacts or elevated PID readings were not observed, a sample was collected from the upper portion of the boring or directly above the water table (if present).
- One sample was collected below the impacted zone (if present) or near the base of the boring to identify the vertical extent of any impacts at the location.
- Where applicable, NAPL samples were collected and submitted to META Environmental, Inc. of Watertown, MA for hydrocarbon fingerprint analysis.

Upon completion, the boring locations were grouted with Portland cement and bentonite grout using a tremie pipe. Drilling equipment was decontaminated between each boring. Drill cuttings and decontamination water were containerized in 55-gallon steel drums and handled as described in Section 3.7.

### 3.4 MONITORING WELL INSTALLATION/DEVELOPMENT

A total of three (3) monitoring wells (MW-1 through MW-3) were installed during the Site Characterization activities. Monitoring wells were installed in November 2013. The original MW-1 location did not reveal any water or moisture in the soil boring and the soils containing native clays were completely dry. It was proposed by Parsons to move MW-1 approximately 240 feet to the south to be installed at the SB-1 location, which showed moist soils in the 8 to 12 ft

bgs range. As discussed in the e-mail correspondence from November 5, 2013, this proposed change was approved by the New York State DEC since the change still satisfied the objective in the work plan to characterize the groundwater at the edge of Parcel D, along Halleck Street.

The monitoring well borings were advanced to varying depths before later being converted into monitoring wells with the well installation portion of the drilling work. The MW-1 boring was advanced to 15 ft bgs at the initial location. Since no water was produced at the initial location, MW-1 was moved to the SB-1 location, which was advanced to 20 ft bgs. The MW-1 monitoring well was installed to a depth of 17 ft bgs at the SB-1 location. The SB-5/MW-2 boring location was advanced to 15 ft bgs and then converted with the installation of the MW-2 monitoring well, which was installed to 16 ft bgs. The SB-11/MW-3 boring location was advanced to 25 ft bgs and then converted with the installation of the MW-3 monitoring well, which was installed to 17 ft bgs. Monitoring well borings were completed with 4.25-inch outside diameter hollow stem augers and a track-mounted Geoprobe ® drill rig. The monitoring well screens were set at varying depths: MW-1 was screened from 7 to 17 ft bgs, MW-2 was screened from 6 to 16 ft bgs, and MW-3 was screened from 7 to 17 ft bgs with the top of the screen approximately 2 feet above the observed groundwater table.

The monitoring wells were constructed with 2-inch inner diameter, threaded, flush-joint, PVC casing and 10-foot lengths of 0.02-inch slot screen. The annular space around each well screen was backfilled with a No. 2 sand filter pack extending from the bottom of the well to at least 2 feet above the top of the screen. The annular space around the well riser was sealed with at least 2 feet of hydrated bentonite pellets on top of the sand pack. The remainder of the boring was backfilled with cement-bentonite grout to approximately 4 to 5 feet below grade. Monitoring wells MW-1, MW-2, and MW-3 were all finished with a locking, flush-mount box set in concrete.

Monitoring well development was conducted in November 2013 a minimum of 24 hours after installation. Monitoring wells were developed until reasonably free of sediment (less than 50 NTU if possible) or until the pH, temperature, Oxygen Reduction Potential (ORP), and conductivity stabilized. Monitoring well development was monitored approximately every 5 minutes by reviewing water quality indicator measurements. Well development continued until turbidity was less than 50 nephelometric turbidity units (NTUs) for three successive readings or until water quality indicators stabilized, whichever occurred first in each monitoring well. The stabilization criteria were based on water quality indicators of three successive readings within 10%.

Non-disposable drilling equipment was decontaminated between monitoring well locations. Monitoring well drill cuttings, well development water, and decontamination water were containerized in 55-gallon steel drums and handled as described in Section 3.7.

### **3.5 SURVEYING**

At the conclusion of drilling activities, Chazen, a licensed New York state land surveyor, mobilized to the Site and identified the horizontal and vertical location of each new soil boring and monitoring well. Additionally, the survey included locating Site features such as manholes, bollards, hydrants, telephone poles, and more. Two elevation measurements were taken at each well location to identify the top of the PVC casing and the grade elevation. The survey elevations

were measured to an accuracy of 0.01 feet above the National Geodetic Vertical Datum of 1988 (NGVD 1988).

### **3.6 GROUNDWATER SAMPLING**

On November 27, 2013, groundwater samples were collected from the three (3) monitoring wells (MW-1 through MW-3). Prior to collecting samples, the depth to groundwater and thickness of any free product (if present) was measured in the monitoring wells using an electronic oil/water interface probe attached to a measuring tape accurate to 0.01 feet. [Table 2](#) provides a summary of the groundwater level measurements and elevations.

Prior to purging, the headspace within each well was measured with a PID. Each well was purged using a submersible pump and low-flow purging techniques to stabilize the following water quality parameters: temperature, conductivity, pH, dissolved oxygen, conductivity, oxidation reduction potential (ORP), and turbidity; which were measured approximately every five minutes.

Once stabilization was achieved, groundwater samples were collected using a low-flow submersible pump with dedicated tubing. Water quality parameter measurements and observations recorded during sampling activities are documented on the groundwater sampling records provided in [Appendix B](#). Groundwater samples were submitted to Chemtech Laboratories for the following analysis: TCL VOCs, TCL SVOCs, TAL Metals, and total cyanide. Non-dedicated sampling equipment (e.g., oil/water interface probe, submersible pump) was decontaminated between sampling locations. Decontamination water was placed in 55-gallon drums and handled as described in Section 3.7.

### **3.7 MANAGEMENT OF INVESTIGATION-DERIVED WASTE**

Investigation-derived waste (IDW), which included decontamination wash and rinse water, soil cuttings, purge water, debris, and used personal protective equipment (PPE), was containerized in Department of Transportation (DOT)-approved 55-gallon drums. The drums were sealed at the end of each work day and labeled with the date, the well or boring number(s), and the type of waste (e.g., drill cuttings, purge water). Parsons collected representative waste characterization samples of the IDW and coordinated transportation and disposal. Clean Earth of North Jersey, Inc. from Kearny, New Jersey disposed of the IDW at an offsite Con Edison-approved location in accordance with applicable local, state, and federal regulations.

### **3.8 DATA VALIDATION AND REPORTING**

Data validation was performed in accordance with the USEPA Region II standard operating procedures (SOPs) for organic and inorganic data review which were in effect at the time of data validation (USEPA 2006; 2008a; 2008b). These validation guidelines are regional modifications to the National Functional Guidelines for organic and inorganic data review (USEPA, 1999 and 2004). Validation included the following:

- Verification of 100% of all quality control (QC) sample results (both qualitative and quantitative);
- Verification of the identification of 100% of all sample results (both positive hits and non-detects);
- Recalculation of 10% of all investigative sample results; and

- Preparation of a Data Usability Summary Report (DUSR).

The quality of the data has been assessed and is documented in the DUSR provided in [Appendix C](#). In summary, the results of the data usability assessment show that the collected analytical data for soil, groundwater and soil gas are valid for the intended purposes of the RI.

## SECTION 4

### SITE CHARACTERIZATION RESULTS

This section presents the results of the Site Characterization. Analytical results for the soil and groundwater samples collected during the Site Characterization have been summarized in [Tables 3 and 4](#) and on [Figures 4, 5, 6 and 7](#).

#### 4.1 SITE GEOLOGY

The geology encountered in the soil borings during the Site Characterization is summarized in the logs provided in [Appendix A](#). The boring logs show that the upper 5 to 20 feet contained fill materials (generally sand, gravel and cobble with trace amounts of brick, concrete, wood and silt). Deposits of fine to course-grained sand with a clay layer underneath the sand were encountered beneath the fill. Clay was encountered from approximately 1 to 6 feet in thickness. Peat was also encountered at a thickness of less than two feet and a depth of 18 ft bgs in the SB-1 boring. Bedrock was not encountered during the Site Characterization activities. Soil boring logs generated during the Site Characterization were used to develop the representative cross section A to A' of the Site as shown on [Figure 7](#).

#### 4.2 FORMER GAS WORKS STRUCTURES

Remnants of former gas works structures were not encountered within any soil boring or monitoring well installed during the Site Characterization.

#### 4.3 SITE HYDROGEOLOGY

The depth to groundwater was gauged in the three new monitoring wells (MW-1 through MW-3) on November 27, 2013. Groundwater was encountered beneath the Site at 5.6 to 12.05 feet below ground surface and at elevations ranging from 1.56 feet above MSL at MW-3 to 5.09 feet above MSL at MW-2. The groundwater levels and corresponding elevations are summarized in [Table 2](#). Due to the straight line location of the three monitoring wells, neither groundwater contours nor groundwater flow direction could be calculated. However, it is anticipated that the groundwater flow direction is toward the Hunts Point promontory, and the confluence of the Bronx and East Rivers (Hygienetics, 1997b).

#### 4.4 SOIL SAMPLE RESULTS

A total of 30 soil samples, which includes 2 duplicate, 2 matrix spike, and 2 matrix spike duplicate samples, were collected from the soil borings and monitoring well borings as part of the Site Characterization. Soil samples were submitted to Chemtech Laboratories and analyzed for TCL VOCs, TCL SVOCs, TAL metals, and cyanide as described in Section 3. The analytical results of the soil samples are summarized in [Table 3](#) and presented on [Figures 4, 5, and 6](#). The soil sample results have been compared to the Unrestricted Soil Cleanup Objectives (USCOs) provided by NYSDEC in 6 NYCRR Part 375 (NYSDEC, 2006). The USCOs assume there are no imposed restrictions on the use of the Site; however, the Site functions solely as a public sidewalk and right-of-way infrastructure. Therefore, a comparison of soil sample results to the

USCOs is conservative. PID readings, visual observation, and analytical results from the subsurface soil investigation are summarized below.

#### PID Readings/NAPL/Hydrocarbon Fingerprinting Results

PID readings for soil samples collected during soil boring/monitoring well installations ranged from 0.0 to 1,260 ppm above background. The highest PID reading of 1,260 ppm was observed in soil boring SB-4 at a depth interval of 15 to 17 ft bgs. PID readings in the remaining eleven (11) soil borings ranged from 0.0 to 10.7 ppm. Non-aqueous-phase-liquid (NAPL) was observed in one soil boring, SB-4 at approximately 11-18 feet bgs, during the Site Characterization activities.

A sample of soil containing NAPL from soil boring SB-4 was collected and submitted to META Environmental, Inc. of Watertown, MA for forensic hydrocarbon fingerprint analysis. The fingerprinting sample was analyzed by GC/FID (EPA 8100M) for fingerprinting and by GC/MS/SIM (EPA 8270M) for mono- and polycyclic aromatic hydrocarbons (MAHs and PAHs), alkyl PAH homologues and other selected compounds. The laboratory report for this fingerprint analysis is provided in [Appendix D](#). The report indicates that the sample from SB-4 (15-17) contained pyrogenic material and exhibited fluoranthene to pyrene ratios indicative of tars formed from MGPs utilizing carbureted water gas (CWG) processes.

#### VOCs

Sixteen (16) individual VOCs were detected at least once in the soil samples collected during the Site Characterization. Of these, seven (7) (acetone, methylene chloride, benzene, ethylbenzene, toluene, m/p-xylene, and o-xylene) were detected at concentrations exceeding the USCOs. Acetone, which is considered a laboratory contaminant, was detected above its USCO in four soil samples [SB-6 (10-15'), SB-7 (8-10'), SB-8 (15-16'), and SB-9(10-15')]. The remaining six VOCs: methylene chloride, benzene, ethylbenzene, toluene, m/p-xylene, and o-xylene were detected above their respective USCOs only in one soil sample [SB-4 (15-17')].

Total VOC concentrations in all soil samples ranged from non-detect to 1,277 milligrams/kilogram (mg/kg), which was detected in soil sample SB-4 collected at a depth of 15 to 17 ft bgs. Total VOC concentrations in the remaining twenty three (23) samples ranged from non-detect to 0.195 mg/kg.

The vertical extent of VOC impacts was delineated at each soil boring and monitoring well boring sample location with the exception of acetone, which is a common laboratory contaminant.

#### SVOCs

Twenty nine (29) individual SVOCs were detected in soil samples collected during the Site Characterization. Fourteen (14) PAHs [acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, flourene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene] were detected at concentrations exceeding the USCOs in at least one soil sample. Total SVOC concentrations ranged from 0.44 to 4,635 mg/kg, which was detected in soil sample SB-4 at a depth of 15 to 17 ft bgs. Total SVOC concentrations in the remaining twenty three (23) samples ranged from 0.44 to 238 mg/kg. With the exception of SB-4, PAH concentrations detected during the Halleck Street SC were below the 95<sup>th</sup> percentile of background soil concentrations,

detected within urban fill soils, encountered within street excavation soils located within New York City (RETEC, 2007).

SVOCs exceeding USCOs were detected at nine (9) soil borings: SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, and SB-10 and the vertical extent of SVOC impacts was delineated at seven (7) of these soil borings: MW-1, SB-1, SB-3, SB-4, SB-5, SB-8, and SB-11 (i.e. no USCOs were exceeded in the deepest sample collected).

### **Inorganics**

A total of 24 inorganic constituents were detected in soil samples collected during the Site Characterization. Eleven of these exceeded the USCOs (arsenic, barium, cadmium, copper, lead, mercury, nickel, selenium, silver, zinc, and cyanide). The vertical extent of impacts from inorganics was delineated at SB-1.

## **4.5 GROUNDWATER SAMPLE RESULTS**

A total of three (3) groundwater samples and 1 duplicate/MS/MSD were collected during the Site Characterization and analyzed for TCL VOCs, TCL SVOCs, TAL Metals, and total cyanide. Laboratory analytical results for constituents detected in the groundwater samples are summarized in [Table 4](#). For evaluation purposes, analytical results were compared with ambient water quality standards (AWQS) and guidance values contained in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 (NYSDEC, 1998). These standards and guidance values are protective of groundwater quality assuming that groundwater is used as a source of drinking water. That assumption is not applicable to the Site because groundwater is not used now, nor will it be used in the future as a source of drinking water. Accordingly, the use of Class GA standards and guidance values for comparison to Site groundwater data is conservative. The analytical results of the groundwater samples collected from each well are presented on [Figure 6](#). Field measurements and observations as well as analytical results from the groundwater investigation are summarized below.

### **Field Measurements**

Each monitoring well was sampled upon reaching parameter stability and turbidity levels below 50 NTU. During groundwater sampling activities, each monitoring well was monitored for the presence of NAPL. No NAPL or sheens were noted in any of the wells. Visual descriptions and observations made during the groundwater sampling activities are presented on the groundwater sampling records provided in [Appendix B](#).

### **VOCs**

Only one VOC was detected in the groundwater samples collected during the Site Characterization. Methyl tert-butyl ether, which is not a MGP-related compound, was detected in two samples at concentrations below its guidance value. Groundwater analytical results for VOCs are summarized in [Table 4](#).

### **SVOCs**

Only one SVOC was detected in the groundwater samples collected during the Site Characterization. Dimethyl phthalate, which is considered a laboratory contaminant, was detected in one sample at a concentration below its guidance value. Groundwater analytical results for SVOCs are summarized in [Table 4](#).

## **Inorganics**

Seventeen (17) inorganic compounds (aluminum, arsenic, barium, cadmium, calcium, total chromium, iron, lead, magnesium, manganese, nickel, potassium, selenium, sodium, thallium, zinc, and cyanide) were detected at least once in the groundwater samples collected during the Site Characterization. Of these, eight (barium, iron, lead, magnesium, manganese, sodium, thallium, and cyanide) were detected at concentrations exceeding the AWQS and guidance values. Groundwater analytical results for inorganics are summarized in [Table 4](#) and on [Figure 7](#).



## SECTION 5

### EXPOSURE ASSESSMENT

Information collected during the Site Characterization at the former Hunts Point Gas Works Halleck Street Sidewalk Area Site has been used to qualitatively assess potential exposure pathways for the various detected compounds in Site soils and groundwater. The Site is approximately 2,500 linear feet long, located within a commercial district, and includes the street and sidewalk area of Halleck Street.

Analytical results from the soil samples collected during the Site Characterization activities indicate the presence of possible MGP-related contaminants in the soil, primarily at the SB-4 soil boring sample location where MGP-related NAPL was detected. VOCs, PAHs, and inorganic constituents were detected at concentrations above the USCOs at the Site in soil ranging from 5 to 20 ft bgs.

Shallow impacted soils on the Site may be encountered during intrusive maintenance activities (e.g., repair of underground utilities); however, it is unlikely that these materials would be encountered during day-to-day Site operations. It should be noted that the Site soils are covered by asphalt and concrete surfaces.

Groundwater analytical results indicated the presence of inorganic concentrations in the monitoring wells at the Site above the AWQS and guidance values. None of the three monitoring wells (MW-1, MW-2, MW-3) exceeded AWQS for possible MGP-related VOCs or SVOCs.

Groundwater at the Site is currently not used for a potable water source and there are no plans for future use of potable or commercial/industrial groundwater at the Site. Groundwater flow direction could not be determined. The depth to groundwater at the Site is approximately 5.6 to 12 feet bgs. Therefore, there is limited potential for exposure to groundwater during intrusive subsurface activities (e.g., repair of underground utilities) at the Site. Surface water and sediment are not present at the Site.

## SECTION 6

### CONCLUSIONS

The following conclusions have been made based on the results of the Site Characterization presented herein:

- Remnants of the former MGP structures were not encountered during the Site Characterization.
- NAPL was encountered and sampled at only one soil boring location, SB-4. Forensic hydrocarbon fingerprint analysis indicates that the sample contained materials indicative of tars formed from MGP processes. Soil boring SB-4 is located immediately to the west of Parcel A, OU-2, which is being addressed as part of a separate investigation and remediation. Areas to the west of soil boring SB-4 are covered by sidewalks and an active roadway and NAPL extents have been delineated to the north and south.
- Soil samples collected during the Site Characterization activities indicate the presence of possibly MGP-related VOCs, PAHs and inorganic constituents in the Site's soil at a depth ranging from 5 feet to 20 ft bgs. Elevated levels of these constituents were detected primarily at soil boring SB-4, where NAPL was observed.
- Possibly MGP-related VOCs: methylene chloride, benzene, ethylbenzene, toluene, m/p-xylene, and o-xylene were detected above their respective USCOs only in only one soil sample [SB-4 (15-17')].
- With the exception of SB-4, PAH concentrations detected in soil samples were below the 95<sup>th</sup> percentile of background soil concentrations, detected within urban fill soils, encountered within street excavation soils located within New York City (RETEC, 2007).
- Although metals such as lead, mercury, and sodium were found in Site's soil at levels exceeding USCOs, these constituents are commonly found in fill materials in urban settings. It should be noted, based on historical reports, many areas of the Hunts Point peninsula were subject to historical filling, raising, and land grading to reach their existing heights and configuration.
- In comparing exceedances of inorganics of USCOs with Commercial Restricted Use Soil Cleanup Criteria for the Protection of Public Health, only three constituents, barium (at SB-6), copper (at SB-6 and SB-7), and arsenic (at SB-11) exceeded the commercial criteria.
- No VOCs or SVOCs related to former MGP activities were detected in groundwater.
- Although eight inorganic constituents (barium, iron, lead, magnesium, manganese, sodium, thallium, and cyanide) were detected in groundwater at concentrations exceeding the AWQS and guidance values, it should be noted that groundwater at the Site is not used as a source of drinking water.

## SECTION 7

### REFERENCES

- HDR/LMS, 2007b. *Hunts Point Cooperative Market Redevelopment Plan, Investigation Report for Parcel F, Bronx, New York, Final.*
- Hygienetics. 1997a. *Phase I Environmental Site Assessment Report of Hunts Point Produce Market Complex Parcels A, B, C, D, and E.*
- Hygienetics. 1997b. *Phase II Investigation Report of Hunts Point Produce Market Complex Parcels "A, B, C, D, and E", Bronx, New York.* December 2, 1997.
- Hygienetics. 1998. *Phase II Investigation Report of Hunts Point Produce Market Complex Parcels B, Bronx, New York.* February 9, 1998.
- LMS, 1999a. *Investigation Report for the Operating Unit portion of Parcel A, Bronx, NY, Hunts Point Food Distribution Redevelopment Plan, Lawler Matusky & Skelly Engineers LLP, August 1999.*
- LMS, 1999b. *Investigation Report for the Operating Unit Portion of Parcel E, Hunts Point Food Distribution Redevelopment Plan, Lawler Matusky & Skelly Engineers LLP, August 1999.*
- LMS, 1999c. *Investigation Report for the Operating Unit portion of Parcel C, Bronx, NY, Hunts Point Food Distribution Redevelopment Plan, Lawler Matusky & Skelly Engineers LLP, November 1999.*
- LMS, 2001. *Investigation Report for the Operating Unit Portion of Parcel B, Lawler Matusky & Skelly Engineers LLP, May 2001.*
- LMS, 2003. *Hunts Point Food Distribution Center Redevelopment Plan, Investigative Report for the Second Operating Unit of Parcel A, Bronx, New York.*
- LMS, 2005. *Hunts Point Cooperative Market Redevelopment Plan, Investigation Report for Parcel D, Bronx, New York.*
- LMS, 2007a. *Hunts Point Cooperative Market Redevelopment Plan, Investigation Report, Operable Unit 3 of Parcel E, Bronx, New York, Final.*
- NYSDEC, 2010. *DER-10 Technical Guidance for Site Investigation and Remediation: DEC Program Policy.* New York State Department of Environmental Conservation, Albany, New York.
- NYSDOH, 2000. *New York State Department of Health Generic Community Air Monitoring Plan.* Revised June 2000.
- Parsons, 2003. *Site Investigation Report for the Hunts Point Gas Regulator Station Site Investigation, Parsons, January 2003.*
- Parsons, 2003. *Hunts Point Offsite Manufactured Gas Plant Site History Report, Bronx, New York, Parsons, February 2003.*

- Parsons, 2004. *Final Engineering Report, Hunts Point Gas Compressor Station Site, Bronx, NY*, Parsons, April 2004.
- Parsons, 2011. *Site Characterization Work Plan for the Former Hunts Point Gas Works Halleck Street Sidewalk Area, Bronx, New York, New York*, Parsons. June 2011.
- RETEC, 2007. *Characterization of Soil Background PAH and Metal Concentrations, Manhattan, New York*. RETEC, March 2007.
- USEPA, 2006. *Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILM05.3, SOP # HW-2, Rev. 13*. USEPA, Region 2, September 2006.
- USEPA, 2008. *Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8260B, SOP # HW-24, Rev. 2*. USEPA Region 2, August 2008.
- USEPA, 2008. *Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 8270D, SOP # HW-22, Rev. 4*. USEPA Region 2, August 2008.

## TABLES

**Table 1**  
**Sample Summary**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Location	Sample ID	Depth (bgs)	TCL VOCs	TCL SVOCs	TAL Metals	Cyanide	Hydrocarbon Fingerprint
<b>SOIL SAMPLES</b>							
MW-1	MW-1(5-10)-20131104	5-10'	X	X	X	X	
	MW-11(5-10)-20131104*	5-10'	X	X	X	X	
	MW-1(10-15)-20131104	10-15'	X	X	X	X	
SB-1	SB-1(10-12)-20131101	10-12'	X	X	X	X	
	SB-1(15-17)-20131101	15-17'	X	X	X	X	
SB-2	SB-2(5-10)-20131101	5-10'	X	X	X	X	
	SB-2(10-15)-20131101	10-15'	X	X	X	X	
SB-3	SB-3(5-10)-20131101	5-10'	X	X	X	X	
	SB-3(12-14)-20131101	12-14'	X	X	X	X	
SB-4	SB-4(15-17)-20131031	15-17'	X	X	X	X	
	SB-4(19-20)-20131031	19-20'	X	X	X	X	
	SB-4(15-17)NAPL	15-17'					X
SB-5	SB-5(5-10)-20131031	5-10'	X	X	X	X	
	SB-5(10-15)-20131031	10-15'	X	X	X	X	
SB-6	SB-6(8-10)-20131031	8-10'	X	X	X	X	
	SB-6(10-15)-20131031	10-15'	X	X	X	X	
SB-7	SB-7(8-10)-20131031	8-10'	X	X	X	X	
	SB-17(8-10)-20131031*	8-10'	X	X	X	X	
	SB-7(16-18)-20131031	16-18'	X	X	X	X	
SB-8	SB-8(15-16)-20131030	15-16'	X	X	X	X	
	SB-8(17-19)-20131030	17-19'	X	X	X	X	
SB-9	SB-9(5-10)-20131030	5-10'	X	X	X	X	
	SB-9(10-15)-20131030	10-15'	X	X	X	X	
SB-10	SB-10(5-10)-20131030	5-10'	X	X	X	X	
	SB-10(10-12)-20131030	10-12'	X	X	X	X	
SB-11	SB-11(5-10)-20131030	5-10'	X	X	X	X	
	SB-11(15-20)-20131030	15-20'	X	X	X	X	
<b>GROUNDWATER SAMPLES</b>							
MW-1	MW-1-20131127	NA	X	X	X	X	
MW-2	MW-2-20131127	NA	X	X	X	X	
MW-3	MW-3-20131127	NA	X	X	X	X	
	MW-3A-20131127*	NA	X	X	X	X	

X - Indicates sample was analyzed

\* - Indicates a duplicate sample.

**Table 2**  
**Summary of Groundwater Elevations**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

<b>Monitoring Well Number</b>	<b>Total Well Depth (feet)</b>	<b>Top of Casing Elevation (feet AMSL)</b>	<b>Depth to Water (feet)<sup>(1)</sup></b>	<b>Groundwater Elevation (feet AMSL)</b>
MW-1	17.15	15.64	12.05	3.59
MW-2	16.10	14.56	9.47	5.09
MW-3	17.25	7.16	5.60	1.56

Notes:

(1) Measured from top of PVC casing on November 27, 2013

AMSL = Above Mean Sea Level

Elevations are based on the North American Vertical Datum of 1988 (NAVD88).

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	MW-1	Dup of MW-1(5-10)-20131104	MW-1	MW-1
CAS NO.	COMPOUND		Sample ID:	MW-1(5-10)-20131104	MW-11(5-10)-20131104	MW-1(10-15)-20131104	
			Lab Sample Id:	E4340-01	E4340-05	E4340-02	
			Depth:	5 - 10 ft	5 - 10 ft	10 - 15 ft	
			Source:	CTECH	CTECH	CTECH	
			SDG:	E4340	E4340	E4340	
			Matrix:	SOIL	SOIL	SOIL	
			Sampled:	11/4/2013 10:50	11/4/2013 10:40	11/4/2013 11:00	
			Validated:	2/4/2014	2/4/2014	2/4/2014	
			UNITS:				
<b>VOLATILES</b>							
67-64-1	ACETONE	0.05	mg/kg	0.0077 J	ND	0.016 J	
75-15-0	CARBON DISULFIDE	NS	mg/kg	ND	ND	0.0025 J	
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	ND	ND	ND	
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	ND	ND	ND	
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	ND	ND	ND	
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	0.0068 J	ND	ND	
100-42-5	STYRENE	NS	mg/kg	ND	ND	ND	
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	ND	ND	
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND	
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND	
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	ND	ND	
<b>BTEX</b>							
71-43-2	BENZENE	0.06	mg/kg	ND	ND	ND	
100-41-4	ETHYLBENZENE	1	mg/kg	ND	ND	ND	
108-88-3	TOLUENE	0.7	mg/kg	ND	ND	ND	
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	ND	ND	ND	
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	ND	ND	ND	
<b>SEMIVOLATILES</b>							
100-52-7	BENZALDEHYDE	NS	mg/kg	R	R	R	
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND	ND	
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	ND	ND	ND	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	ND	ND	ND	
86-74-8	CARBAZOLE	NS	mg/kg	ND	ND	ND	
132-64-9	DIBENZOFURAN	NS	mg/kg	ND	ND	ND	
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND	ND	
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	0.61	0.8	0.53	
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND	ND	
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND	ND	
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	ND	ND	ND	
108-95-2	PHENOL	0.33	mg/kg	ND	ND	ND	



**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	MW-1	Dup of MW-1(5-10)-20131104	MW-1
CAS NO.	COMPOUND		Sample ID:	MW-1(5-10)-20131104	MW-11(5-10)-20131104	MW-1(10-15)-20131104
			Lab Sample Id:	E4340-01	E4340-05	E4340-02
			Depth:	5 - 10 ft	5 - 10 ft	10 - 15 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4340	E4340	E4340
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	11/4/2013 10:50	11/4/2013 10:40	11/4/2013 11:00
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>PAHs</b>						
83-32-9	ACENAPHTHENE	20	mg/kg	ND	0.0905 J	ND
208-96-8	ACENAPHTHYLENE	100	mg/kg	0.24 J	0.26 J	ND
120-12-7	ANTHRACENE	100	mg/kg	0.19 J	0.24 J	0.12 J
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	0.36 J	0.56	0.34 J
50-32-8	BENZO(A)PYRENE	1	mg/kg	0.44 J	0.63	0.29 J
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	0.48 J	0.72	0.36 J
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	0.3 J	0.42 J	0.19 J
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	0.15 J	0.24 J	0.11 J
218-01-9	CHRYSENE	1	mg/kg	0.4 J	0.63	0.26 J
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	ND	0.11 J	ND
206-44-0	FLUORANTHENE	100	mg/kg	0.65	0.99	0.52
86-73-7	FLUORENE	30	mg/kg	0.1 J	0.12 J	ND
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	0.21 J	0.33 J	0.17 J
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	ND	0.14 J	ND
91-20-3	NAPHTHALENE	12	mg/kg	0.23 J	0.3 J	ND
85-01-8	PHENANTHRENE	100	mg/kg	0.45 J	0.62	0.32 J
129-00-0	PYRENE	100	mg/kg	0.69	1	0.54
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	NS	mg/kg	14900 J	13800 J	13000 J
7440-36-0	ANTIMONY	NS	mg/kg	ND	ND	ND
7440-38-2	ARSENIC	13	mg/kg	10.8	6.94	8.22
7440-39-3	BARIIUM	350	mg/kg	134 J	108 J	80.4 J
7440-41-7	BERYLLIUM	7.2	mg/kg	0.435	0.361	0.52
7440-43-9	CADMIUM	2.5	mg/kg	2.6	2.18	ND
7440-70-2	CALCIUM	NS	mg/kg	4200 J	4200 J	4300 J
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	36.1 J	30.1 J	28.3 J
7440-48-4	COBALT	NS	mg/kg	12.4 J	10.47 J	14.1 J
7440-50-8	COPPER	50	mg/kg	99.3 J	53.8 J	49.1 J
7439-89-6	IRON	NS	mg/kg	36900	33900	34700
7439-92-1	LEAD	63	mg/kg	493	352	390
7439-95-4	MAGNESIUM	NS	mg/kg	5500 J	5000 J	6800 J
7439-96-5	MANGANESE	1600	mg/kg	323 J	270 J	641 J
7439-97-6	MERCURY	0.18	mg/kg	2.33	1.54	0.268
7440-02-0	NICKEL	30	mg/kg	29.4	25.3	29.6
7440-09-7	POTASSIUM	NS	mg/kg	2900 J	2700 J	3300 J
7782-49-2	SELENIUM	3.9	mg/kg	2.56	2.62	2.74
7440-22-4	SILVER	2	mg/kg	1.43	1.18	1.82
7440-23-5	SODIUM	NS	mg/kg	271 J	245 J	607 J
7440-28-0	THALLIUM	NS	mg/kg	ND	ND	ND
7440-62-2	VANADIUM	NS	mg/kg	50.5 J	44.9 J	50.5 J
7440-66-6	ZINC	109	mg/kg	346	329	227
57-12-5	CYANIDE	27	mg/kg	0.649	0.672	0.244 J

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-1	SB-1	SB-2
			Sample ID:	SB-1(10-12)-20131101	SB-1(15-17)-20131101	SB-2(5-10)-20131101
			Lab Sample Id:	E4277-25	E4277-26	E4277-21
			Depth:	10 - 12 ft	15 - 17 ft	5 - 10 ft
		Source:	CTECH	CTECH	CTECH	
		SDG:	E4277	E4277	E4277	
		Matrix:	SOIL	SOIL	SOIL	
		Sampled:	11/1/2013 13:45	11/1/2013 13:55	11/1/2013 9:45	
		Validated:	2/4/2014	2/4/2014	2/4/2014	
CAS NO.	COMPOUND		UNITS:			
	<b>VOLATILES</b>					
67-64-1	ACETONE	0.05	mg/kg	ND	ND	ND
75-15-0	CARBON DISULFIDE	NS	mg/kg	ND	ND	ND
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	ND	ND	ND
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	ND	ND	ND
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	ND	ND	ND
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	0.0037 J	0.0052 J	0.0034 J
100-42-5	STYRENE	NS	mg/kg	ND	ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	ND	ND
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	ND	ND
	<b>BTEX</b>					
71-43-2	BENZENE	0.06	mg/kg	ND	ND	ND
100-41-4	ETHYLBENZENE	1	mg/kg	ND	ND	ND
108-88-3	TOLUENE	0.7	mg/kg	ND	ND	ND
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	ND	ND	ND
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	ND	ND	ND
	<b>SEMIVOLATILES</b>					
100-52-7	BENZALDEHYDE	NS	mg/kg	R	R	R
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND	0.31 J
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	ND	ND	ND
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	ND	ND	ND
86-74-8	CARBAZOLE	NS	mg/kg	ND	ND	0.0928 J
132-64-9	DIBENZOFURAN	NS	mg/kg	ND	ND	ND
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND	ND
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	0.48	0.44 J	0.45
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND	ND
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND	ND
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	ND	ND	ND
108-95-2	PHENOL	0.33	mg/kg	ND	ND	ND

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-1	SB-1	SB-2
CAS NO.	COMPOUND		Sample ID:	SB-1(10-12)-20131101	SB-1(15-17)-20131101	SB-2(5-10)-20131101
			Lab Sample Id:	E4277-25	E4277-26	E4277-21
			Depth:	10 - 12 ft	15 - 17 ft	5 - 10 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	11/1/2013 13:45	11/1/2013 13:55	11/1/2013 9:45
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>PAHs</b>						
83-32-9	ACENAPHTHENE	20	mg/kg	ND	ND	ND
208-96-8	ACENAPHTHYLENE	100	mg/kg	ND	ND	0.19 J
120-12-7	ANTHRACENE	100	mg/kg	ND	ND	0.38 J
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	ND	ND	1.4
50-32-8	BENZO(A)PYRENE	1	mg/kg	ND	ND	1.6
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	ND	ND	1.8
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	ND	ND	1.2
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	ND	ND	0.84
218-01-9	CHRYSENE	1	mg/kg	ND	ND	1.4
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	ND	ND	0.25 J
206-44-0	FLUORANTHENE	100	mg/kg	ND	ND	2
86-73-7	FLUORENE	30	mg/kg	ND	ND	0.13 J
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	ND	ND	0.97
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	ND	ND	ND
91-20-3	NAPHTHALENE	12	mg/kg	ND	ND	0.29 J
85-01-8	PHENANTHRENE	100	mg/kg	ND	ND	1.2
129-00-0	PYRENE	100	mg/kg	ND	ND	1.8
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	NS	mg/kg	12000	5900	3100
7440-36-0	ANTIMONY	NS	mg/kg	ND	ND	2.67 J
7440-38-2	ARSENIC	13	mg/kg	1.48	2.44	10.67
7440-39-3	BARIIUM	350	mg/kg	71	17.6	416
7440-41-7	BERYLLIUM	7.2	mg/kg	0.365	0.16 J	0.087 J
7440-43-9	CADMIUM	2.5	mg/kg	ND	0.372	1.33
7440-70-2	CALCIUM	NS	mg/kg	8100	1300	13500
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	25.1	14.9	30.7
7440-48-4	COBALT	NS	mg/kg	13.2	5.15	6.78
7440-50-8	COPPER	50	mg/kg	21.1	10.34	595
7439-89-6	IRON	NS	mg/kg	22600	10500	31000
7439-92-1	LEAD	63	mg/kg	17.3 J	4.24 J	727 J
7439-95-4	MAGNESIUM	NS	mg/kg	5600	2400	1800
7439-96-5	MANGANESE	1600	mg/kg	440	129	229
7439-97-6	MERCURY	0.18	mg/kg	0.039	ND	0.67
7440-02-0	NICKEL	30	mg/kg	21.6 J	10.84 J	17.8 J
7440-09-7	POTASSIUM	NS	mg/kg	2000 J	1300 J	906 J
7782-49-2	SELENIUM	3.9	mg/kg	1.36	0.556 J	2.96
7440-22-4	SILVER	2	mg/kg	1.3	0.252 J	2.21
7440-23-5	SODIUM	NS	mg/kg	116	762	649
7440-28-0	THALLIUM	NS	mg/kg	ND	ND	ND
7440-62-2	VANADIUM	NS	mg/kg	40	23.2	17.7
7440-66-6	ZINC	109	mg/kg	58.5	26.2	830
57-12-5	CYANIDE	27	mg/kg	0.093 J	ND	1.86

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-2	SB-3	SB-3
CAS NO.	COMPOUND		Sample ID:	SB-2(10-15)-20131101	SB-3(5-10)-20131101	SB-3(12-14)-20131101
			Lab Sample Id:	E4277-22	E4277-23	E4277-24
			Depth:	10 - 15 ft	5 - 10 ft	12 - 14 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	11/1/2013 9:55	11/1/2013 11:15	11/1/2013 11:25
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>VOLATILES</b>						
67-64-1	ACETONE	0.05	mg/kg	ND	ND	ND
75-15-0	CARBON DISULFIDE	NS	mg/kg	ND	ND	ND
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	ND	ND	ND
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	ND	ND	ND
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	ND	ND	ND
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	0.006 J	0.0063 J	0.0069 J
100-42-5	STYRENE	NS	mg/kg	ND	ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	ND	ND
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	ND	ND
<b>BTEX</b>						
71-43-2	BENZENE	0.06	mg/kg	ND	ND	ND
100-41-4	ETHYLBENZENE	1	mg/kg	ND	ND	ND
108-88-3	TOLUENE	0.7	mg/kg	ND	ND	ND
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	ND	ND	ND
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	ND	ND	ND
<b>SEMIVOLATILES</b>						
100-52-7	BENZALDEHYDE	NS	mg/kg	R	R	R
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND	ND
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	ND	ND	ND
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	ND	ND	ND
86-74-8	CARBAZOLE	NS	mg/kg	0.29 J	ND	ND
132-64-9	DIBENZOFURAN	NS	mg/kg	0.35 J	ND	ND
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND	ND
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	0.89	ND	1
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND	ND
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND	ND
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	ND	ND	0.26 J
108-95-2	PHENOL	0.33	mg/kg	ND	ND	ND

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-2	SB-3	SB-3
CAS NO.	COMPOUND		Sample ID:	SB-2(10-15)-20131101	SB-3(5-10)-20131101	SB-3(12-14)-20131101
			Lab Sample Id:	E4277-22	E4277-23	E4277-24
			Depth:	10 - 15 ft	5 - 10 ft	12 - 14 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	11/1/2013 9:55	11/1/2013 11:15	11/1/2013 11:25
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>PAHs</b>						
83-32-9	ACENAPHTHENE	20	mg/kg	0.36 J	ND	ND
208-96-8	ACENAPHTHYLENE	100	mg/kg	0.23 J	ND	ND
120-12-7	ANTHRACENE	100	mg/kg	1.5	0.97 J	ND
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	3.6	6.3	0.31 J
50-32-8	BENZO(A)PYRENE	1	mg/kg	3.2	7.2	0.31 J
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	3.8	8.7	0.37 J
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	1.8	5.1	0.2 J
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	1.1	3.3 J	0.15 J
218-01-9	CHRYSENE	1	mg/kg	2.4	5.9	0.24 J
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	0.69	1.2 J	ND
206-44-0	FLUORANTHENE	100	mg/kg	7	9.9	0.75
86-73-7	FLUORENE	30	mg/kg	0.74	ND	ND
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	1.7	4.5	0.17 J
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	ND	ND	ND
91-20-3	NAPHTHALENE	12	mg/kg	0.2 J	ND	0.17 J
85-01-8	PHENANTHRENE	100	mg/kg	5	4.3	0.25 J
129-00-0	PYRENE	100	mg/kg	5.5	7	0.65
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	NS	mg/kg	11100	3900	2300
7440-36-0	ANTIMONY	NS	mg/kg	ND	9.52 J	15 J
7440-38-2	ARSENIC	13	mg/kg	10.43	27.6	11.8
7440-39-3	BARIUM	350	mg/kg	168	354	369
7440-41-7	BERYLLIUM	7.2	mg/kg	0.426	ND	ND
7440-43-9	CADMIUM	2.5	mg/kg	ND	2.73	1.31
7440-70-2	CALCIUM	NS	mg/kg	5900	38300	7700
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	25.9	24.9	10.95
7440-48-4	COBALT	NS	mg/kg	12.3	9.71	16.8
7440-50-8	COPPER	50	mg/kg	35.3	361	64.9
7439-89-6	IRON	NS	mg/kg	32900	68200	102200
7439-92-1	LEAD	63	mg/kg	168 J	1500 J	595 J
7439-95-4	MAGNESIUM	NS	mg/kg	6100	3800	721
7439-96-5	MANGANESE	1600	mg/kg	695	331	1300
7439-97-6	MERCURY	0.18	mg/kg	0.765	3.85	0.879
7440-02-0	NICKEL	30	mg/kg	26.7 J	35.7 J	12.4 J
7440-09-7	POTASSIUM	NS	mg/kg	2700 J	476 J	597 J
7782-49-2	SELENIUM	3.9	mg/kg	2.22	3.95	1.24 J
7440-22-4	SILVER	2	mg/kg	2.29	4.94	5.72
7440-23-5	SODIUM	NS	mg/kg	1100	658	1500
7440-28-0	THALLIUM	NS	mg/kg	ND	ND	1.07 J
7440-62-2	VANADIUM	NS	mg/kg	43.9	23.4	36.3
7440-66-6	ZINC	109	mg/kg	187	1100	781
57-12-5	CYANIDE	27	mg/kg	0.158 J	2.94	9.8

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-4	SB-4	SB-5
CAS NO.	COMPOUND		Sample ID:	SB-4(15-17)-20131031	SB-4(19-20)-20131031	SB-5(5-10)-20131031
			Lab Sample Id:	E4277-19	E4277-20	E4277-17
			Depth:	15 - 17 ft	19 - 20 ft	5 - 10 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/31/2013 14:15	10/31/2013 14:15	10/31/2013 12:40
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
	<b>VOLATILES</b>					
67-64-1	ACETONE	0.05	mg/kg	ND	0.0408 J	ND
75-15-0	CARBON DISULFIDE	NS	mg/kg	ND	0.008 J	ND
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	29 J	0.0065 J	ND
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	ND	ND	ND
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	0.66 J	ND	ND
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	1.7 J	0.0175	ND
100-42-5	STYRENE	NS	mg/kg	ND	ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	0.0106 J	ND
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	9.9	ND	ND
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	63.2 J	ND	ND
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	0.0025 J	ND
	<b>BTEX</b>					
71-43-2	BENZENE	0.06	mg/kg	85.3	0.0384	ND
100-41-4	ETHYLBENZENE	1	mg/kg	518.3 J	0.0379	ND
108-88-3	TOLUENE	0.7	mg/kg	18.4	ND	ND
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	438.1	0.0146 J	ND
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	112.9	0.016	ND
	<b>SEMIVOLATILES</b>					
100-52-7	BENZALDEHYDE	NS	mg/kg	R	R	R
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND	ND
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	74.5	ND	ND
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	ND	ND	ND
86-74-8	CARBAZOLE	NS	mg/kg	3.6 J	ND	1.4
132-64-9	DIBENZOFURAN	NS	mg/kg	23.2	ND	0.44
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND	ND
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	ND	0.6	0.66
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND	ND
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND	ND
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	ND	ND	ND
108-95-2	PHENOL	0.33	mg/kg	ND	ND	ND

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-4	SB-4	SB-5
CAS NO.	COMPOUND		Sample ID:	SB-4(15-17)-20131031	SB-4(19-20)-20131031	SB-5(5-10)-20131031
			Lab Sample Id:	E4277-19	E4277-20	E4277-17
			Depth:	15 - 17 ft	19 - 20 ft	5 - 10 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/31/2013 14:15	10/31/2013 14:15	10/31/2013 12:40
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>PAHs</b>						
83-32-9	ACENAPHTHENE	20	mg/kg	233.2	ND	ND
208-96-8	ACENAPHTHYLENE	100	mg/kg	33.3	ND	2.4
120-12-7	ANTHRACENE	100	mg/kg	133.6	0.13 J	5.4
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	80.2	0.23 J	8.2
50-32-8	BENZO(A)PYRENE	1	mg/kg	72.2	0.21 J	7.3
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	59.1	0.24 J	7.7
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	29.2	ND	3.1
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	14.1	ND	3.8
218-01-9	CHRYSENE	1	mg/kg	73.4	0.18 J	7.3
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	6.9	ND	0.87
206-44-0	FLUORANTHENE	100	mg/kg	145.4	0.41 J	14.8
86-73-7	FLUORENE	30	mg/kg	165	ND	1.1
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	21.6	ND	3.2
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	766.4	0.16 J	0.3 J
91-20-3	NAPHTHALENE	12	mg/kg	1899.2	0.48 J	1.2
85-01-8	PHENANTHRENE	100	mg/kg	547.3	0.38 J	12.3
129-00-0	PYRENE	100	mg/kg	253.6	0.37 J	13
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	NS	mg/kg	4000	15500	2700
7440-36-0	ANTIMONY	NS	mg/kg	1.74 J	ND	ND
7440-38-2	ARSENIC	13	mg/kg	12	10.52	5.42
7440-39-3	BARIUM	350	mg/kg	78.3	54.5	170
7440-41-7	BERYLLIUM	7.2	mg/kg	0.291 J	0.643	0.204 J
7440-43-9	CADMIUM	2.5	mg/kg	0.3 J	ND	ND
7440-70-2	CALCIUM	NS	mg/kg	2000	3700	3200
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	16.7	35	24.8
7440-48-4	COBALT	NS	mg/kg	9.46	17.2	5.01
7440-50-8	COPPER	50	mg/kg	92.1	28.2	129
7439-89-6	IRON	NS	mg/kg	46400	40100	13000
7439-92-1	LEAD	63	mg/kg	292 J	63.9 J	737 J
7439-95-4	MAGNESIUM	NS	mg/kg	374	8700	1200
7439-96-5	MANGANESE	1600	mg/kg	113	808	49.9
7439-97-6	MERCURY	0.18	mg/kg	3.11	0.461	0.199
7440-02-0	NICKEL	30	mg/kg	21.6 J	37.2 J	11.2 J
7440-09-7	POTASSIUM	NS	mg/kg	597 J	4100 J	584 J
7782-49-2	SELENIUM	3.9	mg/kg	3.67	2.49	1.95
7440-22-4	SILVER	2	mg/kg	2.97	2.81	0.862
7440-23-5	SODIUM	NS	mg/kg	430	3400	299
7440-28-0	THALLIUM	NS	mg/kg	ND	ND	ND
7440-62-2	VANADIUM	NS	mg/kg	19.5	58.1	24.5
7440-66-6	ZINC	109	mg/kg	495	219	72
57-12-5	CYANIDE	27	mg/kg	34.9	1.84	0.79

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-5	SB-6	SB-6
CAS NO.	COMPOUND		Sample ID:	SB-5(10-15)-20131031	SB-6(8-10)-20131031	SB-6(10-15)-20131031
			Lab Sample Id:	E4277-18	E4277-12	E4277-15
			Depth:	10 - 15 ft	8 - 10 ft	10 - 15 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/31/2013 12:50	10/31/2013 10:20	10/31/2013 10:30
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>VOLATILES</b>						
67-64-1	ACETONE	0.05	mg/kg	ND	ND	0.0637
75-15-0	CARBON DISULFIDE	NS	mg/kg	ND	ND	ND
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	ND	ND	ND
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	ND	ND	ND
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	ND	ND	ND
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	0.004 J	0.0078 J	ND
100-42-5	STYRENE	NS	mg/kg	ND	ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	ND	ND
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	ND	ND
<b>BTEX</b>						
71-43-2	BENZENE	0.06	mg/kg	ND	ND	ND
100-41-4	ETHYLBENZENE	1	mg/kg	ND	ND	ND
108-88-3	TOLUENE	0.7	mg/kg	ND	ND	ND
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	ND	ND	ND
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	ND	ND	ND
<b>SEMIVOLATILES</b>						
100-52-7	BENZALDEHYDE	NS	mg/kg	R	R	R
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND	ND
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	ND	ND	ND
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	ND	ND	ND
86-74-8	CARBAZOLE	NS	mg/kg	ND	ND	0.12 J
132-64-9	DIBENZOFURAN	NS	mg/kg	ND	ND	0.15 J
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND	0.15 J
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	0.31 J	0.45	0.68
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND	ND
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND	ND
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	ND	ND	ND
108-95-2	PHENOL	0.33	mg/kg	ND	ND	ND



**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-5	SB-6	SB-6
CAS NO.	COMPOUND		Sample ID:	SB-5(10-15)-20131031	SB-6(8-10)-20131031	SB-6(10-15)-20131031
			Lab Sample Id:	E4277-18	E4277-12	E4277-15
			Depth:	10 - 15 ft	8 - 10 ft	10 - 15 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/31/2013 12:50	10/31/2013 10:20	10/31/2013 10:30
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>PAHs</b>						
83-32-9	ACENAPHTHENE	20	mg/kg	ND	ND	ND
208-96-8	ACENAPHTHYLENE	100	mg/kg	ND	0.34 J	0.5
120-12-7	ANTHRACENE	100	mg/kg	ND	0.32 J	0.67
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	0.13 J	0.75	1.7
50-32-8	BENZO(A)PYRENE	1	mg/kg	0.12 J	0.73	1.5
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	0.15 J	0.79	1.8
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	ND	0.55	0.9
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	ND	0.38 J	0.5
218-01-9	CHRYSENE	1	mg/kg	0.11 J	0.71	1.3
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	ND	0.12 J	0.24 J
206-44-0	FLUORANTHENE	100	mg/kg	0.21 J	1.4	2.8
86-73-7	FLUORENE	30	mg/kg	ND	0.25 J	0.36 J
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	ND	0.45	0.79
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	ND	0.17 J	0.13 J
91-20-3	NAPHTHALENE	12	mg/kg	0.19 J	0.18 J	0.3 J
85-01-8	PHENANTHRENE	100	mg/kg	0.17 J	1.2	2.2
129-00-0	PYRENE	100	mg/kg	0.2 J	1.5	2.6
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	NS	mg/kg	6300	7300	6000
7440-36-0	ANTIMONY	NS	mg/kg	ND	1.36 J	0.971 J
7440-38-2	ARSENIC	13	mg/kg	7.29	15.9	14.3
7440-39-3	BARIUM	350	mg/kg	377	203	420
7440-41-7	BERYLLIUM	7.2	mg/kg	0.474	0.34	0.29 J
7440-43-9	CADMIUM	2.5	mg/kg	0.619	0.404	4.22
7440-70-2	CALCIUM	NS	mg/kg	5000	15000	5100
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	20	62.1	79.2
7440-48-4	COBALT	NS	mg/kg	7.22	7.31	8.37
7440-50-8	COPPER	50	mg/kg	120	79.6	310
7439-89-6	IRON	NS	mg/kg	18200	34300	58900
7439-92-1	LEAD	63	mg/kg	494 J	227 J	870 J
7439-95-4	MAGNESIUM	NS	mg/kg	2300	3200	1800
7439-96-5	MANGANESE	1600	mg/kg	128	165	134
7439-97-6	MERCURY	0.18	mg/kg	0.319	0.39	1.46
7440-02-0	NICKEL	30	mg/kg	18.5 J	55.1 J	59.4 J
7440-09-7	POTASSIUM	NS	mg/kg	1200 J	1100 J	1600 J
7782-49-2	SELENIUM	3.9	mg/kg	1.94	2.5	2.25
7440-22-4	SILVER	2	mg/kg	1.31	2.41	2.36
7440-23-5	SODIUM	NS	mg/kg	1600	1300	371
7440-28-0	THALLIUM	NS	mg/kg	ND	ND	ND
7440-62-2	VANADIUM	NS	mg/kg	29	41.2	43.4
7440-66-6	ZINC	109	mg/kg	259	336	528
57-12-5	CYANIDE	27	mg/kg	4.13	7.32	5.4

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-7	Dup of SB-7(8-10)-20131031	SB-7	SB-7
CAS NO.	COMPOUND		Sample ID:	SB-7(8-10)-20131031	SB-17(8-10)-20131031	SB-7(16-18)-20131031	
			Lab Sample Id:	E4277-10	E4277-16	E4277-11	
			Depth:	8 - 10 ft	8 - 10 ft	16 - 18 ft	
			Source:	CTECH	CTECH	CTECH	
			SDG:	E4277	E4277	E4277	
			Matrix:	SOIL	SOIL	SOIL	
			Sampled:	10/31/2013 8:35	10/31/2013 8:45	10/31/2013 10:20	
			Validated:	2/4/2014	2/4/2014	2/4/2014	
			UNITS:				
<b>VOLATILES</b>							
67-64-1	ACETONE	0.05	mg/kg	0.0337	0.0616	0.0391 J	
75-15-0	CARBON DISULFIDE	NS	mg/kg	ND	ND	0.0019 J	
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	ND	ND	ND	
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	ND	ND	ND	
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	ND	ND	ND	
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	0.0044 J	ND	0.006 J	
100-42-5	STYRENE	NS	mg/kg	ND	ND	ND	
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	ND	ND	
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND	
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND	
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	ND	ND	
<b>BTEX</b>							
71-43-2	BENZENE	0.06	mg/kg	ND	ND	ND	
100-41-4	ETHYLBENZENE	1	mg/kg	ND	ND	ND	
108-88-3	TOLUENE	0.7	mg/kg	ND	ND	ND	
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	ND	ND	ND	
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	ND	ND	ND	
<b>SEMIVOLATILES</b>							
100-52-7	BENZALDEHYDE	NS	mg/kg	R	R	R	
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND	ND	
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	ND	ND	ND	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	ND	0.11 J	ND	
86-74-8	CARBAZOLE	NS	mg/kg	0.0801 J	0.13 J	ND	
132-64-9	DIBENZOFURAN	NS	mg/kg	ND	0.0847 J	ND	
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND	ND	
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	0.24 J	0.61 J	0.43 J	
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND	ND	
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND	ND	
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	ND	ND	0.22 J	
108-95-2	PHENOL	0.33	mg/kg	ND	ND	ND	

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-7	Dup of SB-7(8-10)-20131031	SB-7
CAS NO.	COMPOUND		Sample ID:	SB-7(8-10)-20131031	SB-7(8-10)-20131031	SB-7(16-18)-20131031
			Lab Sample ID:	E4277-10	E4277-16	E4277-11
			Depth:	8 - 10 ft	8 - 10 ft	16 - 18 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/31/2013 8:35	10/31/2013 8:45	10/31/2013 10:20
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
	<b>PAHs</b>					
83-32-9	ACENAPHTHENE	20	mg/kg	ND	ND	ND
208-96-8	ACENAPHTHYLENE	100	mg/kg	0.23 J	0.32 J	ND
120-12-7	ANTHRACENE	100	mg/kg	0.33 J	0.58 J	0.2 J
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	1.2	1.7	0.99
50-32-8	BENZO(A)PYRENE	1	mg/kg	1.2	1.9	0.89
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	1.5	2	1.1
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	0.89 J	1.6 J	0.53
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	0.36 J	0.9 J	0.39 J
218-01-9	CHRYSENE	1	mg/kg	1.2	1.5	0.89
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	0.21 J	0.25 J	0.14 J
206-44-0	FLUORANTHENE	100	mg/kg	1.7	2.7	1.3
86-73-7	FLUORENE	30	mg/kg	0.15 J	0.25 J	ND
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	0.83	1.3	0.49
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	0.0869 J	0.15 J	ND
91-20-3	NAPHTHALENE	12	mg/kg	0.13 J	0.27 J	ND
85-01-8	PHENANTHRENE	100	mg/kg	1	1.7	0.51
129-00-0	PYRENE	100	mg/kg	1.8	2.8	1.4
	<b>INORGANICS</b>					
7429-90-5	ALUMINUM	NS	mg/kg	6800	7500	2400
7440-36-0	ANTIMONY	NS	mg/kg	0.76 J	1.11 J	3.91 J
7440-38-2	ARSENIC	13	mg/kg	4.36	5.98	12.8
7440-39-3	BARIUM	350	mg/kg	195	201	240
7440-41-7	BERYLLIUM	7.2	mg/kg	0.317	0.36	0.097 J
7440-43-9	CADMIUM	2.5	mg/kg	2.36	2.58	5.08
7440-70-2	CALCIUM	NS	mg/kg	6400	9800	14200
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	20.6	21.9	17
7440-48-4	COBALT	NS	mg/kg	9.55	10.81	6.35
7440-50-8	COPPER	50	mg/kg	120	126	414
7439-89-6	IRON	NS	mg/kg	22400	28900	52900
7439-92-1	LEAD	63	mg/kg	301 J	283 J	719 J
7439-95-4	MAGNESIUM	NS	mg/kg	2800	5100	1400
7439-96-5	MANGANESE	1600	mg/kg	237	342	336
7439-97-6	MERCURY	0.18	mg/kg	0.361	0.454	1.12
7440-02-0	NICKEL	30	mg/kg	29.4 J	37.5 J	212 J
7440-09-7	POTASSIUM	NS	mg/kg	2300 J	2400 J	419 J
7782-49-2	SELENIUM	3.9	mg/kg	1.1	0.856 J	2.62
7440-22-4	SILVER	2	mg/kg	0.661	0.99	1.86
7440-23-5	SODIUM	NS	mg/kg	242	245	684
7440-28-0	THALLIUM	NS	mg/kg	ND	ND	ND
7440-62-2	VANADIUM	NS	mg/kg	41.8	50.9	20.8
7440-66-6	ZINC	109	mg/kg	315	372	719
57-12-5	CYANIDE	27	mg/kg	ND	1.3 J	1.78

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-8	SB-8	SB-9
CAS NO.	COMPOUND		Sample ID:	SB-8(15-16)-20131030	SB-8(17-19)-20131030	SB-9(5-10)-20131030
			Lab Sample Id:	E4277-07	E4277-08	E4277-05
			Depth:	15 - 16 ft	17 - 19 ft	5 - 10 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/30/2013 14:55	10/30/2013 14:55	10/30/2013 13:30
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>VOLATILES</b>						
67-64-1	ACETONE	0.05	mg/kg	0.0525	ND	0.0236 J
75-15-0	CARBON DISULFIDE	NS	mg/kg	0.0023 J	0.003 J	0.0035 J
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	0.0025 J	ND	ND
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	0.0061 J	ND	0.0054 J
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	ND	ND	0.0014 J
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	0.0025 J	0.0022 J	0.0035 J
100-42-5	STYRENE	NS	mg/kg	0.0037 J	ND	0.0094
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	ND	ND
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	ND	ND
<b>BTEX</b>						
71-43-2	BENZENE	0.06	mg/kg	0.0137	ND	0.0097
100-41-4	ETHYLBENZENE	1	mg/kg	0.0045 J	ND	0.004 J
108-88-3	TOLUENE	0.7	mg/kg	0.0093	ND	0.0213
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	0.0266	ND	0.0768
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	0.013	ND	0.0367
<b>SEMIVOLATILES</b>						
100-52-7	BENZALDEHYDE	NS	mg/kg	R	R	R
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND	ND
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	0.63	ND	0.4
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	ND	ND	ND
86-74-8	CARBAZOLE	NS	mg/kg	0.97 J	ND	4.1 J
132-64-9	DIBENZOFURAN	NS	mg/kg	1.4	ND	2.2
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND	ND
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	0.72	0.61	0.41
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND	0.11 J
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND	0.12 J
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	0.14 J	ND	0.33 J
108-95-2	PHENOL	0.33	mg/kg	0.14 J	ND	0.24 J

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-8	SB-8	SB-9
CAS NO.	COMPOUND		Sample ID:	SB-8(15-16)-20131030	SB-8(17-19)-20131030	SB-9(5-10)-20131030
			Lab Sample Id:	E4277-07	E4277-08	E4277-05
			Depth:	15 - 16 ft	17 - 19 ft	5 - 10 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/30/2013 14:55	10/30/2013 14:55	10/30/2013 13:30
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>PAHs</b>						
83-32-9	ACENAPHTHENE	20	mg/kg	0.7	ND	0.47
208-96-8	ACENAPHTHYLENE	100	mg/kg	2.5	ND	3.6
120-12-7	ANTHRACENE	100	mg/kg	3.9	ND	13.5
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	4.9	ND	22
50-32-8	BENZO(A)PYRENE	1	mg/kg	3.1	ND	12.3
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	2.7 J	ND	15.3 J
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	1.9 J	ND	6.8 J
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	1.9	ND	4.9
218-01-9	CHRYSENE	1	mg/kg	2.7	ND	12.9
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	0.76	ND	3
206-44-0	FLUORANTHENE	100	mg/kg	9.2	ND	46.7
86-73-7	FLUORENE	30	mg/kg	3.2	ND	5.2
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	1.6	ND	7.3
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	1.9	ND	1.3
91-20-3	NAPHTHALENE	12	mg/kg	6.5	ND	2.3
85-01-8	PHENANTHRENE	100	mg/kg	15	ND	39
129-00-0	PYRENE	100	mg/kg	9.7	ND	33.2
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	NS	mg/kg	4100	2000	7600
7440-36-0	ANTIMONY	NS	mg/kg	4.33 J	3.23 J	1.19 J
7440-38-2	ARSENIC	13	mg/kg	13.4	5.75	7.18
7440-39-3	BARIUM	350	mg/kg	275	157	136
7440-41-7	BERYLLIUM	7.2	mg/kg	0.226 J	0.183 J	0.296 J
7440-43-9	CADMIUM	2.5	mg/kg	1.42	ND	0.405
7440-70-2	CALCIUM	NS	mg/kg	6500	18900	21500
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	20.5	19.1	21.9
7440-48-4	COBALT	NS	mg/kg	7.93	7.17	20.9
7440-50-8	COPPER	50	mg/kg	390	63.6	72
7439-89-6	IRON	NS	mg/kg	24000	21000	32600
7439-92-1	LEAD	63	mg/kg	884 J	261 J	232 J
7439-95-4	MAGNESIUM	NS	mg/kg	2500	3900	7600
7439-96-5	MANGANESE	1600	mg/kg	200	185	237
7439-97-6	MERCURY	0.18	mg/kg	2.18	0.131	0.826
7440-02-0	NICKEL	30	mg/kg	96.2 J	20.1 J	43.2 J
7440-09-7	POTASSIUM	NS	mg/kg	799 J	410 J	2200 J
7782-49-2	SELENIUM	3.9	mg/kg	2.35	1.66	2.53
7440-22-4	SILVER	2	mg/kg	2.08	1.58	1.87
7440-23-5	SODIUM	NS	mg/kg	387	460	279
7440-28-0	THALLIUM	NS	mg/kg	ND	ND	ND
7440-62-2	VANADIUM	NS	mg/kg	24.1	23.1	88
7440-66-6	ZINC	109	mg/kg	3200	197	210
57-12-5	CYANIDE	27	mg/kg	2	0.109 J	5.36

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-9	SB-10	SB-10
CAS NO.	COMPOUND		Sample ID:	SB-9(10-15)-20131030	SB-10(5-10)-20131030	SB-10(10-12)-20131030
			Lab Sample Id:	E4277-06	E4277-03	E4277-04
			Depth:	10 - 15 ft	5 - 10 ft	10 - 12 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/30/2013 13:40	10/30/2013 11:20	10/30/2013 11:30
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
<b>VOLATILES</b>						
67-64-1	ACETONE	0.05	mg/kg	0.0814	0.0476	0.018 J
75-15-0	CARBON DISULFIDE	NS	mg/kg	0.0017 J	0.002 J	0.0026 J
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	ND	ND	ND
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	ND	ND	ND
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	ND	ND	ND
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	0.0028 J	0.0048 J	0.005 J
100-42-5	STYRENE	NS	mg/kg	ND	ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	ND	ND
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	ND	ND	ND
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	ND	ND
<b>BTEX</b>						
71-43-2	BENZENE	0.06	mg/kg	ND	ND	ND
100-41-4	ETHYLBENZENE	1	mg/kg	ND	ND	ND
108-88-3	TOLUENE	0.7	mg/kg	ND	ND	ND
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	ND	ND	ND
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	ND	ND	ND
<b>SEMIVOLATILES</b>						
100-52-7	BENZALDEHYDE	NS	mg/kg	R	0.0993 J	R
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND	ND
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	ND	ND	ND
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	ND	ND	ND
86-74-8	CARBAZOLE	NS	mg/kg	0.11 J	ND	0.13 J
132-64-9	DIBENZOFURAN	NS	mg/kg	ND	ND	0.13 J
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND	ND
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	0.59	0.59	0.54
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND	ND
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND	ND
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	ND	ND	ND
108-95-2	PHENOL	0.33	mg/kg	ND	ND	ND

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-9	SB-10	SB-10
CAS NO.	COMPOUND		Sample ID:	SB-9(10-15)-20131030	SB-10(5-10)-20131030	SB-10(10-12)-20131030
			Lab Sample Id:	E4277-06	E4277-03	E4277-04
			Depth:	10 - 15 ft	5 - 10 ft	10 - 12 ft
			Source:	CTECH	CTECH	CTECH
			SDG:	E4277	E4277	E4277
			Matrix:	SOIL	SOIL	SOIL
			Sampled:	10/30/2013 13:40	10/30/2013 11:20	10/30/2013 11:30
			Validated:	2/4/2014	2/4/2014	2/4/2014
			UNITS:			
	<b>PAHs</b>					
83-32-9	ACENAPHTHENE	20	mg/kg	ND	ND	0.21 J
208-96-8	ACENAPHTHYLENE	100	mg/kg	0.24 J	0.17 J	0.0942 J
120-12-7	ANTHRACENE	100	mg/kg	0.48	0.16 J	0.92
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	0.95	0.38 J	1.4
50-32-8	BENZO(A)PYRENE	1	mg/kg	0.77	0.31 J	0.92
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	0.86 J	0.31 J	1.1 J
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	0.76 J	0.21 J	0.5 J
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	0.29 J	0.18 J	0.5
218-01-9	CHRYSENE	1	mg/kg	0.75	0.36 J	1.1
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	0.19 J	ND	0.24 J
206-44-0	FLUORANTHENE	100	mg/kg	1.7	0.57	2.6
86-73-7	FLUORENE	30	mg/kg	0.23 J	ND	0.31 J
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	0.55	0.18 J	0.49
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	ND	0.12 J	ND
91-20-3	NAPHTHALENE	12	mg/kg	0.2 J	0.15 J	ND
85-01-8	PHENANTHRENE	100	mg/kg	1.2	0.47	2.1
129-00-0	PYRENE	100	mg/kg	1.7	0.65	2.2
	<b>INORGANICS</b>					
7429-90-5	ALUMINUM	NS	mg/kg	5200	5400	7800
7440-36-0	ANTIMONY	NS	mg/kg	1.15 J	0.996 J	0.732 J
7440-38-2	ARSENIC	13	mg/kg	6.71	7.74	4.85
7440-39-3	BARIIUM	350	mg/kg	99.1	137	135
7440-41-7	BERYLLIUM	7.2	mg/kg	0.323	0.308 J	0.25 J
7440-43-9	CADMIUM	2.5	mg/kg	0.862	ND	0.14 J
7440-70-2	CALCIUM	NS	mg/kg	49900	5000	22900
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	17.2	13.1	19.3
7440-48-4	COBALT	NS	mg/kg	9.24	5.8	9.87
7440-50-8	COPPER	50	mg/kg	70.3	84.1	56.3
7439-89-6	IRON	NS	mg/kg	17000	17700	22200
7439-92-1	LEAD	63	mg/kg	161 J	231 J	173 J
7439-95-4	MAGNESIUM	NS	mg/kg	18200	2500	7600
7439-96-5	MANGANESE	1600	mg/kg	176	483	229
7439-97-6	MERCURY	0.18	mg/kg	0.573	0.373	0.303
7440-02-0	NICKEL	30	mg/kg	32.3 J	18.6 J	26.5 J
7440-09-7	POTASSIUM	NS	mg/kg	912 J	801 J	1800 J
7782-49-2	SELENIUM	3.9	mg/kg	1.27	2.09	1.2
7440-22-4	SILVER	2	mg/kg	1.41	1.3	1.34
7440-23-5	SODIUM	NS	mg/kg	258	481	623
7440-28-0	THALLIUM	NS	mg/kg	ND	ND	ND
7440-62-2	VANADIUM	NS	mg/kg	25.6	32.5	34.8
7440-66-6	ZINC	109	mg/kg	246	233	151
57-12-5	CYANIDE	27	mg/kg	0.104 J	0.609	0.522

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-11	SB-11
CAS NO.	COMPOUND		Sample ID:	SB-11(5-10)-20131030	SB-11(15-20)-20131030
			Lab Sample Id:	E4277-01	E4277-02
			Depth:	5 - 10 ft	15 - 20 ft
			Source:	CTECH	CTECH
			SDG:	E4277	E4277
			Matrix:	SOIL	SOIL
			Sampled:	10/30/2013 9:45	10/30/2013 10:05
			Validated:	2/4/2014	2/4/2014
			UNITS:		
	VOLATILES				
67-64-1	ACETONE	0.05	mg/kg	0.0295 J	0.0362 J
75-15-0	CARBON DISULFIDE	NS	mg/kg	ND	0.0036 J
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	mg/kg	ND	ND
108-10-1	METHYL ISOBUTYL KETONE	NS	mg/kg	ND	ND
108-87-2	METHYLCYCLOHEXANE	NS	mg/kg	ND	ND
75-09-2	METHYLENE CHLORIDE	0.05	mg/kg	0.0042 J	0.0056 J
100-42-5	STYRENE	NS	mg/kg	ND	ND
1634-04-4	TERT-BUTYL METHYL ETHER	0.93	mg/kg	ND	ND
87-61-6	1,2,3-TRICHLOROBENZENE	NS	mg/kg	ND	ND
120-82-1	1,2,4-TRICHLOROBENZENE	NS	mg/kg	ND	ND
106-46-7	1,4-DICHLOROBENZENE	1.8	mg/kg	ND	ND
	BTEX				
71-43-2	BENZENE	0.06	mg/kg	ND	ND
100-41-4	ETHYLBENZENE	1	mg/kg	ND	ND
108-88-3	TOLUENE	0.7	mg/kg	ND	ND
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg	ND	ND
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg	ND	ND
	SEMIVOLATILES				
100-52-7	BENZALDEHYDE	NS	mg/kg	R	R
85-68-7	BENZYL BUTYL PHTHALATE	NS	mg/kg	ND	ND
92-52-4	BIPHENYL (DIPHENYL)	NS	mg/kg	ND	ND
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	mg/kg	0.0886 J	ND
86-74-8	CARBAZOLE	NS	mg/kg	ND	ND
132-64-9	DIBENZOFURAN	NS	mg/kg	ND	ND
84-66-2	DIETHYL PHTHALATE	NS	mg/kg	ND	ND
131-11-3	DIMETHYL PHTHALATE	NS	mg/kg	0.65	0.72
105-67-9	2,4-DIMETHYLPHENOL	NS	mg/kg	ND	ND
95-48-7	2-METHYLPHENOL (O-CRESOL)	0.33	mg/kg	ND	ND
MEPH3MEPH4	3- AND 4- METHYLPHENOL (TOTAL)	0.33	mg/kg	ND	ND
108-95-2	PHENOL	0.33	mg/kg	ND	ND



**Table 3**  
**Summary of Soil Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

Con Ed - Halleck Street Validated Soil Analytical Data Detected Compound Summary		Unrestricted Use Soil Cleanup Objectives	Location ID:	SB-11	SB-11
CAS NO.	COMPOUND		Sample ID:	SB-11(5-10)-20131030	SB-11(15-20)-20131030
			Lab Sample Id:	E4277-01	E4277-02
			Depth:	5 - 10 ft	15 - 20 ft
			Source:	CTECH	CTECH
			SDG:	E4277	E4277
			Matrix:	SOIL	SOIL
			Sampled:	10/30/2013 9:45	10/30/2013 10:05
			Validated:	2/4/2014	2/4/2014
			UNITS:		
	<b>PAHs</b>				
83-32-9	ACENAPHTHENE	20	mg/kg	ND	ND
208-96-8	ACENAPHTHYLENE	100	mg/kg	ND	ND
120-12-7	ANTHRACENE	100	mg/kg	0.14 J	0.12 J
56-55-3	BENZO(A)ANTHRACENE	1	mg/kg	0.72	0.24 J
50-32-8	BENZO(A)PYRENE	1	mg/kg	0.66	0.19 J
205-99-2	BENZO(B)FLUORANTHENE	1	mg/kg	0.76 J	0.18 J
191-24-2	BENZO(G,H,I)PERYLENE	100	mg/kg	0.48 J	0.12 J
207-08-9	BENZO(K)FLUORANTHENE	0.8	mg/kg	0.3 J	ND
218-01-9	CHRYSENE	1	mg/kg	0.5	0.17 J
53-70-3	DIBENZ(A,H)ANTHRACENE	0.33	mg/kg	0.19 J	ND
206-44-0	FLUORANTHENE	100	mg/kg	0.82	0.37 J
86-73-7	FLUORENE	30	mg/kg	ND	ND
193-39-5	INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg	0.42	0.0999 J
91-57-6	2-METHYLNAPHTHALENE	NS	mg/kg	ND	ND
91-20-3	NAPHTHALENE	12	mg/kg	ND	ND
85-01-8	PHENANTHRENE	100	mg/kg	0.41	0.38 J
129-00-0	PYRENE	100	mg/kg	0.83	0.42 J
	<b>INORGANICS</b>				
7429-90-5	ALUMINUM	NS	mg/kg	4300	9600
7440-36-0	ANTIMONY	NS	mg/kg	1.5 J	2.26 J
7440-38-2	ARSENIC	13	mg/kg	5.77	20.8
7440-39-3	BARIUM	350	mg/kg	237	207
7440-41-7	BERYLLIUM	7.2	mg/kg	0.348	0.271 J
7440-43-9	CADMIUM	2.5	mg/kg	ND	0.839
7440-70-2	CALCIUM	NS	mg/kg	4300	7300
7440-47-3	CHROMIUM, TOTAL	NS	mg/kg	12.6	34
7440-48-4	COBALT	NS	mg/kg	11.7	13.9
7440-50-8	COPPER	50	mg/kg	346	130
7439-89-6	IRON	NS	mg/kg	22300	77700
7439-92-1	LEAD	63	mg/kg	884 J	338 J
7439-95-4	MAGNESIUM	NS	mg/kg	1300	4700
7439-96-5	MANGANESE	1600	mg/kg	128	564
7439-97-6	MERCURY	0.18	mg/kg	0.709	2.67
7440-02-0	NICKEL	30	mg/kg	14.5 J	33.2 J
7440-09-7	POTASSIUM	NS	mg/kg	871 J	2300 J
7782-49-2	SELENIUM	3.9	mg/kg	1.97	3.85
7440-22-4	SILVER	2	mg/kg	1.64	5.38
7440-23-5	SODIUM	NS	mg/kg	508	2300
7440-28-0	THALLIUM	NS	mg/kg	ND	ND
7440-62-2	VANADIUM	NS	mg/kg	19.4	41
7440-66-6	ZINC	109	mg/kg	112	288
57-12-5	CYANIDE	27	mg/kg	8.79	9.13

Notes:

- (1) 6NYCRR Part 375 Environmental Remediation Programs (December 14, 2006)
- (2) NS indicates no cleanup objective or background level is available.
- (3) ND indicates compound was not detected.
- (4) J indicates an estimated concentration.
- (5) Shaded values exceed 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives.
- (6) NA indicates compound was not analyzed.
- (7) R indicates rejected value

**Table 4**  
**Summary of Groundwater Analytical Data**  
**Former Hunts Point Gas Works**  
**Consolidated Edison Company of New York**  
**Site Characterization - October and November 2013**

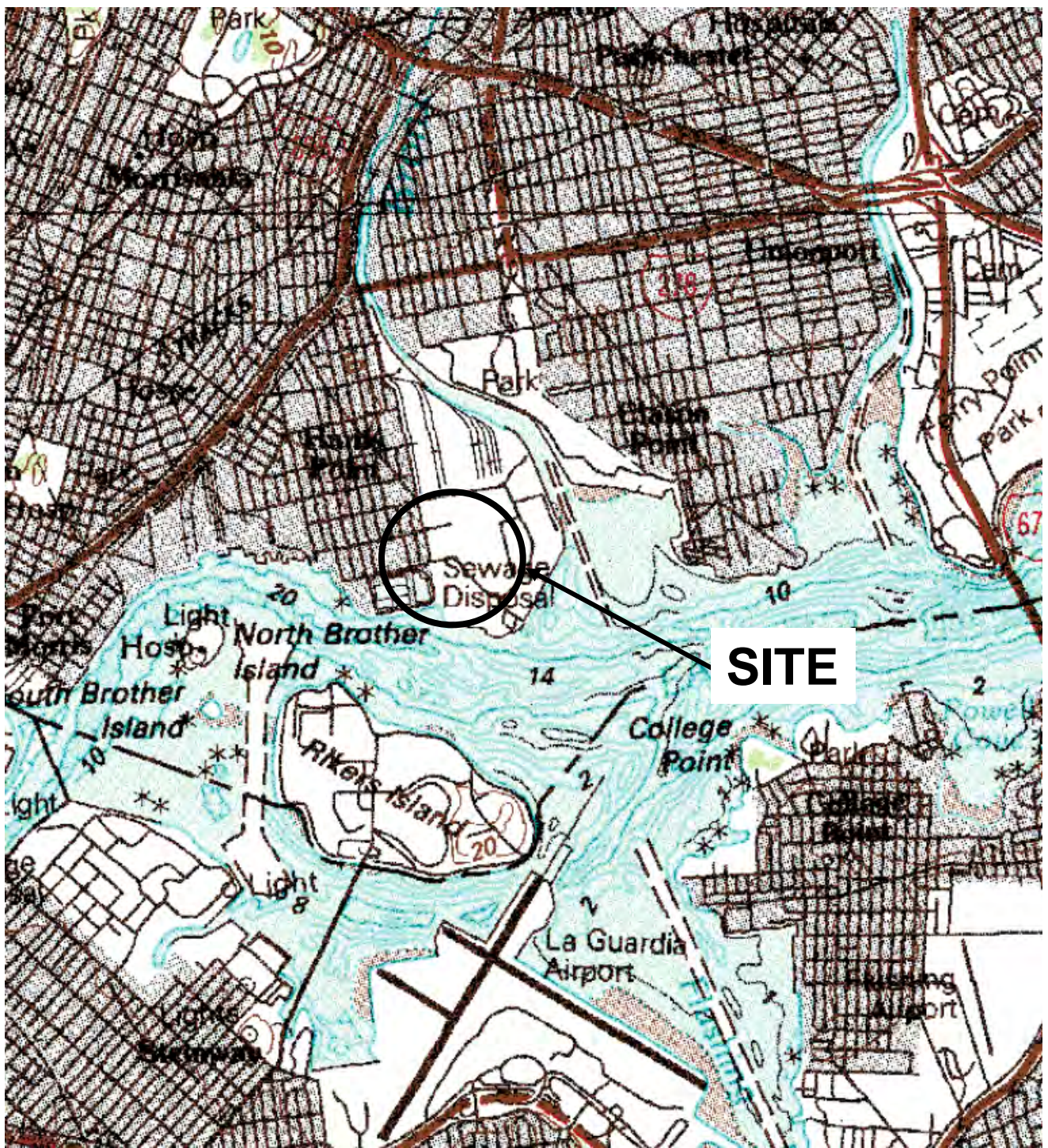
Con Ed - Halleck Street Validated Groundwater Analytical Data Detected Compound Summary		NYSDEC Ambient Water Quality Standards/Guidance Criteria	Location ID:	MW-1	MW-2	MW-3	Dup of MW-3-20131127
CAS NO.	COMPOUND		Sample ID:	MW-1-20131127	MW-2-20131127	MW-3-20131127	MW-3 MW-3A-20131127
			Lab Sample Id:	E4638-06	E4638-05	E4638-01	E4638-04
			Depth:	-	-	-	-
			Source:	CTECH	CTECH	CTECH	CTECH
			SDG:	E4638	E4638	E4638	E4638
			Matrix:	WATER	WATER	WATER	WATER
			Sampled:	11/27/2013 12:20	11/27/2013 10:50	11/27/2013 8:45	11/27/2013 9:10
			Validated:	2/4/2014	2/4/2014	2/4/2014	2/4/2014
			UNITS:				
	<b>VOLATILES</b>						
1634-04-4	TERT-BUTYL METHYL ETHER	10 (G)	ug/l	ND	6.8	ND	0.56 J
	<b>SEMIVOLATILES</b>						
131-11-3	DIMETHYL PHTHALATE	50 (G)	ug/l	ND	ND	ND	8.6 J
	<b>INORGANICS</b>						
7429-90-5	ALUMINUM	NS	ug/l	920	252	48.2 J	53.6
7440-38-2	ARSENIC	25	ug/l	ND	8.81 J	ND	ND
7440-39-3	BARIUM	1000	ug/l	319	84.3	1400	1400
7440-43-9	CADMIUM	5	ug/l	0.833 J	ND	ND	ND
7440-70-2	CALCIUM	NS	ug/l	148200	142000	175900	170000
7440-47-3	CHROMIUM, TOTAL	50	ug/l	34.8	1.97 J	ND	5.67 J
7439-89-6	IRON	300	ug/l	50500	28100	33500	31300
7439-92-1	LEAD	25	ug/l	3.31 J	25.3	6.64	6.74
7439-95-4	MAGNESIUM	35000 (G)	ug/l	34600	18400	58900	59400
7439-96-5	MANGANESE	300	ug/l	2900	472	719	698
7440-02-0	NICKEL	100	ug/l	13.4 J	ND	ND	ND
7440-09-7	POTASSIUM	NS	ug/l	24100	18500	41000	40000
7782-49-2	SELENIUM	10	ug/l	5.78 J	ND	ND	ND
7440-23-5	SODIUM	20000	ug/l	610600	186000	635100	628900
7440-28-0	THALLIUM	0.5 (G)	ug/l	3.56 J	ND	ND	ND
7440-66-6	ZINC	2000 (G)	ug/l	11.2 J	12.3 J	ND	ND
57-12-5	CYANIDE	200	ug/l	12	28	687	681

**Notes:**

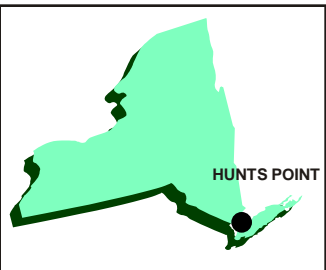
- Indicates concentration exceeds standard or guidance value.
- (G) Indicates guidance value.
- NS No standard or guidance value available.
- ND Indicates compound was not detected.
- J Indicates an estimated concentration.
- ug/L Micrograms per liter

## FIGURES





**SITE**



New York  
Quadrangle

LATITUDE: N40° 48' 33"  
LONGITUDE: W73° 52' 48"



SOURCE: DeLORME 3-D  
TOPOQUAD PROGRAM

**FIGURE 1**

CONSOLIDATED EDISON COMPANY OF NEW YORK  
FORMER HUNTS POINT GAS WORKS  
HALLECK STREET SIDEWALK AREA  
BRONX, NEW YORK

**SITE VICINITY MAP**

**PARSONS**

200 COTTONTAIL ROAD, SOMERSET NJ 08873 PHONE: (732) 537-3500





**Legend**

- Approximate Site Boundary (Hunts Point MGP OU-3)
- Approximate Boundary of Former Gas Works Facility
- Approximate Boundary of Parcels

**FIGURE 2**

CONSOLIDATED EDISON COMPANY OF NEW YORK  
 FORMER HUNTS POINT GAS WORKS  
 HALLECK STREET SIDEWALK AREA  
 BRONX, NEW YORK

**Site Location Map**





**PARSONS**

200 COTTONTAIL LANE SOUTH, SOMERSET, NJ 08873 PHONE: (732) 537-3500





LEGEND:

-  SITE BOUNDARY
-  MGP FACILITIES
-  SOIL BORING LOCATION
-  MONITORING WELL LOCATION



SCALE: 1"=200'

FIGURE 3

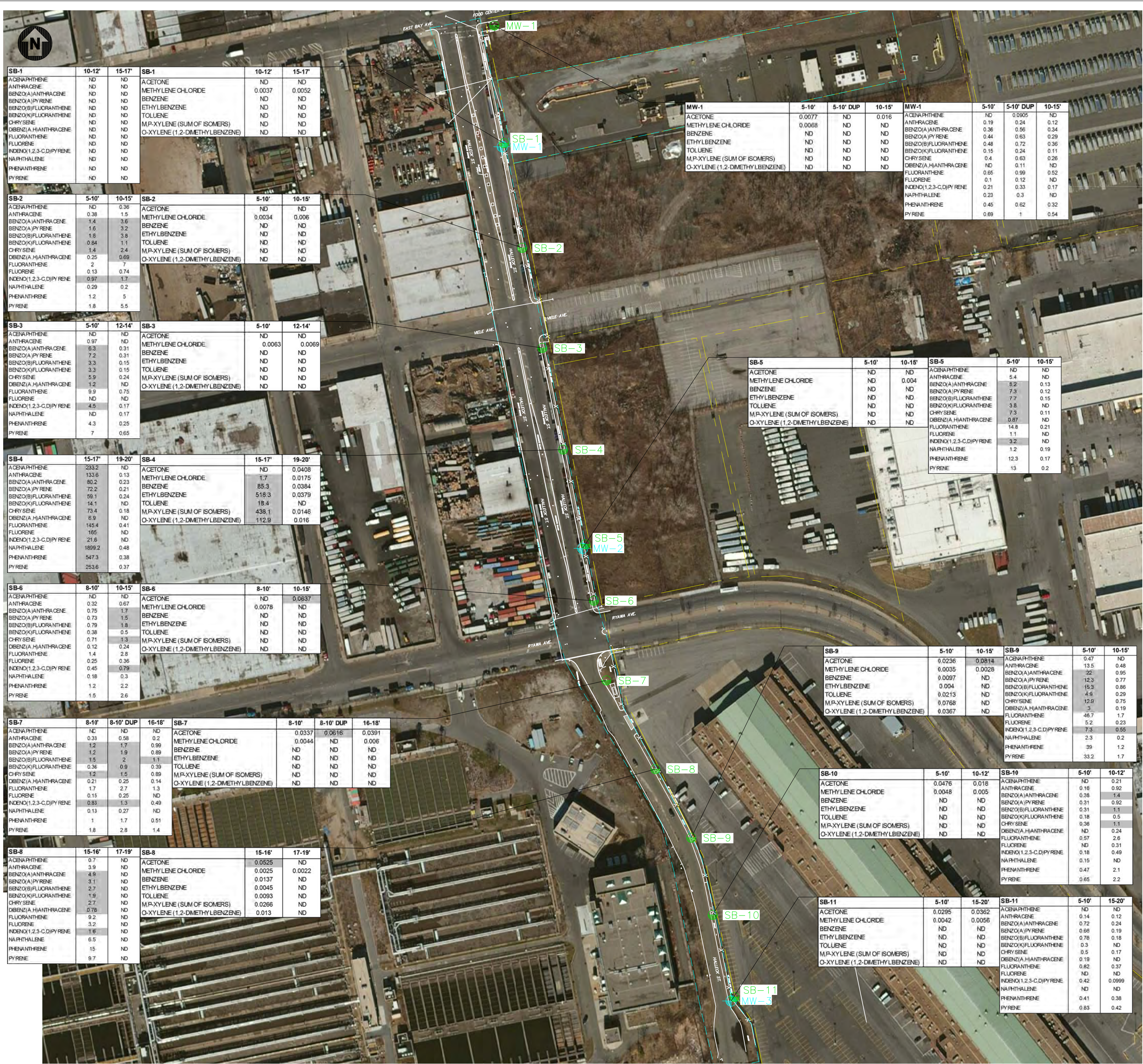
CONSOLIDATED EDISON  
HALLECK STREET SCR  
NEW YORK, NEW YORK

SAMPLE LOCATION MAP

**PARSONS**

200 COTTONTAIL LANE SOUTH, SOMERSET, N.J. 08873, PHONE: 732-537-3500





LEGEND:  
 - - - - - SITE BOUNDARY  
 - - - - - MGP FACILITIES  
 ● SOIL BORING LOCATION  
 ⊕ MONITORING WELL LOCATION

- NOTES:
1. ALL CONCENTRATIONS ARE IN PARTS PER BILLION (mg/Kg)
  2. SHADED VALUES EXCEED 6 NYCRR PART 375 UNRESTRICTED SOIL USE CLEANUP OBJECTIVES
  3. COMPOUNDS THAT EXCEEDED 6 NYCRR PART 375 UNRESTRICTED SOIL USE CLEANUP OBJECTIVES IN ONE OR MORE SOIL SAMPLES ARE SHOWN.

Unrestricted Use Soil Cleanup Objectives Exceedence Criteria		
COMPOUND	VALUE	UNITS
ACETONE	0.05	mg/kg
METHYLENE CHLORIDE	0.05	mg/kg
BENZENE	0.06	mg/kg
ETHYLBENZENE	1.00	mg/kg
TOLUENE	0.70	mg/kg
M,P-XYLENE (SUM OF ISOMERS)	0.26	mg/kg
O-XYLENE (1,2-DIMETHYLBENZENE)	0.26	mg/kg

Unrestricted Use Soil Cleanup Objectives Exceedence Criteria		
COMPOUND	VALUE	UNITS
ACENAPHTHENE	20	mg/kg
ANTHRACENE	100	mg/kg
BENZ(O,A)ANTHRACENE	1	mg/kg
BENZ(O,A)PYRENE	1	mg/kg
BENZ(O,B)FLUORANTHENE	1	mg/kg
BENZ(O,K)FLUORANTHENE	0.8	mg/kg
CHRYSENE	1	mg/kg
DIBENZ(A,H)ANTHRACENE	0.33	mg/kg
FLUORANTHENE	100	mg/kg
FLUORENE	30	mg/kg
INDENO(1,2,3-C,D)PYRENE	0.5	mg/kg
NAPHTHALENE	12	mg/kg
PHENANTHRENE	100	mg/kg
PYRENE	100	mg/kg

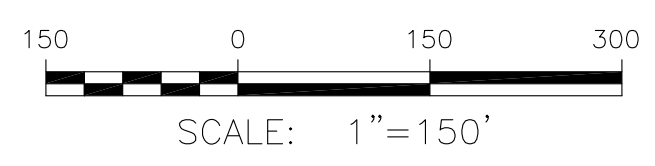
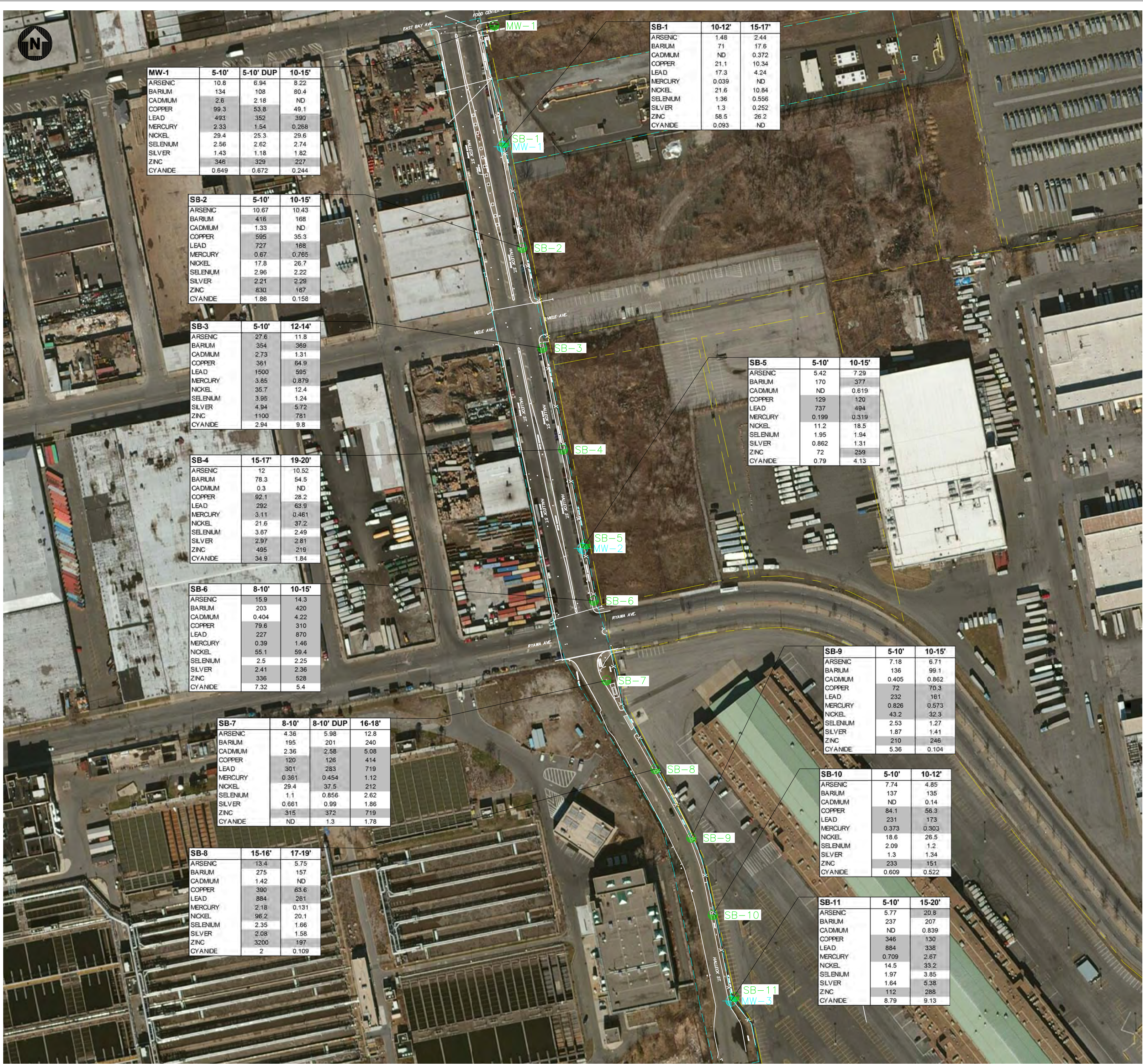


FIGURE 4  
 CONSOLIDATED EDISON  
 HALLECK STREET SCR  
 NEW YORK, NY  
 SUMMARY OF VOCs AND SVOCs  
 IN SOIL





MW-1	5-10'	5-10' DUP	10-15'
ARSENIC	10.8	6.94	8.22
BARIUM	134	108	80.4
CADMIUM	2.6	2.18	ND
COPPER	99.3	53.8	49.1
LEAD	493	352	390
MERCURY	2.33	1.54	0.268
NICKEL	29.4	25.3	29.6
SELENIUM	2.56	2.62	2.74
SILVER	1.43	1.18	1.82
ZINC	346	329	227
CYANIDE	0.849	0.672	0.244

SB-2	5-10'	10-15'
ARSENIC	10.67	10.43
BARIUM	416	168
CADMIUM	1.33	ND
COPPER	595	35.3
LEAD	727	168
MERCURY	0.67	0.785
NICKEL	17.8	26.7
SELENIUM	2.96	2.22
SILVER	2.21	2.29
ZINC	830	187
CYANIDE	1.86	0.158

SB-3	5-10'	12-14'
ARSENIC	27.6	11.8
BARIUM	354	369
CADMIUM	2.73	1.31
COPPER	361	64.9
LEAD	1500	595
MERCURY	3.85	0.879
NICKEL	35.7	12.4
SELENIUM	3.95	1.24
SILVER	4.94	5.72
ZINC	1100	781
CYANIDE	2.94	9.8

SB-4	15-17'	19-20'
ARSENIC	12	10.52
BARIUM	78.3	54.5
CADMIUM	0.3	ND
COPPER	92.1	28.2
LEAD	292	63.9
MERCURY	3.11	0.461
NICKEL	21.6	37.2
SELENIUM	3.67	2.49
SILVER	2.97	2.81
ZINC	495	219
CYANIDE	34.9	1.84

SB-6	8-10'	10-15'
ARSENIC	15.9	14.3
BARIUM	203	420
CADMIUM	0.404	4.22
COPPER	79.6	310
LEAD	227	870
MERCURY	0.39	1.46
NICKEL	55.1	59.4
SELENIUM	2.5	2.25
SILVER	2.41	2.36
ZINC	336	528
CYANIDE	7.32	5.4

SB-7	8-10'	8-10' DUP	16-18'
ARSENIC	4.38	5.98	12.8
BARIUM	195	201	240
CADMIUM	2.36	2.58	5.08
COPPER	120	126	414
LEAD	301	283	719
MERCURY	0.361	0.454	1.12
NICKEL	29.4	37.5	212
SELENIUM	1.1	0.856	2.62
SILVER	0.661	0.99	1.86
ZINC	315	372	719
CYANIDE	ND	1.3	1.78

SB-8	15-16'	17-19'
ARSENIC	13.4	5.75
BARIUM	275	157
CADMIUM	1.42	ND
COPPER	380	63.6
LEAD	884	261
MERCURY	2.18	0.131
NICKEL	96.2	20.1
SELENIUM	2.35	1.66
SILVER	2.08	1.58
ZINC	3200	197
CYANIDE	2	0.109

SB-1	10-12'	15-17'
ARSENIC	1.48	2.44
BARIUM	71	17.6
CADMIUM	ND	0.372
COPPER	21.1	10.34
LEAD	17.3	4.24
MERCURY	0.039	ND
NICKEL	21.6	10.84
SELENIUM	1.36	0.556
SILVER	1.3	0.252
ZINC	58.5	26.2
CYANIDE	0.093	ND

SB-5	5-10'	10-15'
ARSENIC	5.42	7.29
BARIUM	170	377
CADMIUM	ND	0.619
COPPER	129	120
LEAD	737	494
MERCURY	0.199	0.319
NICKEL	11.2	18.5
SELENIUM	1.95	1.94
SILVER	0.862	1.31
ZINC	72	259
CYANIDE	0.79	4.13

SB-9	5-10'	10-15'
ARSENIC	7.18	6.71
BARIUM	136	99.1
CADMIUM	0.405	0.862
COPPER	72	70.3
LEAD	232	161
MERCURY	0.826	0.573
NICKEL	43.2	32.3
SELENIUM	2.53	1.27
SILVER	1.87	1.41
ZINC	210	246
CYANIDE	5.36	0.104

SB-10	5-10'	10-12'
ARSENIC	7.74	4.85
BARIUM	137	135
CADMIUM	ND	0.14
COPPER	84.1	56.3
LEAD	231	173
MERCURY	0.373	0.303
NICKEL	18.6	26.5
SELENIUM	2.09	1.2
SILVER	1.3	1.34
ZINC	233	351
CYANIDE	0.609	0.522

SB-11	5-10'	15-20'
ARSENIC	5.77	20.8
BARIUM	237	207
CADMIUM	ND	0.839
COPPER	346	130
LEAD	884	338
MERCURY	0.709	2.67
NICKEL	14.5	33.2
SELENIUM	1.97	3.85
SILVER	1.64	5.38
ZINC	112	288
CYANIDE	8.79	9.13

- LEGEND:
- SITE BOUNDARY
  - MGP FACILITIES
  - SOIL BORING LOCATION
  - MONITORING WELL LOCATION

- NOTES:
1. ALL CONCENTRATIONS ARE IN PARTS PER BILLION (mg/Kg)
  2. SHADED VALUES EXCEED 6 NYCRR PART 375 UNRESTRICTED SOIL USE CLEANUP OBJECTIVES
  3. COMPOUNDS THAT EXCEEDED 6 NYCRR PART 375 UNRESTRICTED SOIL USE CLEANUP OBJECTIVES IN ONE OR MORE SOIL SAMPLES SHOWN.

Unrestricted Use Soil Cleanup Objectives Exceedence Criteria		
COMPOUND	VALUE	UNITS
ARSENIC	13	mg/kg
BARIUM	350	mg/kg
CADMIUM	2.5	mg/kg
COPPER	50	mg/kg
LEAD	63	mg/kg
MERCURY	0.18	mg/kg
NICKEL	30	mg/kg
SELENIUM	3.9	mg/kg
SILVER	2	mg/kg
ZINC	109	mg/kg
CYANIDE	27	mg/kg

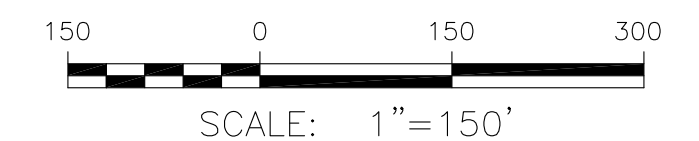


FIGURE 5  
 CONSOLIDATED EDISON  
 HALLECK STREET SCR  
 NEW YORK, NY  
 SUMMARY OF INORGANICS  
 IN SOIL  
**PARSONS**  
 200 COTTONTAIL LANE, SOMERSET, N.J. 08873, PHONE: 732-537-3500





COMPOUND	MW-1
INORGANICS	
BARIIUM	319
IRON	50500
LEAD	3.31
MAGNESIUM	34600
MANGANESE	2900
SODIUM	610600
THALLIUM	3.56
CYANIDE	12

COMPOUND	MW-2
INORGANICS	
BARIIUM	84.3
IRON	28100
LEAD	25.3
MAGNESIUM	18400
MANGANESE	472
SODIUM	186000
THALLIUM	ND
CYANIDE	28

COMPOUND	MW-3	MW-3 DUP
INORGANICS		
BARIIUM	1400	1400
IRON	33500	31300
LEAD	6.64	6.74
MAGNESIUM	58900	59400
MANGANESE	719	698
SODIUM	635100	628900
THALLIUM	ND	ND
CYANIDE	687	681

LEGEND:

- SITE BOUNDARY
- MGP FACILITIES
- SOIL BORING LOCATION
- MONITORING WELL LOCATION

NOTES:

1. ALL CONCENTRATIONS ARE IN PARTS PER BILLION (ug/l).
2. SHADED VALUES EXCEED NYSDEC AMBIENT WATER QUALITY CLEANUP OBJECTIVES.
3. COMPOUNDS THAT EXCEED NYSDEC AMBIENT WATER QUALITY CLEANUP OBJECTIVES IN ONE OR MORE GROUNDWATER SAMPLES ARE SHOWN.
4. NO VOCs OR SVOCs EXCEEDED NYSDEC AMBIENT WATER QUALITY CLEANUP OBJECTIVES.

NYSDEC Ambient Water Quality Standards/Guidance Criteria		
COMPCUND	VALUE	UNITS
BARIIUM	1000	ug/l
IRON	300	ug/l
LEAD	25	ug/l
MAGNESIUM	35000	ug/l
MANGANESE	300	ug/l
SODIUM	20000	ug/l
THALLIUM	0.5	ug/l
CYANIDE	200	ug/l

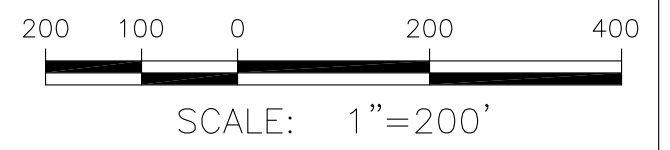


FIGURE 6

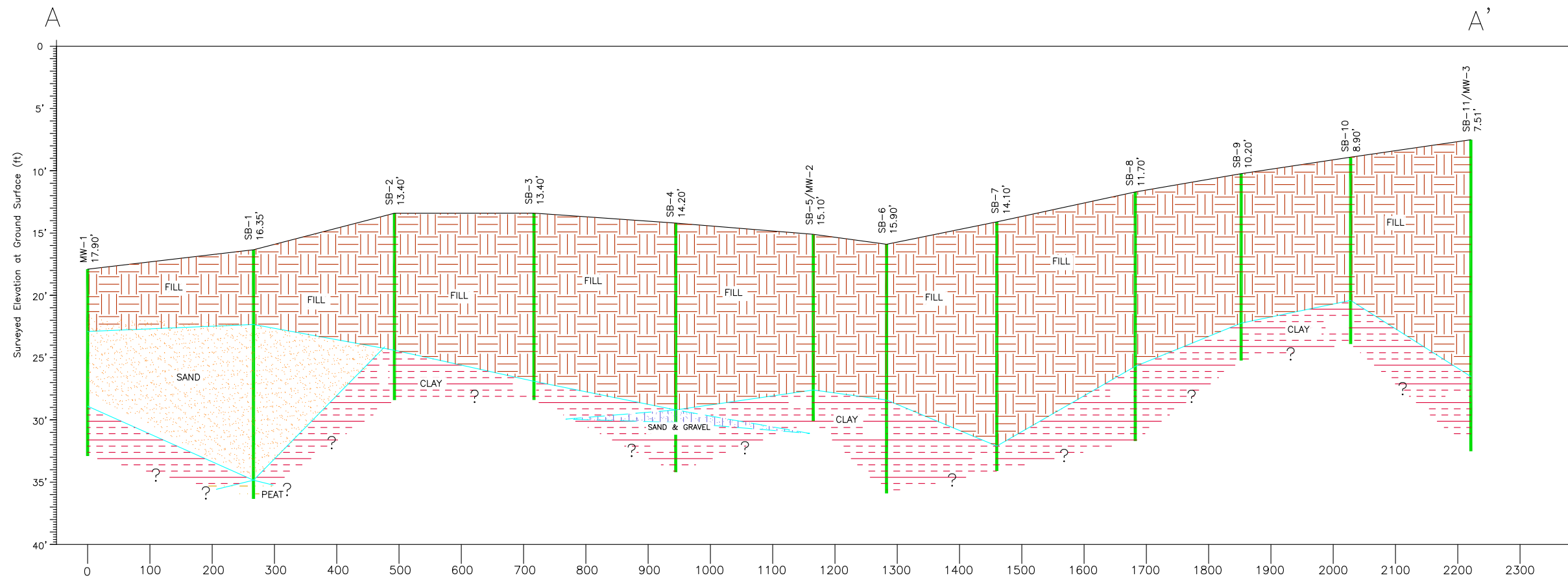
CONSOLIDATED EDISON  
HALLECK STREET SCR  
NEW YORK, NEW YORK

SUMMARY OF GROUNDWATER  
SAMPLE RESULTS



200 COTTONTAIL LANE SOUTH, SOMERSET, N.J. 08873, PHONE: 732-537-3500





SCALE: 1"=10'



SCALE: 1"=200'

LEGEND:







-  FILL
-  SAND
-  SAND AND GRAVEL
-  CLAY
-  PEAT
-  SOIL BORING

FIGURE 7

CONSOLIDATED EDISON OF NEW YORK  
HALLECK STREET SCR

CROSS SECTION A-A'

**PARSONS**

200 COTTONTAIL LANE SOUTH, SOMERSET, N.J. 08873, PHONE: 732-537-3500

**APPENDIX A**

**SOIL BORING AND MONITORING WELL LOGS**

					PARSONS DRILLING RECORD		BORING/WELL ID: MW-1 Sheet 1 of 1	
<b>Contractor:</b> Aquifer Drilling & Testing					<b>PROJECT NAME:</b> Consolidated Edison - Former Hunts Point Gas Works <b>PROJECT NUMBER:</b> 446110-04000		<b>Location Description:</b>	
<b>Driller:</b> Chris Iodici							Eastern corner of Halleck Street/Food Center Drive	
<b>Inspector:</b> Zohar Lavy							Intersection	
<b>Rig Type:</b> Track Mounted Geoprobe Rig								
GROUNDWATER OBSERVATIONS					<b>Weather:</b> Partly cloudy, high 40s  <b>Date/Time Start:</b> 11-4-2013/1050  <b>Date/Time Finish:</b> 11-4-2013/1110		<b>Location Plan</b>	
Water Level	DTW	DTW					See Site Plan	
		12.15						
Date		11-8-2013						
Time		0830						
Meas. From		Top of Casing						
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
+2								
+1								
0					0-6" Grass, roots, organics			
1					6"-5' Dry, dark brown, fine to medium SAND, some cobble, weathered rock boulders			
2		Vac-tron	NA	0.0				
3								
4								
5	MW-1 (5-10)	Geoprobe	55	0.0	0-20" Dry, dark brown/grey, medium SAND, trace medium angular to sub-angular gravel			
6					20-30" Moist, grey/dark orange, fine SAND and Silt, some clay, trace sub-angular gravel			
7								
8								
9								
10	MW-1 (10-15)	Geoprobe	65	0.0	0-10" Moist, grey/dark orange, fine SAND and Silt, some clay, trace sub-angular gravel			
11					10-40" Wet, grey, CLAY			
12								
13								
14								
15								
<b>SAMPLING METHOD</b>					Hand cleared to 5' bgs. Geoprobe drilled from 5' to 15' bgs.			
SS = SPLIT SPOON					Duplicate sample collected from MW-1 (5-10) interval.			
A = AUGER CUTTINGS								
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								

PARSONS DRILLING RECORD					BORING/WELL ID: SB-1/MW-1 Sheet 1 of 1			
Contractor: Aquifer Drilling & Testing			PROJECT NAME: Consolidated Edison - Former Hunts Point Gas Works		Location Description:			
Driller: Andrea Babel					Halleck St on west side of property boundary			
Inspector: Zohar Lavy					PROJECT NUMBER: 448468.01000			
Rig Type: Track Mounted Geoprobe Rig			GROUNDWATER OBSERVATIONS		Location Plan			
Water Level	DTW	DTW	Weather: Rain, high 60's, windy		See Site Plan			
Date	11-1-2013		Date/Time Start: 11-1-2013/1310					
Time	1310		Date/Time Finish: 11-1-2013/1400					
Meas. From	ft bgs - Soil cuttings	Top of Casing						
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	SCHMATIC	COMMENTS	
+2								
+1								
0					0-6" Grass, roots, organics			
1					6"-5' Dry, dark brown, fine to medium SAND, some cobble, weathered rock boulders			
2		Vac-tron	NA	0.0				
3								
4								
5					0-8" Dry, brown, fine to medium SAND, little fine to medium sub-angular to sub-round gravel, trace brick			
6		Geoprobe	80	0.0	8-48" Moist, grey/olive, fine to medium SAND, some silt, trace sub-angular gravel			
7								
8								
9								
10	SB-1 (10-12)				0-20" Moist, grey/olive, fine to medium SAND, some silt, trace sub-angular gravel			
11		Geoprobe	80	0.0	20-44" Wet, grey/olive, fine to medium SAND, some silt, trace sub-angular gravel			
12					44-48" Wet, dark grey, fine to medium SAND, some silt, trace sub-angular gravel			
13								
14								
15					0-16" Wet, grey/olive, fine to medium SAND, some silt, trace sub-angular gravel			
16	SB-1 (15-17)	Geoprobe	100	0.0	16-30" Wet, grey, fine to medium SAND, trace silt			
17					30-60" Peat			
18								
19								
20					End of Boring at 20 ft bgs			
SAMPLING METHOD			Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 20 ft bgs.					
SS = SPLIT SPOON			Soil boring (SB-1) was converted to a monitoring well (MW-1) on 11/4/13.					
A = AUGER CUTTINGS								
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								

					<b>PARSONS DRILLING RECORD</b>		<b>BORING/WELL ID: SB-2</b>	
<b>Contractor:</b> Aquifer Drilling & Testing							Sheet 1 of 1	
<b>Driller:</b> Andrea Babel					<b>PROJECT NAME:</b> Consolidated Edison - Former Hunts Point Gas Works		<b>Location Description:</b>	
<b>Inspector:</b> Zohar Lavy					<b>PROJECT NUMBER:</b> 448468.01000		Halleck St on west side of property boundary	
<b>Rig Type:</b> Track Mounted Geoprobe Rig								
GROUNDWATER OBSERVATIONS							<b>Location Plan</b>	
Water Level	DTW	DTW			<b>Weather:</b> Rain, high 60's, windy		See Site Plan	
Date	11-1-2013				<b>Date/Time Start:</b> 11-1-2013/0940			
Time	940				<b>Date/Time Finish:</b> 11-1-2013/0955			
Meas. From	ft bgs -	Top of Casing						
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
+2								
+1								
0				NA	0-3" Concrete			
1					3-7" GRAVEL			
2		Vac-tron	NA	0.0	7"-5' Dry, dark brown, dense, fine to coarse SAND, some Cobble, little fine to coarse sub-angular and sub-round gravel, trace brick, trace boulder, trace silt			
3								
4								
5					0-8" Dry, brown, fine to medium SAND, some sub-angular Gravel, trace brick			
6					8-20" Weathered schist, cobble			
7	SB-2 (5-10)	Geoprobe	75	0.0	20-40" Dry/moist, brown/orange, fine angular GRAVEL and Ash, little fine sand			
8								
9								
10					0-12" Wet, brown/black, fine to medium SAND and fine to medium angular Gravel, some ash, little glass, trace wood			
11					12-42" Wet, grey, CLAY			
12	SB-2 (10-15)	Geoprobe	75	0.0				
13								
14								
15	End of Boring at 15 ft bgs							
<b>SAMPLING METHOD</b>					Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 15 ft bgs.			
SS = SPLIT SPOON								
A = AUGER CUTTINGS								
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								

					PARSONS DRILLING RECORD		BORING/WELL ID: SB-3 Sheet 1 of 1	
<b>Contractor:</b> Aquifer Drilling & Testing					<b>PROJECT NAME:</b> Consolidated Edison - Former Hunts Point Gas Works		<b>Location Description:</b>	
<b>Driller:</b> Andrea Babel							Halleck St on west side of property boundary	
<b>Inspector:</b> Zohar Lavy								
<b>Rig Type:</b> Track Mounted Geoprobe Rig								
<b>PROJECT NUMBER:</b> 448468.01000								
GROUNDWATER OBSERVATIONS					Weather: Rain, high 60's, windy		Location Plan	
Water Level	DTW	DTW			Date/Time Start: 11-1-2013/1110		See Site Plan	
Date	11-1-2013							
Time	1110							
Meas. From	ft bgs -	Top of Casing						
	Soil cuttings				Date/Time Finish: 11-1-2013/1125			
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHEMATIC	COMMENTS
+2								
+1								
0				NA	0-3" Concrete			
1					3-8" GRAVEL			
2		Vac-tron	NA	0.0	8"-5' Dry, brown, dense, fine to coarse SAND, some fine to coarse sub-angular and sub-round gravel, some cobble, trace brick, trace concrete, trace wood, trace silt			
3								
4								
5					0-40" Dry, brown/black, fine to medium SAND, some brick, little cobble, little f-c angular-subangular Gravel			
6								
7	SB-3 (5-10)	Geoprobe	80	0.3	40-48" Moist, dark brown/orange, fine to medium SAND and fine to medium angular Gravel, some ash			
8								
9								
10					0-24" Wet, dark brown/orange, fine to medium SAND and fine to medium angular Gravel, some ash			
11					24-44" Moist/wet, black, fine SAND and fine angular Gravel, some wood, trace ash, trace glass			
12		Geoprobe	95	0.0	44-55" Wet, grey, CLAY			
13	SB-3 (12-14)							
14								
15					End of Boring at 15 ft bgs			
<b>SAMPLING METHOD</b>					Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 15 ft bgs.			
SS = SPLIT SPOON								
A = AUGER CUTTINGS								
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								

					PARSONS DRILLING RECORD		BORING/WELL ID: SB-4 Sheet 1 of 1	
<b>Contractor:</b> Aquifer Drilling & Testing					<b>PROJECT NAME:</b> Consolidated Edison - Former Hunts Point Gas Works		<b>Location Description:</b>	
<b>Driller:</b> Andrea Babel							Halleck St on west side of property boundary	
<b>Inspector:</b> Zohar Lavy								
<b>Rig Type:</b> Track Mounted Geoprobe Rig								
<b>PROJECT NUMBER:</b> 448468.01000								
GROUNDWATER OBSERVATIONS					Weather: Clear, low 60s		Location Plan	
Water Level	DTW	DTW			Date/Time Start: 10-31-2013/1345		See Site Plan	
Date	10-31-2013				Date/Time Finish: 10-31-2013/1415			
Time	1345							
Meas. From	ft bgs -	Top of Casing						
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
+2								
+1								
0				NA	0-6" Concrete			
1					6-10" GRAVEL			
2		Vac-tron	NA	0.0	10"-5' Dry, brown, fine to medium SAND, some fine to coarse sub-angular gravel, little cobble, little brick, trace concrete, trace wood			
3								
4								
5					0-30" Dry, brown/black, fine to medium SAND, little fine to medium sub-angular gravel, trace brick			
6					30-40" Dry/moist, brown/grey, fine to medium SAND, trace fine sub-angular gravel, hydrocarbon odor			
7		Geoprobe	75	0.5				
8				52.0				
9								
10					0-10" Dry/moist, brown/grey, fine to medium SAND, trace fine sub-angular gravel, hydrocarbon odor			
11				137.0	10-24" Moist/wet, black, fine SAND and Wood, NAPL saturated, strong hydrocarbon odor			
12		Geoprobe	40	698.0				
13								
14								
15	SB-4 (15-17)			1260.0	0-24" Wet, black, fine to medium SAND and fine angular to sub-angular Gravel, trace wood, NAPL saturated, strong hydrocarbon odor			
16				350.0	24-30" Wet, grey/black, CLAY, NAPL staining			
17		Geoprobe	100	3.5	30-60" Wet, grey, CLAY			
18								
19	SB-4 (19-20)							
20					End of Boring at 20 ft bgs			
<b>SAMPLING METHOD</b>					Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 20 ft bgs.			
SS = SPLIT SPOON					NAPL observed from ~11-18 ft bgs.			
A = AUGER CUTTINGS					NAPL sample collected from 15-17 ft bgs and submitted for Fingerprint Analysis.			
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								



PARSONS DRILLING RECORD					BORING/WELL ID: SB-5/MW-2 Sheet 1 of 1		
Contractor: Aquifer Drilling & Testing			PROJECT NAME: Consolidated Edison - Former Hunts Point Gas Works		Location Description:		
Driller: Andrea Babel			PROJECT NUMBER: 448468.01000		Halleck St on west side of property boundary		
Inspector: Zohar Lavy							
Rig Type: Track Mounted Geoprobe Rig							
GROUNDWATER OBSERVATIONS					Location Plan		
Water Level	DTW	DTW	Weather: Clear, low 60s				
	~10' bgs	9.75	Date/Time Start: 10-31-2013/1240				
Date	10-31-2013	11-8-2013	Date/Time Finish: 10-31-2013/1300				
Time	1240	0830	See Site Plan				
Meas. From	ft bgs -	Top of Casing					
Soil cuttings							
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	SCHMATIC	COMMENTS
+2							
+1							
0				NA	0-3" Concrete		
1					3-7" GRAVEL		
2		Vac-tron	NA	0.0	7"-4.5' Dry, dark grey, dense, fine to coarse SAND, some cobble, little fine to coarse sub-angular to sub-round gravel, trace brick, trace boulder		
3					4.5-5' Dry, brown with red-orange mottling, dense, fine to coarse SAND, some cobble, little fine to coarse sub-angular gravel, trace silt		
4					0-24" Dry, grey/black, fine to medium SAND and Ash, some fine angular to sub-angular gravel		
5							
6							
7	SB-5 (5-10)	Geoprobe	40	0.0			
8							
9							
10							
11					0-30" Wet, grey/black, fine to medium SAND and Ash, some fine angular to sub-angular gravel		
12	SB-5 (10-15)	Geoprobe	80	0.0	30-48" Wet, grey, CLAY		
13							
14							
15							
16	End of Boring at 16 ft bgs						
SAMPLING METHOD			Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 16 ft bgs				
SS = SPLIT SPOON			Soil boring (SB-5) was converted to a monitoring well (MW-2) on 11/5/13.				
A = AUGER CUTTINGS							
C = CORED							
WH = WEIGHT OF HAMMER (RODS)							

PARSONS DRILLING RECORD					BORING/WELL ID: SB-6 Sheet 1 of 1			
<b>Contractor:</b> Aquifer Drilling & Testing					<b>Location Description:</b> Halleck St on west side of property boundary			
<b>Driller:</b> Andrea Babel								
<b>Inspector:</b> Zohar Lavy								
<b>Rig Type:</b> Track Mounted Geoprobe Rig								
<b>PROJECT NAME:</b> Consolidated Edison - Former Hunts Point Gas Works					<b>Location Plan</b>  See Site Plan			
<b>PROJECT NUMBER:</b> 448468.01000								
<b>Weather:</b> Clear, low 60s								
<b>Date/Time Start:</b> 10-31-2013/1015								
<b>Date/Time Finish:</b> 10-31-2013/1040					<b>SCHEMATIC</b>  <b>COMMENTS</b>			
GROUNDWATER OBSERVATIONS								
Water Level	DTW	DTW						
	-10' bgs							
Date	10-31-2013							
Time	1015							
Meas. From	ft bgs -	Top of Casing						
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)			FIELD IDENTIFICATION OF MATERIAL	
+2								
+1								
0				NA			0-3" Concrete	
1							3-8" GRAVEL	
2		Vac-tron	NA	0.0			8"-5' Dry, dark grey, dense, fine to coarse SAND, some cobble, little fine to coarse sub-angular to sub-round gravel, trace brick	
3								
4								
5							0-30" Dry, grey/brown, fine to medium SAND, some fine to medium angular to sub-angular gravel, little ash, trace brick	
6								
7		Geoprobe	65	0.0			30-40" Moist, grey/brown, fine to medium SAND, some fine to medium angular to sub-angular gravel, little ash, trace brick	
8	SB-6 (8-10)							
9								
10					0-10" Wet, grey/brown, fine to medium SAND, some fine to medium angular to sub-angular gravel, little ash, trace brick			
11								
12	SB-6 (10-15)	Geoprobe	55	0.0	10-26" Dry/moist, black, fine to medium SAND and medium to coarse sub-angular Gravel			
13					26-30" Wet, grey, CLAY			
14								
15					0-50" Wet, grey, CLAY			
16								
17		Geoprobe	90	0.0				
18								
19								
20					End of Boring at 20 ft bgs			
<b>SAMPLING METHOD</b>					Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 20 ft bgs.			
SS = SPLIT SPOON								
A = AUGER CUTTINGS								
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								

PARSONS DRILLING RECORD					BORING/WELL ID: SB-7 Sheet 1 of 1			
<b>Contractor:</b> Aquifer Drilling & Testing					<b>Location Description:</b> Halleck Street on west side of property boundary			
<b>Driller:</b> Andrea Babel								
<b>Inspector:</b> Zohar Lavy								
<b>Rig Type:</b> Track Mounted Geoprobe Rig								
<b>PROJECT NAME:</b> Consolidated Edison - Former Hunts Point Gas Works					<b>Location Plan</b>  See Site Plan			
<b>PROJECT NUMBER:</b> 448468.01000								
<b>Weather:</b> Clear, low 60s								
<b>Date/Time Start:</b> 10-31-2013/0835								
<b>Date/Time Finish:</b> 10-31-2013/0850					<b>SCHEMATIC</b>  <b>COMMENTS</b>			
GROUNDWATER OBSERVATIONS								
Water Level	DTW	DTW						
	~10' bgs							
Date	10-31-2013							
Time	835							
Meas. From	ft bgs -	Top of Casing						
	Soil cuttings							
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)			FIELD IDENTIFICATION OF MATERIAL	
+2								
+1								
0							0-6" Grass, roots, organics	
1		Vac-tron	NA	0.0			6"-5" Dry, brown, fine to coarse SAND, some cobble, little fine to coarse sub-angular gravel, little brick, trace concrete debris	
2								
3								
4								
5		Geoprobe	100	0.0			0-40" Dry, brown/black, fine to medium SAND, some fine to coarse angular to sub-round gravel, trace wood, trace fabric, trace brick	
6								
7								
8	SB-7 (8-10)							
9								
10		Geoprobe	60	0.0	0-36" Wet, grey/black, medium SAND and fine angular Gravel, some shells, little ash			
11								
12								
13								
14		Geoprobe	100	0.0	0-40" Wet, grey/black, medium SAND and fine angular Gravel, some shells, little ash, trace glass, trace wood			
15								
16	SB-7 (16-18)							
17								
18								
19					End of Boring at 20 ft bgs			
20								
<b>SAMPLING METHOD</b>					Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 20 ft bgs			
SS = SPLIT SPOON								
A = AUGER CUTTINGS								
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								

					PARSONS DRILLING RECORD		BORING/WELL ID: SB-8 Sheet 1 of 1	
<b>Contractor:</b> Aquifer Drilling & Testing					<b>PROJECT NAME:</b> Consolidated Edison - Former Hunts Point Gas Works		<b>Location Description:</b> Halleck Street on west side of property boundary	
<b>Driller:</b> Andrea Babel								
<b>Inspector:</b> Zohar Lavy								
<b>Rig Type:</b> Track Mounted Geoprobe Rig								
<b>GROUNDWATER OBSERVATIONS</b>					<b>Weather:</b> Clear, low 60s		<b>Location Plan</b>	
Water Level	DTW	DTW			<b>Date/Time Start:</b> 10-30-2013/1430		See Site Plan	
Date	10-30-2013				<b>Date/Time Finish:</b> 10-30-2013/1455			
Time	1430							
Meas. From	ft bgs - Soil cuttings	Top of Casing						
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL		SCHMATIC	COMMENTS
+2								
+1								
0					0-6" Grass, roots, organics			
1		Vac-tron	NA	0.0	6"-2' Dry, brown, fine to coarse SAND, some cobble, little brick, trace concrete debris			
2	2-2.5' Concrete debris							
3	2.5-5' Dry, brown, fine to coarse SAND, some cobble, little brick, little concrete debris							
4								
5		Geoprobe	75	0.0	0-12" Dry, brown, fine to medium SAND, some fine sub-round gravel			
6	12-30" Moist, grey/brown, fine to medium SAND, some fine angular to sub-round gravel, little brick, trace wood							
7	30-42" Moist/wet, black, fine to medium SAND and angular to sub-angular gravel, little wood, trace brick							
8								
9		Geoprobe	60	0.0	0-36" Wet, black, fine to medium SAND and fine to medium angular to sub-angular Gravel, trace wire			
10								
11								
12								
13		Geoprobe	100	0.0	0-12" Wet, black, fine to medium SAND and fine to medium angular to sub-angular Gravel, little wood, slight hydrocarbon odor			
14	SB-8 (15-16)							
15								
16								
17	SB-8 (17-19)				12-60" Wet, grey, CLAY, trace shells			
18								
19								
20					End of Boring at 20 ft bgs			
<b>SAMPLING METHOD</b>					Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 20 ft bgs			
SS = SPLIT SPOON								
A = AUGER CUTTINGS								
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								

PARSONS DRILLING RECORD					BORING/WELL ID: SB-9 Sheet 1 of 1		
<b>Contractor:</b> Aquifer Drilling & Testing					<b>Location Description:</b> Halleck Street on west side of property boundary		
<b>Driller:</b> Andrea Babel							
<b>Inspector:</b> Zohar Lavy							
<b>Rig Type:</b> Track Mounted Geoprobe Rig							
<b>PROJECT NAME:</b> Consolidated Edison - Former Hunts Point Gas Works					<b>Location Plan</b>  See Site Plan		
<b>PROJECT NUMBER:</b> 448468.01000							
<b>Weather:</b> Clear, low 60s							
<b>Date/Time Start:</b> 10-30-2013/1320							
<b>Date/Time Finish:</b> 10-30-2013/1340							
GROUNDWATER OBSERVATIONS							
Water Level	DTW	DTW					
	-9' bgs						
Date	10-30-2013						
Time	1320						
Meas. From	ft bgs -	Top of Casing					
	Soil cuttings						
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC	COMMENTS
+2							
+1							
0					0-6" Grass, roots, organics		
1					6"-5" Dry, brown, fine to coarse SAND, some cobble, little fine to coarse sub-angular gravel, little brick, trace concrete debris		
2		Vac-tron	NA	0.0			
3							
4							
5					0-20" Moist, brown, fine to medium SAND, some fine to medium sub-angular to sub-round gravel, trace silt, trace brick		
6					20-36" Moist, black, fine to medium SAND, some fine angular to sub-angular gravel, little silt		
7	SB-9 (5-10)	Geoprobe	80	0.0	36-42" COBBLE		
8					42-48" Moist/wet, black, fine to medium SAND and fine angular Gravel, little coal		
9							
10					0-18" Moist/wet, black, fine to medium SAND and fine to medium angular to sub-round Gravel, trace coal, trace wood		
11					18-48" Wet, grey, CLAY		
12	SB-9 (10-15)	Geoprobe	80	0.0	30-60" Wet, grey, CLAY, trace shells		
13							
14							
15					End of Boring at 15 ft bgs		
<b>SAMPLING METHOD</b>					Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 15 ft bgs.		
SS = SPLIT SPOON							
A = AUGER CUTTINGS							
C = CORED							
WH = WEIGHT OF HAMMER (RODS)							



PARSONS DRILLING RECORD					BORING/WELL ID: SB-11/MW-3 Sheet 1 of 1			
Contractor: Aquifer Drilling & Testing			PROJECT NAME: Consolidated Edison - Former Hunts Point Gas Works		Location Description:			
Driller: Andrea Babel					Halleck Street on west side of property boundary			
Inspector: Zohar Lavy					PROJECT NUMBER: 448468.01000			
Rig Type: Track Mounted Geoprobe Rig			Weather: Clear, low 60s		Location Plan			
GROUNDWATER OBSERVATIONS					Date/Time Start: 10-30-2013/0930			
Water Level	DTW	DTW			Date/Time Finish: 10-30-2013/1015			
~7 bgs	5.95				See Site Plan			
Date	10-30-2013	11-8-2013						
Time	930	0830						
Meas. From	ft bgs - Soil cuttings	Top of Casing						
Sample Depth	Location/ Sample I.D.	SPT	Rec. (%)	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	SCHMATIC	COMMENTS	
+2								
+1								
0					0-6" Grass, roots			
1					6-4" Moist/dry, brown, fine to coarse SAND, some fine to coarse sub-angular to sub-round gravel, little concrete debris, trace brick			
2		Vac-tron	NA	0.0	4-5' Moist/dry, brown, fine to coarse SAND, some fine to coarse sub-angular to sub-round gravel and concrete debris, trace brick			
3								
4								
5					0-18" Dry, grey/brown, medium SAND and fine to medium angular to sub-angular Gravel, little ash			
6	SB-11 (5-10)	Geoprobe	50	0.0	18-24" Moist, black, medium SAND and fine to medium angular to sub-angular Gravel, little ash			
7					24-30" Wet, black, medium SAND and fine to medium angular to sub-angular Gravel, little ash			
8								
9								
10					0-24" Wet, black, medium SAND and fine to medium angular to sub-angular Gravel, trace concrete			
11	SB-11 (10-15)	Geoprobe	40	0.0				
12								
13								
14								
15					0-20" Wet, black, medium SAND and fine to medium angular to sub-angular Gravel, trace concrete, trace porcelain			
16	SB-11 (15-20)	Geoprobe	40	0.0	20-24" Moist, grey, CLAY			
17								
18								
19								
20					0-50" Moist, grey, CLAY, trace shells			
21								
22		Geoprobe	90	0.0				
23								
24								
25					End of Boring at 25 ft bgs			
SAMPLING METHOD					Hand cleared to 5 ft bgs; Geoprobe drilled from 5 to 25 ft bgs			
SS = SPLIT SPOON					Soil boring (SB-11) was converted to a monitoring well (MW-3) on 11/5/13.			
A = AUGER CUTTINGS								
C = CORED								
WH = WEIGHT OF HAMMER (RODS)								

**APPENDIX B**

**GROUNDWATER SAMPLING LOGS**



# PARSONS GROUNDWATER SAMPLING RECORD

**SITE NAME:** Con Edison (Farmington Field) Halleck  
**PROJECT NUMBER:** 446107-09700  
**Purge Date:** 11/27/13  
**Sampling Date:** 11/27/13  
**Samplers:** Zohar Lavy of Parsons / Somerset, NJ  
**SAMPLE ID:** MW-1  
**Sampling Method:** Low flow purge (Monsoon Pump)

**WELL PURGING**

Static Water Level (TOC): 12.05  
 Depth to Well Bottom (TOC): 17.15

**CALCULATIONS:**

**2-inch Casing:** Ft. of Water in Well \_\_\_\_\_ X (GAL / FT) = \_\_\_\_\_ Gallons  
**3-inch Casing:** Ft. of Water in Well \_\_\_\_\_ x 0.16 = \_\_\_\_\_ Gallons  
**4-inch Casing:** Ft. of Water in Well \_\_\_\_\_ x 0.32 = \_\_\_\_\_ Gallons  
**Method:** Low Flow Pump

**SAMPLE DESCRIPTION**

Odor: \_\_\_\_\_  
 Other: No Odor

**FIELD TESTS**

Time \_\_\_\_\_  
 Depth To Water (TOC) (ft) \_\_\_\_\_  
 Depth To Pump (TOC) (ft) \_\_\_\_\_  
 Flow Rate (ml/min) \_\_\_\_\_  
 Volume of Water Purged \_\_\_\_\_  
 pH (s.u.) \_\_\_\_\_  
 Conductivity (mS/cm) \_\_\_\_\_  
 Turbidity (NTUs) \_\_\_\_\_  
 Dissolved Oxygen (mg/L) \_\_\_\_\_  
 Temperature (Degrees C) \_\_\_\_\_  
 ORP (mV) \_\_\_\_\_  
 Salinity (%) \_\_\_\_\_  
 TDS (g/L) \_\_\_\_\_

PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE
1145	1150	1155	1200	1205	1210	1215	1220
~200	~250	~250	~250	~250	~250	~250	~250
~0.25	~0.25	~0.25	~0.25	~0.25	~0.25	~0.25	~0.25
6.78	6.77	6.79	6.78	6.77	6.78	6.79	6.79
3.16	3.66	3.65	4.26	4.36	4.4	4.43	4.45
6.99	6.38	6.15	2.34	1.0	58.7	30.2	10.3
1.9	1.4	1.0	0.75	1.0	0.95	0.93	0.92
12.03	12.67	12.22	12.29	12.56	12.55	12.34	12.46
-48	-69	-77	-90	-95	-98	-100	-101
1.7	1.9	1.9	2.3	2.3	2.3	2.3	2.3
2.04	2.37	2.34	2.72	2.75	2.78	2.78	2.8

**SAMPLE ANALYSIS / LABORATORY**

Analyze For: TCL VOC's, TCL SVOCs, TAL Metals, CN  
 Shipped Via: Chemtech  
 Laboratory: \_\_\_\_\_  
 Other Notes: \_\_\_\_\_

# PARSONS

## GROUNDWATER SAMPLING RECORD

**SITE NAME:** Con Edison (Ewington Ct. Holders) *Halleck St.*  
**PROJECT NUMBER:** ~~46197 00000~~  
**Purge Date:** *11/27/13*  
**Sampling Date:** *11/27/13*  
**Samplers:** Zohar Lavy of Parsons / Somerset, NJ  
**SAMPLE ID:** *MW-2*  
**Sampling Method:** Low flow purge (Monsoon Pump)

**WELL PURGING**

Static Water Level (TOC): *9.47*  
 Depth to Well Bottom (TOC): *16.1*  
**CALCULATIONS:**  
 2-inch Casing: Ft. of Water in Well \_\_\_\_\_ X (GAL / FT) = \_\_\_\_\_ Gallons  
                   x 0.16 = \_\_\_\_\_ Gallons  
 3-inch Casing: Ft. of Water in Well \_\_\_\_\_ x 0.32 = \_\_\_\_\_ Gallons  
 4-inch Casing: Ft. of Water in Well \_\_\_\_\_ x 0.64 = \_\_\_\_\_ Gallons  
 Method: Low Flow Pump

**SAMPLE DESCRIPTION**

Odor: *No Odor*  
 Other: *Clear*

**FIELD TESTS**

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE
Time	<i>10:15</i>	<i>10:20</i>	<i>10:25</i>	<i>10:30</i>	<i>10:35</i>	<i>10:40</i>	<i>10:45</i>	<i>10:50</i>
Depth To Water (TOC) (ft)	<i>15.1</i>							<i>7</i>
Depth To Pump (TOC) (ft)								
Flow Rate (ml/min)	<i>~250</i>	<i>~250</i>	<i>~200</i>	<i>~250</i>	<i>~250</i>	<i>~250</i>	<i>~250</i>	<i>~250</i>
Volume of Water Purged	<i>~0.5</i>	<i>~1</i>	<i>-1.25</i>	<i>~1.5</i>	<i>~2</i>	<i>~2.5</i>	<i>~3</i>	<i>3.5</i>
pH (s.u.)	<i>7.21</i>	<i>7.21</i>	<i>7.21</i>	<i>7.20</i>	<i>7.19</i>	<i>7.18</i>	<i>7.16</i>	<i>7.18</i>
Conductivity (mS/cm)	<i>2.25</i>	<i>2.22</i>	<i>2.18</i>	<i>2.15</i>	<i>2.13</i>	<i>2.12</i>	<i>2.11</i>	<i>2.10</i>
Turbidity (NTUs)	<i>6.15</i>	<i>3.67</i>	<i>2.08</i>	<i>1.31</i>	<i>69.3</i>	<i>4.02</i>	<i>20.9</i>	<i>0</i>
Dissolved Oxygen (mg/L)	<i>27.23</i>	<i>7.87</i>	<i>2.01</i>	<i>1.67</i>	<i>1.88</i>	<i>1.91</i>	<i>1.36</i>	<i>1.36</i>
Temperature (Degrees C)	<i>17.24</i>	<i>17.29</i>	<i>17.44</i>	<i>17.66</i>	<i>17.73</i>	<i>17.85</i>	<i>17.83</i>	<i>17.81</i>
ORP (mV)	<i>-124</i>	<i>-127</i>	<i>-131</i>	<i>-140</i>	<i>-144</i>	<i>-146</i>	<i>-147</i>	<i>-147</i>
Salinity (%)	<i>1.2</i>	<i>1.2</i>	<i>1.2</i>	<i>1.1</i>	<i>1.1</i>	<i>1.1</i>	<i>1.1</i>	<i>1.1</i>
TDS (g/L)	<i>1.44</i>	<i>1.41</i>	<i>1.33</i>	<i>1.37</i>	<i>1.36</i>	<i>1.35</i>	<i>1.35</i>	<i>1.35</i>

**SAMPLE ANALYSIS / LABORATORY**

Analyze For: TCL VOC's, TCL SVOCs, TAC Metals, CN  
 Shipped Via: Chemtech  
 Laboratory: \_\_\_\_\_  
 Other Notes: \_\_\_\_\_

## PARSONS GROUNDWATER SAMPLING RECORD

**SITE NAME:** Con Edison (Parlington Ct. Holder) 1427/13  
**PROJECT NUMBER:** 446407-0000  
**Purge Date:** 11/27/13  
**Sampling Date:** 11/27/13  
**Samplers:** Zohar Lavy of Parsons / Somerset, NJ  
**SAMPLE ID:** MW-3  
**Sampling Method:** Low flow purge (Monsoon Pump)

### WELL PURGING

Static Water Level (TOC): 5.6  
 Depth to Well Bottom (TOC): 17.25  
**CALCULATIONS:**  
 2-inch Casing: Ft. of Water in Well \_\_\_\_\_ X (GAL / FT) = \_\_\_\_\_ Gallons  
 3-inch Casing: Ft. of Water in Well \_\_\_\_\_ x 0.16 = \_\_\_\_\_ Gallons  
 4-inch Casing: Ft. of Water in Well \_\_\_\_\_ x 0.32 = \_\_\_\_\_ Gallons  
 Method: Low Flow Pump

### SAMPLE DESCRIPTION

Odor: No Odor  
 Other: Clear

### FIELD TESTS

	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	SAMPLE
Time	0810	0815	0820	0825	0830	0835	0840	0845
Depth To Water (TOC) (ft)	5.91	6.0	5.93	5.85	5.97	5.96	5.81	5.75
Depth To Pump (TOC) (ft)	16.25							
Flow Rate (ml/min)	~350	~350	~350	~250	~350	~200	~200	~250
Volume of Water Purged	~0.75	~1.5	~2.25	~3	~3.5	~4	~4.5	~5
pH (s.u.)	7.12	7.16	7.17	7.17	7.17	7.18	7.18	7.18
Conductivity (mS/cm)	5.56	5.98	6.24	6.28	6.3	6.3	6.31	6.3
Turbidity (NTUs)	3.97	1.32	40.7	5.5	0	0	0	0
Dissolved Oxygen (mg/L)	3.77	1.75	1.43	1.18	1.05	1.0	0.98	0.97
Temperature (Degrees C)	17.71	17.35	17.65	17.78	17.75	17.8	17.82	17.79
ORP (mV)	-119	-132	-140	-149	-156	-161	-165	-168
Salinity (%)	3.0	3.3	3.4	3.4	3.4	3.4	3.5	3.5
TDS (g/L)	3.52	3.78	3.95	3.95	3.95	3.95	3.95	3.95

### SAMPLE ANALYSIS / LABORATORY

Analyze For: TCL VOC's, TCL SVOCs, TAL Metals, CN  
 Shipped Via: Chemtech  
 Laboratory: \_\_\_\_\_  
 Other Notes: \_\_\_\_\_

**APPENDIX C**

**DATA USABILITY SUMMARY REPORT**

---

---

# DATA USABILITY SUMMARY REPORT

## HALLECK STREET SIDEWALK SITE

---

---

*Prepared For:*



**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.**

31-01 20<sup>th</sup> Avenue  
Long Island City, NY 11105

*Prepared By:*

**PARSONS**

301 Plainfield Road, Suite 350  
Syracuse, New York 13212  
Phone: (315) 451-9560  
Fax: (315) 451-9570

**FEBRUARY 2014**

## TABLE OF CONTENTS

	<u>Page</u>
<b>SECTION 1 DATA USABILITY SUMMARY.....</b>	<b>1-1</b>
1.1 LABORATORY DATA PACKAGES.....	1-1
1.2 SAMPLING AND CHAIN-OF-CUSTODY .....	1-1
1.3 LABORATORY ANALYTICAL METHODS .....	1-1
1.3.1 Volatile Organic Analysis.....	1-2
1.3.2 Semivolatile Organic Analysis .....	1-2
1.3.3 Inorganics Analysis.....	1-2
<b>SECTION 2 DATA VALIDATION REPORT.....</b>	<b>2-1</b>
2.1 SOIL.....	2-1
2.1.1 Volatiles.....	2-1
2.1.2 Semivolatiles .....	2-4
2.1.3 Inorganics .....	2-6
2.2 GROUNDWATER.....	2-8
2.2.1 Volatiles.....	2-8
2.2.2 Semivolatiles .....	2-10
2.2.3 Inorganics .....	2-11

## LIST OF ATTACHMENTS

### ATTACHMENT A VALIDATED LABORATORY DAT

**ATTACHMENT A-1 VALIDATED LABORATORY DATA FOR SOIL  
SAMPLES**

**ATTACHMENT A-2 VALIDATED LABORATORY DATA FOR  
GROUNDWATER SAMPLES**

# SECTION 1

## DATA USABILITY SUMMARY

Soil and groundwater samples were collected from the Consolidated Edison Halleck Street site in Bronx, New York from October 30, 2013 through November 27, 2013. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan,
- NYSDEC Analytical Services Protocol (ASP), and
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review.

The analytical laboratory for this project was Chemtech. This laboratory is certified to perform project analyses through the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP).

### 1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 28 days on average for the project samples.

The data packages received from Chemtech were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized in Section 2.

### 1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, properly preserved, shipped under a chain-of-custody (COC) record, and received at Chemtech within one day of sampling. All samples were received intact and in good condition at Chemtech.

### 1.3 LABORATORY ANALYTICAL METHODS

The soil and groundwater samples that were collected from the site were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, and cyanide. Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, and comparability (PARCC) are discussed for each analytical method in Section 2. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given,

"UJ" - estimated and not detected at the value given,

- "J" - estimated at the value given,
- "N" - presumptive evidence at the value given, and
- "R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

### **1.3.1 Volatile Organic Analysis**

Soil and groundwater samples were analyzed for VOCs using the USEPA SW-846 8260C analytical method. Certain reported results for the VOC samples were qualified as estimated based upon laboratory control sample (LCS) recoveries, instrument calibrations, and internal standard responses. Certain reported VOC analytical results were considered unusable and qualified "R" based upon poor instrument calibrations. The reported VOC analytical results were 99.5% to 100% complete (i.e., usable) for the soil and groundwater data, respectively. PARCC requirements were met overall.

### **1.3.2 Semivolatile Organic Analysis**

Soil and groundwater samples were analyzed for SVOCs using the USEPA SW-846 8270D analytical method. Certain reported results for the SVOC samples were qualified as estimated based upon laboratory control sample (LCS) recoveries, matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy, instrument calibrations, and field duplicate precision. Certain reported SVOC analytical results were considered unusable and qualified "R" based upon poor LCS recoveries and MS/MSD precision and accuracy. The reported SVOC analytical results were 98.6% to 100% complete (i.e., usable) for the soil and groundwater data, respectively. PARCC requirements were met overall.

### **1.3.3 Inorganics Analysis**

Soil and groundwater samples were analyzed for metals and cyanide using the USEPA SW-846 6010C/7470A/7471A/9012B analytical methods. Certain reported results for the inorganics samples were qualified as estimated based upon matrix spike recoveries, interference check sample recoveries, serial dilutions, and field duplicate precision. The reported inorganic analytical results were considered 100% complete (i.e., usable) for the soil and groundwater data. PARCC requirements were met.



## SECTION 2

### DATA VALIDATION REPORT

#### 2.1 SOIL

Data review has been completed for data packages generated by Chemtech containing soil samples collected from the site. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The analytical results were presented by the laboratory in two sample delivery groups (SDGs): E4277 and E4340. Data validation was performed for all samples in accordance with the most current editions of the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type and the validated laboratory data are presented in Attachment A-1.

##### 2.1.1 Volatiles

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and field equipment blank contamination
- GC/MS instrument performance
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD precision and accuracy, LCS recoveries, blank contamination, initial and continuing calibrations, and internal standard responses as discussed below.

##### MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked

project samples with the exception of the high MS/MSD accuracy results for isopropylbenzene, 1,1,2,2-tetrachloroethane, and 1,2-dibromo-3-chloropropane, the low MSD accuracy result for 1,2,4-trichlorobenzene, and the high precision result for methylcyclohexane during the spiked analyses of sample SB-6 (8-10); and the high MS accuracy result for isopropylbenzene during the spiked analyses of sample MW-1 (10-15). Validation qualification of the parent samples for these compounds was not required.

### LCS Recoveries

All LCS recoveries associated with project samples were considered acceptable and within QC limits with the exception of the low LCS recovery for 1,2-dichlorobenzene (80%R; QC limit 82-118%R) associated with samples SB-7 (8-10), SB-7 (16-18), SB-6 (8-10), and SB-4 (19-20); the high LCS recoveries for methylene chloride (135%R; QC limit 73-134%R) and 1,1,2,2-tetrachloroethane (125%R; QC limit 79-124%R) associated with samples SB-6 (10-15), SB-17 (8-10), and MW-1 (10-15); and the high LCS recovery for cis-1,2-dichloroethene (142%R; QC limit 78-122%R) associated with samples SB-2 (5-10), SB-2 (10-15), SB-3 (5-10), SB-3 (12-14), SB-1 (10-12), SB-1 (15-17), SB-5 (5-10), and SB-5 (10-15). Positive results for those compounds where LCS recoveries exceeded the QC limits were considered estimated, possibly biased high, and qualified “J” for the affected samples. Results for those compounds where LCS recoveries fell below the QC limits were considered estimated, possibly biased low, with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

### Blank Contamination

The laboratory method blank associated with samples SB-6 (10-15), SB-17 (8-10), and MW-1 (10-15) contained methylene chloride at a concentration of 4.6 µg/kg; and the laboratory method blank associated with sample MW-11 (5-10) contained methylene chloride at a concentration of 2 µg/kg. Therefore, methylene chloride results less than the validation action concentrations were considered not detected and qualified “U” for the affected samples.

### Initial and Continuing Calibrations

All initial calibration compounds were compliant with a minimum average relative response factor (RRF) of 0.05 and a maximum percent relative standard deviation (%RSD) of 20% with the exception of 1,2-dibromo-3-chloropropane (21.2%RSD) in the initial calibration associated with samples FB110113, TB110113, FB110413, and TB110413; carbon tetrachloride (63.5%RSD), 4-methyl-2-pentanone (24.9%RSD), ethylbenzene (29%RSD), bromoform (22.6%RSD), isopropylbenzene (27.9%RSD), and 1,2,4-trichlorobenzene (21.4%RSD) in the initial calibration associated with sample SB-4 (15-17); and chloroethane (20.6%RSD) and trichlorofluoromethane (23.3%RSD) in the initial calibration associated with samples SB-2 (5-10), SB-2 (10-15), SB-3 (5-10), SB-3 (12-14), SB-1 (10-12), SB-1 (15-17), SB-5 (5-10), SB-5 (10-15), MW-11 (5-10), and MW-1 (5-10). The results for these compounds were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

All continuing calibration compounds were compliant with a minimum RRF of 0.05 and a maximum percent difference (%D) within  $\pm 20\%$  with the exception of methyl acetate (20.49%D), 1,2-dichloropropane (21.76%D), bromoform (25.91%D), 1,1,2,2-tetrachloroethane

(24.33%D), 1,2,4-trichlorobenzene (20.44%D), 1,2,3-trichlorobenzene (20.45%D), and 1,4-dioxane (100%D) in the continuing calibration associated with samples SB-11 (5-10), SB-11 (15-20), SB-10 (5-10), SB-10 (10-12), SB-9 (5-10), SB-9 (10-15), SB-8 (15-16), and SB-8 (17-19); bromochloromethane (21.65%D, -21.65%D) in the continuing calibrations associated with samples SB-7 (8-10), SB-7 (16-18), SB-6 (8-10), SB-6 (10-15), SB-17 (8-10), SB-4(19-20), and MW-1 (10-15); trichlorofluoromethane (20.01%D) and cis-1,2-dichloroethene (37.56%D) in the continuing calibration associated with samples SB-2 (5-10), SB-2 (10-15), SB-3 (5-10), SB-3 (12-14), SB-1 (10-12), SB-1 (15-17), SB-5 (5-10), and SB-5 (10-15); acetone (-35.16%D), 2-butanone (22.81%D), carbon tetrachloride (-27.52%D), 2-hexanone (23.91%D), 1,2,4-trichlorobenzene (28.6%D), and 1,4-dioxane (50%D) in the continuing calibration associated with sample SB-4 (15-17); vinyl chloride (-20.15%D), chloroethane (-20.55%D), 1,1-dichloroethane (33.9%D), 2-hexanone (33.49%D), dibromochloromethane (25.96%D), 1,2-dibromoethane (23.02%D), and bromoform (37.04%D) in the continuing calibration associated with samples FB110113, TB110113, FB110413, and TB110413; chloroethane (30.36%D) and trichlorofluoromethane (37.78%D) in the continuing calibration associated with sample MW-11 (5-10); and chloroethane (28.19%D) and trichlorofluoromethane (38.49%D) in the continuing calibration associated with sample MW-1 (5-10). Therefore, the sample results for these compounds were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples. However, nondetected sample results for those compounds where the %D was greater than 90% were considered unusable and qualified “R” for the affected samples.

#### Internal Standard Responses

All internal standard (IS) responses and retention times were within specified QC ranges based on associated calibration standards (i.e., sample’s area count within -50% to +100% and retention times within  $\pm 0.5$  minutes of the standard) with the exception of the low IS response for 1,4-dichlorobenzene-d4 in samples SB-11 (5-10), SB-10 (5-10), SB-7 (8-10), SB-7 (16-18), SB-6 (8-10), SB-2 (5-10), SB-2 (10-15), and SB-5 (10-15). These samples were reanalyzed yielding similar IS responses. Therefore, sample results associated with this IS were considered estimated, possibly biased low, with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

#### Usability

All volatile soil sample results were considered usable following data validation with the exception of certain nondetected results based upon poor instrument calibration linearity for 1,4-dioxane.

#### Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The volatile soil data presented by Chemtech were 99.5% complete (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A-1.

## 2.1.2 Semivolatiles

The following items were reviewed for compliancy in the semivolatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS recoveries
- Laboratory method blank and field equipment blank contamination
- GC/MS instrument performance
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries, MS/MSD precision and accuracy, LCS recoveries, initial and continuing calibrations, and field duplicate precision as discussed below.

### Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low recovery for the surrogate phenol-d6 (QC limit 34-127%R) in sample SB-7 (8-10) (31%R). Validation qualification of this sample was not required since only one acid surrogate fell below the QC limit.

### MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the high MSD accuracy results for fluoranthene and benzo(b)fluoranthene, the low MSD accuracy result for hexachlorocyclopentadiene, the less than 10% MS/MSD accuracy results for benzaldehyde, and the many high precision results during the spiked analyses of sample SB-6(8-10); and the 0% MS/MSD accuracy results for benzaldehyde and the high precision results for 2,4-dinitrophenol and 4,6-dinitro-2-methylphenol during the spiked analyses of sample MW-1 (5-10). Validation qualification of these compounds was not required for the parent samples with the exception of benzaldehyde. The nondetected benzaldehyde results were considered unusable and qualified “R” for the parent samples.

## LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the high LCS recoveries for hexachlorocyclopentadiene (136%R; QC limit 38-122%R), carbazole (106%R; QC limit 57-102%R), di-n-butylphthalate (106%R; QC limit 57-103%R), benzo(b)fluoranthene (118%R; QC limit 56-103%R), benzo(g,h,i)perylene (106%R; QC limit 56-105%R) associated with samples SB-11 (5-10), SB-11 (15-20), SB-10 (5-10), SB-10 (10-12), SB-9 (5-10), SB-9 (10-15), SB-8 (15-16), and SB-8 (17-19); the less than 10% LCS recovery for benzaldehyde associated with all samples; and the high LCS recoveries for hexachlorocyclopentadiene (127%R, 124%R; QC limit 38-122%R) associated with all soil samples except SB-11 (5-10), SB-11 (15-20), SB-10 (5-10), SB-10 (10-12), SB-9 (5-10), SB-9 (10-15), SB-8 (15-16), and SB-8 (17-19). Therefore, results for those compounds where LCS recoveries fell below the QC limit were considered estimated, possibly biased low, with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples. However, the benzaldehyde results which were nondetects were considered unusable and qualified “R” for the affected samples. Positive results for those samples where LCS recoveries exceeded the QC limit were considered estimated, possibly biased high, and qualified “J” for the affected samples.

## Initial and Continuing Calibrations

All initial calibration compounds were compliant with a minimum relative response factor (RRF) of 0.05 and a maximum percent relative standard deviation (%RSD) of 20% with the exception of 2,4-dinitrophenol (30.6%RSD) in the initial calibration associated with samples SB-11 (5-10), SB-11 (15-20), SB-10 (5-10), SB-10 (10-12), SB-9 (5-10), SB-9 (10-15), SB-8 (15-16), SB-8 (17-19), SB-1 (15-17), FB110113, and FB110413; and 4,6-dinitro-2-methylphenol (26%RSD) in the initial calibration associated with soil samples in SDGs E4277 and E4340 except SB-11 (5-10), SB-11 (15-20), SB-10 (5-10), SB-10 (10-12), SB-9 (5-10), SB-9 (10-15), SB-8 (15-16), SB-8 (17-19), SB-1 (15-17), and FB110113. The results for these compounds were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

All continuing calibration compounds were compliant with a minimum RRF of 0.05 and a maximum percent difference (%D) within  $\pm 20\%$  with the exception of 2,4-dinitrophenol (54.1%D), 4,6-dinitro-2-methylphenol (21.5%D), atrazine (22.4%D), benzo(b)fluoranthene (20.7%D), and benzo(k)fluoranthene (-21.2%D) in the continuing calibration associated with sample SB-8 (17-19); nitrobenzene (-20.3%D) and pentachlorophenol (-23.4%D) in the continuing calibration associated with samples FB110113 and SB-1 (15-17); 2,4-dinitrophenol (36.1%D) and 4,6-dinitro-2-methylphenol (35.4%D) in the continuing calibration associated with samples SB-7 (8-10), SB-7 (16-18), SB-6 (8-10), SB-4 (15-17), and MW-1 (10-15); phenol (-27.8%D), hexachlorocyclopentadiene (22.6%D), 2,4-dinitrophenol (57.4%D), 4,6-dinitro-2-methylphenol (58.2%D), bis(2-ethylhexyl)phthalate (22.4%D), and di-n-octylphthalate (29.2%D) in the continuing calibration associated with samples SB-6 (10-15), SB-17 (8-10), SB-5 (5-10), SB-5 (10-15), SB-4 (19-20), SB-2 (5-10), SB-2 (10-15), SB-3 (5-10), SB-3 (12-14), and SB-1 (10-12); phenol (-20.7%D), 2-nitroaniline (20.3%D), 2,4-dinitrophenol (80.3%D), 4-nitrophenol (26.1%D), 2,4-dinitrotoluene (23.4%D), 4-nitroaniline (20.7%D), 4,6-dinitro-2-methylphenol (68.4%D), and benzo(k)fluoranthene (20.7%D) in the continuing calibration associated with samples MW-1 (5-10) and MW-11 (5-10); and benzaldehyde (-20.2%D),

hexachlorocyclopentadiene (-26.2%D), 2,4-dinitrophenol (-22.4%D), and benzo(k)fluoranthene (23.5%D) in the continuing calibration associated with sample FB110413 . Therefore, results for these compounds were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

### Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision results for dimethylphthalate, anthracene, benzo(k)fluoranthene, and benzo(g,h,i)perylene for the field duplicate pair SB-7 (8-10) and SB-17 (8-10). Therefore, the results for these compounds were considered estimated and qualified “J” for these samples.

### Usability

All semivolatile soil sample results were considered usable following data validation with the exception of certain nondetected results based upon poor MS/MSD and LCS recoveries.

### Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The semivolatile soil data presented by Chemtech were 98.6% complete (i.e., usable). The validated semivolatile laboratory data are tabulated and presented in Attachment A-1.

## **2.1.3 Inorganics**

The following items were reviewed for compliancy in the inorganics analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank, and field equipment blank contamination
- Inductively coupled plasma (ICP) interference check sample (ICS)
- Matrix spike (MS) recoveries
- Laboratory duplicate precision
- Field duplicate precision
- Laboratory control sample (LCS) recoveries
- ICP serial dilutions
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination, ICS recoveries, matrix spike recoveries, serial dilutions, and field duplicate precision as discussed below.

### Blank Contamination

The field equipment blank FB110113 associated with samples in SDG E4277 contained calcium and sodium at concentrations of 86.5 and 41.3 µg/L, respectively. Since sample results were not affected by the contamination in this blank, validation qualification was not required.

### ICS Recoveries

All ICS recoveries were considered acceptable and within the 80-120%R QC limit for all analytes with the exception of the low ICS recovery for barium (72.5%R) and the high ICS recoveries for cobalt (125.5%R, 130.3%R) associated with samples in SDG E4340. Therefore, barium results were considered estimated, possibly biased low, with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples. Positive cobalt results were considered estimated, possibly biased high, and qualified “J” for the affected samples.

### Matrix Spike Recoveries

All the MS recoveries for designated spiked project samples were within the 75-125%R QC limit with sample concentrations less than four times the spiking concentration with the exception of the low MS recoveries for antimony (26%R) and lead (24%R, 22%R) and the high MS recoveries for nickel (146%R, 144%R) and potassium (186%R) associated with all soil samples in SDG E4277; and the low MS recoveries for antimony (21.1%R, 21.8%R) associated with soil samples in SDG E4340. Therefore, positive results for those analytes where MS recoveries exceeded the QC limit were considered estimated, possibly biased high, and qualified “J” for the affected samples. Results for those analytes where MS recoveries fell below the QC limit were considered estimated, possibly biased low, with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

### ICP Serial Dilutions

All serial dilution results for designated project samples were considered acceptable with a percent difference (%D) less than 10% for all ICP analytes with the exception of aluminum (12%D), barium (19%D), calcium (23%D), chromium (19%D), copper (30%D), magnesium (19%D), manganese (29%D), potassium (18%D), sodium (18%D), and vanadium (21%D) associated with soil samples in SDG E4340. Therefore, positive results for these analytes were considered estimated and qualified “J” for the affected samples.

### Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision results for cyanide for the field duplicate pair SB-7 (8-10) and SB-17 (8-10). Therefore, the cyanide results for these samples were considered estimated with the positive result qualified “J” and the nondetected result qualified “UJ”.

## Usability

All inorganics soil sample results were considered usable following data validation

## Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The inorganics soil data presented by Chemtech were 100% complete (i.e., usable). The validated soil inorganics laboratory data are tabulated and presented in Attachment A-1.

## **2.2 GROUNDWATER**

Data review has been completed for data packages generated by Chemtech containing groundwater samples collected from the site. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The analytical results were presented by the laboratory in one sample delivery group (SDG): E4638. Data validation was performed for all samples in accordance with the most current editions of the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type and the validated laboratory data are presented in Attachment A-2.

### **2.2.1 Volatiles**

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and field equipment/trip blank contamination
- GC/MS instrument performance
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD precision and accuracy, LCS recoveries, blank contamination, and initial and continuing calibrations as discussed below.



### MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated project spiked samples with the exception of the high precision results for carbon tetrachloride, 1,1,2-trichloroethane, 2-hexanone, tetrachloroethene, isopropylbenzene, 1,1,2,2-tetrachloroethane, and 1,3-dichlorobenzene during the spiked analyses of sample MW-3. Validation qualification of the parent sample was not required.

### LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits for all compounds with the exception of the high LCS recovery for bromochloromethane (150%R; 65-130%R) associated with samples MW-1, -2, and -3. Validation qualification was not required since this compound was not detected in these samples.

### Blank Contamination

The field equipment blank FB112713 associated with groundwater samples contained methylene chloride at a concentration of 1.1 µg/L. Since this compound was not detected in the project samples, validation qualification was not required.

### Initial and Continuing Calibrations

All initial calibration compounds were compliant with a minimum relative response factor (RRF) of 0.05 and a maximum percent relative standard deviation (%RSD) of 20% with the exception of cyclohexane (40.7%RSD) in the initial calibration associated with all groundwater samples. The results for this compound were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

All continuing calibration compounds were compliant with a minimum RRF of 0.05 and a maximum percent difference (%D) within  $\pm 20\%$  with the exception of cyclohexane (40.7%D) in the continuing calibration associated with all groundwater samples. Therefore, the sample results for this compound were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

### Usability

All volatile groundwater sample results were considered usable following data validation.

### Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The volatile groundwater data presented by Chemtech were 100% complete (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A-2.

## 2.2.2 Semivolatiles

The following items were reviewed for compliancy in the semivolatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS recoveries
- Laboratory method blank and field equipment blank contamination
- GC/MS instrument performance
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD precision and accuracy, LCS recoveries, and initial and continuing calibrations as discussed below.

### MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the low MSD accuracy result for 2,3,4,6-tetrachlorophenol during the spiked analyses of sample MW-3. Validation qualification of the parent sample was not required.

### LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the high LCS recoveries for 2-methylphenol (99%R; QC limit 32-94%R), 3+4-methylphenols (95%R; QC limit 24-91%R), and hexachlorocyclopentadiene (150%R; QC limit 42-121%R) associated with all groundwater samples. Validation qualification of the groundwater samples was not required since these compounds were not detected.

### Initial and Continuing Calibrations

All initial calibration compounds were compliant with a minimum relative response factor (RRF) of 0.05 and a maximum percent relative standard deviation (%RSD) of 20% with the exception of 2,4-dinitrophenol (29.7%RSD) in the initial calibration associated with all

groundwater samples. The results for this compound were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

All continuing calibration compounds were compliant with a minimum RRF of 0.05 and a maximum percent difference (%D) within  $\pm 20\%$  with hexachlorocyclopentadiene (39.2%D), 2-nitroaniline (24.3%D), 2,6-dinitrotoluene (20.6%D), 4-nitroaniline (24.9%D), bis(2-ethylhexyl)phthalate (22%D), and di-n-octylphthalate (27.8%D) in the continuing calibration associated with all groundwater samples. Therefore, the sample results for these compounds were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

### Usability

All semivolatile groundwater sample results were considered usable following data validation.

### Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The semivolatile groundwater data presented by Chemtech were 100% complete (i.e., usable). The validated semivolatile laboratory data are tabulated and presented in Attachment A-2.

## **2.2.3 Inorganics**

The following items were reviewed for compliancy in the inorganics analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank, and field equipment blank contamination
- Inductively coupled plasma (ICP) interference check sample (ICS)
- Matrix spike (MS) recoveries
- Laboratory duplicate precision
- Field duplicate precision
- Laboratory control sample (LCS) recoveries
- ICP serial dilutions
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination and field duplicate precision as discussed below.

#### Blank Contamination

The field equipment blank FB112713 associated with the groundwater samples contained calcium at a concentration of 1200 µg/L. Validation qualification was not required since samples were not affected by the contamination in this blank.

#### Field Duplicate Precision

All field duplicate precision results were considered acceptable for the field duplicate pair MW-3 and MW-3A with the exception of the precision for chromium. Therefore, the chromium results were considered estimated with the positive result qualified “J” and the nondetected result qualified “UJ” for the affected parent sample and its field duplicate.

#### Usability

All inorganics groundwater sample results were considered usable following data validation.

#### Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The inorganics groundwater data presented by Chemtech were 100% complete (i.e., usable). The validated groundwater inorganics laboratory data are tabulated and presented in Attachment A-2.

**ATTACHMENT A**  
**VALIDATED LABORATORY DATA**

**ATTACHMENT A-1**

**VALIDATED LABORATORY DATA FOR SOIL SAMPLES**

		Dup of MW-1(5-10)-20131104				
Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	MW-1 MW-1(5-10)-20131104 E4340-01 5 - 10 ft CTECH E4340 SOIL 11/4/2013 10:50 2/4/2014	MW-1 MW-11(5-10)-20131104 E4340-05 5 - 10 ft CTECH E4340 SOIL 11/4/2013 10:40 2/4/2014	MW-1 MW-1(10-15)-20131104 E4340-02 10 - 15 ft CTECH E4340 SOIL 11/4/2013 11:00 2/4/2014	SB-1 SB-1(10-12)-20131101 E4277-25 10 - 12 ft CTECH E4277 SOIL 11/1/2013 13:45 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>VOLATILES</b>					
71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/kg	0.82 U	0.72 U	0.71 U	0.43 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/kg	1.6 U	1.4 U	1.4 U	0.84 U
75-34-3	1,1-DICHLOROETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
75-35-4	1,1-DICHLOROETHENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	1.6 U	1.4 U	1.4 U	0.81 U
106-93-4	1,2-DIBROMOETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
95-50-1	1,2-DICHLOROBENZENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
107-06-2	1,2-DICHLOROETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
78-87-5	1,2-DICHLOROPROPANE	ug/kg	0.46 U	0.4 U	0.4 U	0.24 U
541-73-1	1,3-DICHLOROBENZENE	ug/kg	0.66 U	0.58 U	0.57 U	0.35 U
106-46-7	1,4-DICHLOROBENZENE	ug/kg	0.73 U	0.64 U	0.64 U	0.38 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/kg	180 U	160 U	160 U	93.3 U
591-78-6	2-HEXANONE	ug/kg	4.5 U	3.9 U	3.9 U	2.3 U
67-64-1	ACETONE	ug/kg	7.7 J	3.9 U	16 J	2.3 U
71-43-2	BENZENE	ug/kg	0.68 U	0.59 U	0.59 U	0.35 U
74-97-5	BROMOCHLOROMETHANE	ug/kg	0.89 U	0.78 U	0.78 UJ	0.47 U
75-27-4	BROMODICHLOROMETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
75-25-2	BROMOFORM	ug/kg	1.3 U	1.2 U	1.1 U	0.69 U
74-83-9	BROMOMETHANE	ug/kg	1.8 U	1.6 U	1.6 U	0.93 U
75-15-0	CARBON DISULFIDE	ug/kg	0.89 U	0.78 U	2.5 J	0.47 U
56-23-5	CARBON TETRACHLORIDE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
108-90-7	CHLOROBENZENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
75-00-3	CHLOROETHANE	ug/kg	0.89 UJ	0.78 UJ	0.78 U	0.47 UJ
67-66-3	CHLOROFORM	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
74-87-3	CHLOROMETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 UJ
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
110-82-7	CYCLOHEXANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
124-48-1	DIBROMOCHLOROMETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
100-41-4	ETHYLBENZENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/kg	0.86 U	0.75 U	0.75 U	0.45 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/kg	1.3 U	1.1 U	1.1 U	0.67 U
79-20-9	METHYL ACETATE	ug/kg	1.8 U	1.6 U	1.6 U	0.93 U
78-93-3	METHYL ETHYL KETONE	ug/kg	5.5 U	4.8 U	4.8 U	2.9 U
108-10-1	METHYL ISOBUTYL KETONE	ug/kg	4.5 U	3.9 U	3.9 U	2.3 U
108-87-2	METHYLCYCLOHEXANE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
75-09-2	METHYLENE CHLORIDE	ug/kg	6.8 J	7.8 U	9.4 UJ	3.7 J
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
100-42-5	STYRENE	ug/kg	0.8 U	0.7 U	0.7 U	0.42 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
108-88-3	TOLUENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/kg	0.89 UJ	0.78 UJ	0.78 U	0.47 UJ
75-01-4	VINYL CHLORIDE	ug/kg	0.89 U	0.78 U	0.78 U	0.47 U

		Dup of MW-1(5-10)-20131104				
Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	MW-1 MW-1(5-10)-20131104 E4340-01 5 - 10 ft CTECH E4340 SOIL 11/4/2013 10:50 2/4/2014	MW-1 MW-11(5-10)-20131104 E4340-05 5 - 10 ft CTECH E4340 SOIL 11/4/2013 10:40 2/4/2014	MW-1 MW-1(10-15)-20131104 E4340-02 10 - 15 ft CTECH E4340 SOIL 11/4/2013 11:00 2/4/2014	SB-1 SB-1(10-12)-20131101 E4277-25 10 - 12 ft CTECH E4277 SOIL 11/1/2013 13:45 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>SEMIVOLATILES</b>					
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/kg	20.2 U	17.7 U	19.5 U	15.2 U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/kg	20.2 U	17.7 U	19.5 U	15.2 U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/kg	36.1 U	31.6 U	34.8 U	27.2 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/kg	15.7 U	13.8 U	15.2 U	11.9 U
120-83-2	2,4-DICHLOROPHENOL	ug/kg	19.6 U	17.2 U	18.9 U	14.8 U
105-67-9	2,4-DIMETHYLPHENOL	ug/kg	29.2 U	25.5 U	28.1 U	22 U
51-28-5	2,4-DINITROPHENOL	ug/kg	52.3 UJ	45.8 UJ	50.5 UJ	39.4 UJ
121-14-2	2,4-DINITROTOLUENE	ug/kg	15.4 UJ	13.5 UJ	14.9 U	11.6 U
606-20-2	2,6-DINITROTOLUENE	ug/kg	21 U	18.4 U	20.2 U	15.8 U
91-58-7	2-CHLORONAPHTHALENE	ug/kg	11.7 U	10.3 U	11.3 U	8.8 U
95-57-8	2-CHLOROPHENOL	ug/kg	27.2 U	23.8 U	26.2 U	20.5 U
91-57-6	2-METHYLNAPHTHALENE	ug/kg	13 U	140 J	12.5 U	9.8 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/kg	27.9 U	24.4 U	26.9 U	21 U
88-74-4	2-NITROANILINE	ug/kg	22.8 UJ	20 UJ	22 U	17.2 U
88-75-5	2-NITROPHENOL	ug/kg	24.8 U	21.7 U	24 U	18.7 U
MEPH3ME	3- AND 4- METHYLPHENOL (TOTAL)	ug/kg	26.7 U	23.4 U	25.7 U	20.1 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/kg	33 U	28.9 U	31.9 U	24.9 U
99-09-2	3-NITROANILINE	ug/kg	33 U	28.9 U	31.9 U	24.9 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/kg	29.5 UJ	25.8 UJ	28.4 UJ	22.2 UJ
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/kg	10 U	8.8 U	9.7 U	7.6 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/kg	22.8 U	20 U	22 U	17.2 U
106-47-8	4-CHLOROANILINE	ug/kg	36.3 U	31.7 U	35 U	27.3 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/kg	27.9 U	24.4 U	26.9 U	21 U
100-01-6	4-NITROANILINE	ug/kg	67 UJ	58.6 UJ	64.6 U	50.4 U
100-02-7	4-NITROPHENOL	ug/kg	95.5 UJ	83.6 UJ	92.1 U	72 U
83-32-9	ACENAPHTHENE	ug/kg	14.5 U	90.5 J	14 U	10.9 U
208-96-8	ACENAPHTHYLENE	ug/kg	240 J	260 J	12.5 U	9.8 U
98-86-2	ACETOPHENONE	ug/kg	15.7 U	13.8 U	15.2 U	11.9 U
120-12-7	ANTHRACENE	ug/kg	190 J	240 J	120 J	7.9 U
1912-24-9	ATRAZINE	ug/kg	27.2 U	23.8 U	26.2 U	20.5 U
100-52-7	BENZALDEHYDE	ug/kg	R	R	R	R
56-55-3	BENZO(A)ANTHRACENE	ug/kg	360 J	560	340 J	18.5 U
50-32-8	BENZO(A)PYRENE	ug/kg	440 J	630	290 J	8.4 U
205-99-2	BENZO(B)FLUORANTHENE	ug/kg	480 J	720	360 J	12.7 U
191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	300 J	420 J	190 J	15.7 U
207-08-9	BENZO(K)FLUORANTHENE	ug/kg	150 J	240 J	110 J	18.2 U
85-68-7	BENZYL BUTYL PHTHALATE	ug/kg	24.7 U	21.6 U	23.8 U	18.6 U
92-52-4	BIPHENYL (DIPHENYL)	ug/kg	19.4 U	17 U	18.8 U	14.6 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/kg	29.6 U	25.9 U	28.6 U	22.3 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/kg	24.7 U	21.6 U	23.8 U	18.6 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	21.3 U	18.6 U	20.5 U	16 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	18.2 U	15.9 U	17.6 U	13.7 UJ
105-60-2	CAPROLACTAM	ug/kg	23.9 U	20.9 U	23.1 U	18 U
86-74-8	CARBAZOLE	ug/kg	11.3 U	9.9 U	10.9 U	8.5 U
218-01-9	CHRYSENE	ug/kg	400 J	630	260 J	17.6 U
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/kg	14.8 U	110 J	14.3 U	11.2 U
132-64-9	DIBENZOFURAN	ug/kg	20.1 U	17.6 U	19.3 U	15.1 U
84-66-2	DIETHYL PHTHALATE	ug/kg	8 U	7 U	7.7 U	6 U
131-11-3	DIMETHYL PHTHALATE	ug/kg	610	800	530	480
84-74-2	DI-N-BUTYL PHTHALATE	ug/kg	40.4 U	35.4 U	39 U	30.5 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/kg	5.9 U	5.1 U	5.7 U	4.4 UJ
206-44-0	FLUORANTHENE	ug/kg	650	990	520	7.8 U
86-73-7	FLUORENE	ug/kg	100 J	120 J	18.8 U	14.6 U
118-74-1	HEXACHLOROBENZENE	ug/kg	21 U	18.4 U	20.2 U	15.8 U
87-68-3	HEXACHLOROBUTADIENE	ug/kg	18.7 U	16.3 U	18 U	14.1 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/kg	12.5 U	10.9 U	12.1 U	9.4 UJ
67-72-1	HEXACHLOROETHANE	ug/kg	23 U	20.1 U	22.2 U	17.3 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/kg	210 J	330 J	170 J	12.9 U
78-59-1	ISOPHORONE	ug/kg	17 U	14.9 U	16.4 U	12.8 U



		Dup of MW-1(5-10)-20131104				
Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID:	MW-1	MW-1	MW-1	SB-1
		Sample ID:	MW-1(5-10)-20131104	MW-11(5-10)-20131104	MW-1(10-15)-20131104	SB-1(10-12)-20131101
		Lab Sample Id:	E4340-01	E4340-05	E4340-02	E4277-25
		Depth:	5 - 10 ft	5 - 10 ft	10 - 15 ft	10 - 12 ft
		Source:	CTECH	CTECH	CTECH	CTECH
SDG:	E4340	E4340	E4340	E4277		
Matrix:	SOIL	SOIL	SOIL	SOIL		
Sampled:	11/4/2013 10:50	11/4/2013 10:40	11/4/2013 11:00	11/1/2013 13:45		
Validated:	2/4/2014	2/4/2014	2/4/2014	2/4/2014		
CAS NO.	COMPOUND	UNITS:				
<b>SEMIVOLATILES</b>						
91-20-3	NAPHTHALENE	ug/kg	230 J	300 J	17.1 U	13.4 U
98-95-3	NITROBENZENE	ug/kg	19.4 U	17 U	18.8 U	14.6 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/kg	25.9 U	22.7 U	25 U	19.5 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/kg	12.3 U	10.8 U	11.9 U	9.3 U
87-86-5	PENTACHLOROPHENOL	ug/kg	35.2 U	30.8 U	33.9 U	26.5 U
85-01-8	PHENANTHRENE	ug/kg	450 J	620	320 J	10.5 U
108-95-2	PHENOL	ug/kg	11.9 UJ	10.4 UJ	11.5 U	9 UJ
129-00-0	PYRENE	ug/kg	690	1000	540	9.3 U
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	mg/kg	14900 J	13800 J	13000 J	12000
7440-36-0	ANTIMONY	mg/kg	0.751 UJ	0.626 UJ	0.707 UJ	0.543 UJ
7440-38-2	ARSENIC	mg/kg	10.8	6.94	8.22	1.48
7440-39-3	BARIUM	mg/kg	134 J	108 J	80.4 J	71
7440-41-7	BERYLLIUM	mg/kg	0.435	0.361	0.52	0.365
7440-43-9	CADMIUM	mg/kg	2.6	2.18	0.076 U	0.058 U
7440-70-2	CALCIUM	mg/kg	4200 J	4200 J	4300 J	8100
7440-47-3	CHROMIUM, TOTAL	mg/kg	36.1 J	30.1 J	28.3 J	25.1
7440-48-4	COBALT	mg/kg	12.4 J	10.47 J	14.1 J	13.2
7440-50-8	COPPER	mg/kg	99.3 J	53.8 J	49.1 J	21.1
7439-89-6	IRON	mg/kg	36900	33900	34700	22600
7439-92-1	LEAD	mg/kg	493	352	390	17.3 J
7439-95-4	MAGNESIUM	mg/kg	5500 J	5000 J	6800 J	5600
7439-96-5	MANGANESE	mg/kg	323 J	270 J	641 J	440
7439-97-6	MERCURY	mg/kg	2.33	1.54	0.268	0.039
7440-02-0	NICKEL	mg/kg	29.4	25.3	29.6	21.6 J
7440-09-7	POTASSIUM	mg/kg	2900 J	2700 J	3300 J	2000 J
7782-49-2	SELENIUM	mg/kg	2.56	2.62	2.74	1.36
7440-22-4	SILVER	mg/kg	1.43	1.18	1.82	1.3
7440-23-5	SODIUM	mg/kg	271 J	245 J	607 J	116
7440-28-0	THALLIUM	mg/kg	0.362 U	0.302 U	0.341 U	0.262 U
7440-62-2	VANADIUM	mg/kg	50.5 J	44.9 J	50.5 J	40
7440-66-6	ZINC	mg/kg	346	329	227	58.5
57-12-5	CYANIDE	mg/kg	0.649	0.672	0.244 J	0.093 J

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-1 SB-1(15-17)-20131101 E4277-26 15 - 17 ft CTECH E4277 SOIL 11/1/2013 13:55 2/4/2014	SB-2 SB-2(5-10)-20131101 E4277-21 5 - 10 ft CTECH E4277 SOIL 11/1/2013 9:45 2/4/2014	SB-2 SB-2(10-15)-20131101 E4277-22 10 - 15 ft CTECH E4277 SOIL 11/1/2013 9:55 2/4/2014	SB-3 SB-3(5-10)-20131101 E4277-23 5 - 10 ft CTECH E4277 SOIL 11/1/2013 11:15 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>VOLATILES</b>					
71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/kg	0.56 U	0.71 UJ	0.94 UJ	0.66 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/kg	1.1 U	1.4 U	1.8 U	1.3 U
75-34-3	1,1-DICHLOROETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
75-35-4	1,1-DICHLOROETHENE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	0.61 U	0.77 UJ	1 UJ	0.72 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/kg	0.61 U	0.77 UJ	1 UJ	0.72 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	1.1 U	1.3 UJ	1.8 UJ	1.3 U
106-93-4	1,2-DIBROMOETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
95-50-1	1,2-DICHLOROBENZENE	ug/kg	0.61 U	0.77 UJ	1 UJ	0.72 U
107-06-2	1,2-DICHLOROETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
78-87-5	1,2-DICHLOROPROPANE	ug/kg	0.32 U	0.4 U	0.53 U	0.37 U
541-73-1	1,3-DICHLOROBENZENE	ug/kg	0.45 U	0.57 UJ	0.75 UJ	0.53 U
106-46-7	1,4-DICHLOROBENZENE	ug/kg	0.5 U	0.64 UJ	0.83 UJ	0.59 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/kg	120 U	150 U	200 U	140 U
591-78-6	2-HEXANONE	ug/kg	3 U	3.9 U	5.1 U	3.6 U
67-64-1	ACETONE	ug/kg	3 U	3.9 U	5.1 U	3.6 U
71-43-2	BENZENE	ug/kg	0.46 U	0.59 U	0.77 U	0.55 U
74-97-5	BROMOCHLOROMETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
75-27-4	BROMODICHLOROMETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
75-25-2	BROMOFORM	ug/kg	0.9 U	1.1 U	1.5 U	1.1 U
74-83-9	BROMOMETHANE	ug/kg	1.2 U	1.5 U	2 U	1.4 U
75-15-0	CARBON DISULFIDE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
56-23-5	CARBON TETRACHLORIDE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
108-90-7	CHLOROBENZENE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
75-00-3	CHLOROETHANE	ug/kg	0.61 UJ	0.77 UJ	1 UJ	0.72 UJ
67-66-3	CHLOROFORM	ug/kg	0.61 U	0.77 U	1 U	0.72 U
74-87-3	CHLOROMETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/kg	0.61 UJ	0.77 UJ	1 UJ	0.72 UJ
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
110-82-7	CYCLOHEXANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
124-48-1	DIBROMOCHLOROMETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
100-41-4	ETHYLBENZENE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/kg	0.58 U	0.74 UJ	0.98 UJ	0.69 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/kg	0.88 U	1.1 U	1.5 U	1 U
79-20-9	METHYL ACETATE	ug/kg	1.2 U	1.5 U	2 U	1.4 U
78-93-3	METHYL ETHYL KETONE	ug/kg	3.8 U	4.8 U	6.3 U	4.5 U
108-10-1	METHYL ISOBUTYL KETONE	ug/kg	3 U	3.9 U	5.1 U	3.6 U
108-87-2	METHYLCYCLOHEXANE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
75-09-2	METHYLENE CHLORIDE	ug/kg	5.2 J	3.4 J	6 J	6.3 J
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/kg	0.61 U	0.77 U	1 U	0.72 U
100-42-5	STYRENE	ug/kg	0.55 U	0.7 U	0.92 U	0.65 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/kg	0.61 U	0.77 U	1 U	0.72 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/kg	0.61 U	0.77 U	1 U	0.72 U
108-88-3	TOLUENE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/kg	0.61 U	0.77 U	1 U	0.72 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/kg	0.61 U	0.77 U	1 U	0.72 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/kg	0.61 UJ	0.77 UJ	1 UJ	0.72 UJ
75-01-4	VINYL CHLORIDE	ug/kg	0.61 U	0.77 U	1 U	0.72 U

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-1 SB-1(15-17)-20131101 E4277-26 15 - 17 ft CTECH E4277 SOIL 11/1/2013 13:55 2/4/2014	SB-2 SB-2(5-10)-20131101 E4277-21 5 - 10 ft CTECH E4277 SOIL 11/1/2013 9:45 2/4/2014	SB-2 SB-2(10-15)-20131101 E4277-22 10 - 15 ft CTECH E4277 SOIL 11/1/2013 9:55 2/4/2014	SB-3 SB-3(5-10)-20131101 E4277-23 5 - 10 ft CTECH E4277 SOIL 11/1/2013 11:15 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>SEMIVOLATILES</b>					
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/kg	17.9 U	17.4 U	21.2 U	170 U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/kg	17.9 U	17.4 U	21.2 U	170 U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/kg	31.9 U	31.2 U	37.8 U	310 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/kg	13.9 U	13.6 U	16.5 U	130 U
120-83-2	2,4-DICHLOROPHENOL	ug/kg	17.3 U	16.9 U	20.5 U	170 U
105-67-9	2,4-DIMETHYLPHENOL	ug/kg	25.8 U	25.2 U	30.6 U	250 U
51-28-5	2,4-DINITROPHENOL	ug/kg	46.2 UJ	45.1 UJ	54.8 UJ	440 UJ
121-14-2	2,4-DINITROTOLUENE	ug/kg	13.6 U	13.3 U	16.2 U	130 U
606-20-2	2,6-DINITROTOLUENE	ug/kg	18.5 U	18.1 U	22 U	180 U
91-58-7	2-CHLORONAPHTHALENE	ug/kg	10.4 U	10.1 U	12.3 U	99.7 U
95-57-8	2-CHLOROPHENOL	ug/kg	24 U	23.4 U	28.5 U	230 U
91-57-6	2-METHYLNAPHTHALENE	ug/kg	11.4 U	11.2 U	13.6 U	110 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/kg	24.7 U	24.1 U	29.3 U	240 U
88-74-4	2-NITROANILINE	ug/kg	20.2 U	19.7 U	23.9 U	190 U
88-75-5	2-NITROPHENOL	ug/kg	21.9 U	21.4 U	26 U	210 U
MEPH3ME	3- AND 4- METHYLPHENOL (TOTAL)	ug/kg	23.6 U	23 U	28 U	230 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/kg	29.2 U	28.5 U	34.6 U	280 U
99-09-2	3-NITROANILINE	ug/kg	29.2 U	28.5 U	34.6 U	280 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/kg	26 U	25.4 UJ	30.9 UJ	250 UJ
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/kg	8.9 U	8.7 U	10.5 U	85.3 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/kg	20.2 U	19.7 U	23.9 U	190 U
106-47-8	4-CHLOROANILINE	ug/kg	32 U	31.3 U	38 U	310 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/kg	24.7 U	24.1 U	29.3 U	240 U
100-01-6	4-NITROANILINE	ug/kg	59.1 U	57.8 U	70.2 U	570 U
100-02-7	4-NITROPHENOL	ug/kg	84.4 U	82.4 U	100 U	810 U
83-32-9	ACENAPHTHENE	ug/kg	12.8 U	12.5 U	360 J	120 U
208-96-8	ACENAPHTHYLENE	ug/kg	11.4 U	190 J	230 J	110 U
98-86-2	ACETOPHENONE	ug/kg	13.9 U	13.6 U	16.5 U	130 U
120-12-7	ANTHRACENE	ug/kg	9.3 U	380 J	1500	970 J
1912-24-9	ATRAZINE	ug/kg	24 U	23.4 U	28.5 U	230 U
100-52-7	BENZALDEHYDE	ug/kg	R	R	R	R
56-55-3	BENZO(A)ANTHRACENE	ug/kg	21.7 U	1400	3600	6300
50-32-8	BENZO(A)PYRENE	ug/kg	9.8 U	1600	3200	7200
205-99-2	BENZO(B)FLUORANTHENE	ug/kg	14.9 U	1800	3800	8700
191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	18.4 U	1200	1800	5100
207-08-9	BENZO(K)FLUORANTHENE	ug/kg	21.4 U	840	1100	3300 J
85-68-7	BENZYL BUTYL PHTHALATE	ug/kg	21.8 U	310 J	25.9 U	210 U
92-52-4	BIPHENYL (DIPHENYL)	ug/kg	17.2 U	16.8 U	20.4 U	170 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/kg	26.2 U	25.6 U	31.1 U	250 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/kg	21.8 U	21.3 U	25.9 U	210 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	18.8 U	18.4 U	22.3 U	180 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	16.1 U	15.7 UJ	19.1 UJ	150 UJ
105-60-2	CAPROLACTAM	ug/kg	21.1 U	20.6 U	25.1 U	200 U
86-74-8	CARBAZOLE	ug/kg	9.9 U	92.8 J	290 J	95.8 U
218-01-9	CHRYSENE	ug/kg	20.6 U	1400	2400	5900
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/kg	13.1 U	250 J	690	1200 J
132-64-9	DIBENZOFURAN	ug/kg	17.7 U	17.3 U	350 J	170 U
84-66-2	DIETHYL PHTHALATE	ug/kg	7.1 U	6.9 U	8.4 U	68.2 U
131-11-3	DIMETHYL PHTHALATE	ug/kg	440 J	450	890	120 U
84-74-2	DI-N-BUTYL PHTHALATE	ug/kg	35.7 U	34.9 U	42.4 U	340 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/kg	5.2 U	5.1 UJ	6.1 UJ	49.9 UJ
206-44-0	FLUORANTHENE	ug/kg	9.1 U	2000	7000	9900
86-73-7	FLUORENE	ug/kg	17.2 U	130 J	740	170 U
118-74-1	HEXACHLOROBENZENE	ug/kg	18.5 U	18.1 U	22 U	180 U
87-68-3	HEXACHLOROBUTADIENE	ug/kg	16.5 U	16.1 U	19.6 U	160 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/kg	11 U	10.8 UJ	13.1 UJ	110 UJ
67-72-1	HEXACHLOROETHANE	ug/kg	20.3 U	19.8 U	24.1 U	200 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/kg	15.1 U	970	1700	4500
78-59-1	ISOPHORONE	ug/kg	15 U	14.6 U	17.8 U	140 U

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-1 SB-1(15-17)-20131101 E4277-26 15 - 17 ft CTECH E4277 SOIL 11/1/2013 13:55 2/4/2014	SB-2 SB-2(5-10)-20131101 E4277-21 5 - 10 ft CTECH E4277 SOIL 11/1/2013 9:45 2/4/2014	SB-2 SB-2(10-15)-20131101 E4277-22 10 - 15 ft CTECH E4277 SOIL 11/1/2013 9:55 2/4/2014	SB-3 SB-3(5-10)-20131101 E4277-23 5 - 10 ft CTECH E4277 SOIL 11/1/2013 11:15 2/4/2014
CAS NO.	COMPOUND	UNITS:				
<b>SEMIVOLATILES</b>						
91-20-3	NAPHTHALENE	ug/kg	15.7 U	290 J	200 J	150 U
98-95-3	NITROBENZENE	ug/kg	17.2 UJ	16.8 U	20.4 U	170 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/kg	22.9 U	22.9 U	27.2 U	220 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/kg	10.9 U	10.7 U	12.9 U	100 U
87-86-5	PENTACHLOROPHENOL	ug/kg	31.1 UJ	30.4 U	36.9 U	300 U
85-01-8	PHENANTHRENE	ug/kg	12.3 U	1200	5000	4300
108-95-2	PHENOL	ug/kg	10.5 U	10.3 UJ	12.5 UJ	100 UJ
129-00-0	PYRENE	ug/kg	10.9 U	1800	5500	7000
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	mg/kg	5900	3100	11100	3900
7440-36-0	ANTIMONY	mg/kg	0.639 UJ	2.67 J	0.744 UJ	9.52 J
7440-38-2	ARSENIC	mg/kg	2.44	10.67	10.43	27.6
7440-39-3	BARIUM	mg/kg	17.6	416	168	354
7440-41-7	BERYLLIUM	mg/kg	0.16 J	0.087 J	0.426	0.065 U
7440-43-9	CADMIUM	mg/kg	0.372	1.33	0.08 U	2.73
7440-70-2	CALCIUM	mg/kg	1300	13500	5900	38300
7440-47-3	CHROMIUM, TOTAL	mg/kg	14.9	30.7	25.9	24.9
7440-48-4	COBALT	mg/kg	5.15	6.78	12.3	9.71
7440-50-8	COPPER	mg/kg	10.34	595	35.3	361
7439-89-6	IRON	mg/kg	10500	31000	32900	68200
7439-92-1	LEAD	mg/kg	4.24 J	727 J	168 J	1500 J
7439-95-4	MAGNESIUM	mg/kg	2400	1800	6100	3800
7439-96-5	MANGANESE	mg/kg	129	229	695	331
7439-97-6	MERCURY	mg/kg	0.007 U	0.67	0.765	3.85
7440-02-0	NICKEL	mg/kg	10.84 J	17.8 J	26.7 J	35.7 J
7440-09-7	POTASSIUM	mg/kg	1300 J	906 J	2700 J	476 J
7782-49-2	SELENIUM	mg/kg	0.556 J	2.96	2.22	3.95
7440-22-4	SILVER	mg/kg	0.252 J	2.21	2.29	4.94
7440-23-5	SODIUM	mg/kg	762	649	1100	658
7440-28-0	THALLIUM	mg/kg	0.308 U	0.322 U	0.359 U	0.292 U
7440-62-2	VANADIUM	mg/kg	23.2	17.7	43.9	23.4
7440-66-6	ZINC	mg/kg	26.2	830	187	1100
57-12-5	CYANIDE	mg/kg	0.045 U	1.86	0.158 J	2.94

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-3 SB-3(12-14)-20131101 E4277-24 12 - 14 ft CTECH E4277 SOIL 11/1/2013 11:25 2/4/2014	SB-4 SB-4(15-17)-20131031 E4277-19 15 - 17 ft CTECH E4277 SOIL 10/31/2013 14:15 2/4/2014	SB-4 SB-4(19-20)-20131031 E4277-20 19 - 20 ft CTECH E4277 SOIL 10/31/2013 14:15 2/4/2014	SB-5 SB-5(5-10)-20131031 E4277-17 5 - 10 ft CTECH E4277 SOIL 10/31/2013 12:40 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>VOLATILES</b>					
71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/kg	0.88 U	360 U	1.2 U	0.65 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/kg	1.7 U	710 U	2.3 U	1.3 U
75-34-3	1,1-DICHLOROETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
75-35-4	1,1-DICHLOROETHENE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	0.96 U	9900	1.3 U	0.71 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/kg	0.96 U	63200 J	1.3 U	0.71 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	1.7 U	690 U	2.2 U	1.2 U
106-93-4	1,2-DIBROMOETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
95-50-1	1,2-DICHLOROBENZENE	ug/kg	0.96 U	400 U	1.3 UJ	0.71 U
107-06-2	1,2-DICHLOROETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
78-87-5	1,2-DICHLOROPROPANE	ug/kg	0.5 U	210 U	0.65 U	0.37 U
541-73-1	1,3-DICHLOROBENZENE	ug/kg	0.71 U	290 U	0.93 U	0.52 U
106-46-7	1,4-DICHLOROBENZENE	ug/kg	0.79 U	320 U	2.5 J	0.58 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/kg	190 U	79200 UJ	250 U	140 U
591-78-6	2-HEXANONE	ug/kg	4.8 U	2000 UJ	6.3 U	3.5 U
67-64-1	ACETONE	ug/kg	4.8 U	2000 UJ	40.8 J	3.5 U
71-43-2	BENZENE	ug/kg	0.73 U	85300	38.4	0.54 U
74-97-5	BROMOCHLOROMETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
75-27-4	BROMODICHLOROMETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
75-25-2	BROMOFORM	ug/kg	1.4 U	590 UJ	1.9 U	1 U
74-83-9	BROMOMETHANE	ug/kg	1.9 U	790 U	2.5 U	1.4 U
75-15-0	CARBON DISULFIDE	ug/kg	0.96 U	400 U	8 J	0.71 U
56-23-5	CARBON TETRACHLORIDE	ug/kg	0.96 U	400 UJ	1.3 U	0.71 U
108-90-7	CHLOROBENZENE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
75-00-3	CHLOROETHANE	ug/kg	0.96 UJ	400 U	1.3 U	0.71 UJ
67-66-3	CHLOROFORM	ug/kg	0.96 U	400 U	1.3 U	0.71 U
74-87-3	CHLOROMETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/kg	0.96 UJ	400 U	1.3 U	0.71 UJ
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
110-82-7	CYCLOHEXANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
124-48-1	DIBROMOCHLOROMETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
100-41-4	ETHYLBENZENE	ug/kg	0.96 U	518300 J	37.9	0.71 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/kg	0.92 U	29000 J	6.5 J	0.68 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/kg	1.4 U	438100	14.6 J	1 U
79-20-9	METHYL ACETATE	ug/kg	1.9 U	790 U	2.5 U	1.4 U
78-93-3	METHYL ETHYL KETONE	ug/kg	6 U	2500 UJ	7.8 U	4.4 U
108-10-1	METHYL ISOBUTYL KETONE	ug/kg	4.8 U	2000 UJ	6.3 U	3.5 U
108-87-2	METHYLCYCLOHEXANE	ug/kg	0.96 U	660 J	1.3 U	0.71 U
75-09-2	METHYLENE CHLORIDE	ug/kg	6.9 J	1700 J	17.5	0.71 U
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/kg	0.96 U	112900	16	0.71 U
100-42-5	STYRENE	ug/kg	0.87 U	360 U	1.1 U	0.64 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/kg	0.96 U	400 U	10.6 J	0.71 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/kg	0.96 U	400 U	1.3 U	0.71 U
108-88-3	TOLUENE	ug/kg	0.96 U	18400	1.3 U	0.71 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/kg	0.96 U	400 U	1.3 U	0.71 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/kg	0.96 U	400 U	1.3 U	0.71 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/kg	0.96 UJ	400 U	1.3 U	0.71 UJ
75-01-4	VINYL CHLORIDE	ug/kg	0.96 U	400 U	1.3 U	0.71 U

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-3 SB-3(12-14)-20131101 E4277-24 12 - 14 ft CTECH E4277 SOIL 11/1/2013 11:25 2/4/2014	SB-4 SB-4(15-17)-20131031 E4277-19 15 - 17 ft CTECH E4277 SOIL 10/31/2013 14:15 2/4/2014	SB-4 SB-4(19-20)-20131031 E4277-20 19 - 20 ft CTECH E4277 SOIL 10/31/2013 14:15 2/4/2014	SB-5 SB-5(10)-20131031 E4277-17 5 - 10 ft CTECH E4277 SOIL 10/31/2013 12:40 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>SEMIVOLATILES</b>					
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/kg	23.2 U	200 U	23 U	16.9 U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/kg	23.2 U	200 U	23 U	16.9 U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/kg	41.5 U	350 U	41 U	30.2 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/kg	18.1 U	150 U	17.9 U	13.2 U
120-83-2	2,4-DICHLOROPHENOL	ug/kg	22.5 U	190 U	22.3 U	16.4 U
105-67-9	2,4-DIMETHYLPHENOL	ug/kg	33.5 U	280 U	33.1 U	24.4 U
51-28-5	2,4-DINITROPHENOL	ug/kg	60.2 UJ	510 UJ	59.4 UJ	43.8 UJ
121-14-2	2,4-DINITROTOLUENE	ug/kg	17.7 U	150 U	17.5 U	12.9 U
606-20-2	2,6-DINITROTOLUENE	ug/kg	24.1 U	200 U	23.8 U	17.6 U
91-58-7	2-CHLORONAPHTHALENE	ug/kg	13.5 U	110 U	13.3 U	9.8 U
95-57-8	2-CHLOROPHENOL	ug/kg	31.2 U	260 U	30.8 U	22.7 U
91-57-6	2-METHYLNAPHTHALENE	ug/kg	14.9 U	766400	160 J	300 J
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/kg	32.1 U	270 U	31.7 U	23.4 U
88-74-4	2-NITROANILINE	ug/kg	26.3 U	220 U	25.9 U	19.1 U
88-75-5	2-NITROPHENOL	ug/kg	28.6 U	240 U	28.2 U	20.8 U
MEPH3ME	3- AND 4- METHYLPHENOL (TOTAL)	ug/kg	260 J	260 U	30.3 U	22.4 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/kg	38 U	320 U	37.5 U	27.6 U
99-09-2	3-NITROANILINE	ug/kg	38 U	320 U	37.5 U	27.6 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/kg	33.9 UJ	280 UJ	33.5 UJ	24.7 UJ
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/kg	11.5 U	96.9 U	11.4 U	8.4 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/kg	26.3 U	220 U	25.9 U	19.1 U
106-47-8	4-CHLOROANILINE	ug/kg	41.7 U	350 U	41.2 U	30.4 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/kg	32.1 U	270 U	31.7 U	23.4 U
100-01-6	4-NITROANILINE	ug/kg	77 U	650 U	76 U	56.1 U
100-02-7	4-NITROPHENOL	ug/kg	110 U	920 U	110 U	80 U
83-32-9	ACENAPHTHENE	ug/kg	16.7 U	233200	16.5 U	12.1 U
208-96-8	ACENAPHTHYLENE	ug/kg	14.9 U	33300	14.7 U	2400
98-86-2	ACETOPHENONE	ug/kg	18.1 U	150 U	17.9 U	13.2 U
120-12-7	ANTHRACENE	ug/kg	12.1 U	133600	130 J	5400
1912-24-9	ATRAZINE	ug/kg	31.2 U	260 U	30.8 U	22.7 U
100-52-7	BENZALDEHYDE	ug/kg	R	R	R	R
56-55-3	BENZO(A)ANTHRACENE	ug/kg	310 J	80200	230 J	8200
50-32-8	BENZO(A)PYRENE	ug/kg	310 J	72200	210 J	7300
205-99-2	BENZO(B)FLUORANTHENE	ug/kg	370 J	59100	240 J	7700
191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	200 J	29200	23.7 U	3100
207-08-9	BENZO(K)FLUORANTHENE	ug/kg	150 J	14100	27.5 U	3800
85-68-7	BENZYL BUTYL PHTHALATE	ug/kg	28.4 U	240 U	28 U	20.7 U
92-52-4	BIPHENYL (DIPHENYL)	ug/kg	22.4 U	74500	22.1 U	16.3 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/kg	34.1 U	290 U	33.6 U	24.8 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/kg	28.4 U	240 U	28 U	20.7 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	24.5 U	210 U	24.2 U	17.8 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	20.9 UJ	180 U	20.7 UJ	15.2 UJ
105-60-2	CAPROLACTAM	ug/kg	27.5 U	230 U	27.2 U	20 U
86-74-8	CARBAZOLE	ug/kg	13 U	3600 J	12.8 U	1400
218-01-9	CHRYSENE	ug/kg	240 J	73400	180 J	7300
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/kg	17 U	6900	16.8 U	870
132-64-9	DIBENZOFURAN	ug/kg	23.1 U	23200	22.8 U	440
84-66-2	DIETHYL PHTHALATE	ug/kg	9.2 U	77.5 U	9.1 U	6.7 U
131-11-3	DIMETHYL PHTHALATE	ug/kg	1000	130 U	600	660
84-74-2	DI-N-BUTYL PHTHALATE	ug/kg	46.5 U	390 U	45.9 U	33.8 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/kg	6.7 UJ	56.7 U	6.7 UJ	4.9 UJ
206-44-0	FLUORANTHENE	ug/kg	750	145400	410 J	14800
86-73-7	FLUORENE	ug/kg	22.4 U	165000	22.1 U	1100
118-74-1	HEXACHLOROBENZENE	ug/kg	24.1 U	200 U	23.8 U	17.6 U
87-68-3	HEXACHLOROBUTADIENE	ug/kg	21.5 U	180 U	21.2 U	15.6 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/kg	14.4 UJ	120 U	14.2 UJ	10.5 UJ
67-72-1	HEXACHLOROETHANE	ug/kg	26.4 U	220 U	26.1 U	19.2 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/kg	170 J	21600	19.4 U	3200
78-59-1	ISOPHORONE	ug/kg	19.5 U	160 U	19.3 U	14.2 U

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-3 SB-3(12-14)-20131101 E4277-24 12 - 14 ft CTECH E4277 SOIL 11/1/2013 11:25 2/4/2014	SB-4 SB-4(15-17)-20131031 E4277-19 15 - 17 ft CTECH E4277 SOIL 10/31/2013 14:15 2/4/2014	SB-4 SB-4(19-20)-20131031 E4277-20 19 - 20 ft CTECH E4277 SOIL 10/31/2013 14:15 2/4/2014	SB-5 SB-5(5-10)-20131031 E4277-17 5 - 10 ft CTECH E4277 SOIL 10/31/2013 12:40 2/4/2014
CAS NO.	COMPOUND	UNITS:				
<b>SEMIVOLATILES</b>						
91-20-3	NAPHTHALENE	ug/kg	170 J	1899200	480 J	1200
98-95-3	NITROBENZENE	ug/kg	22.4 U	190 U	22.1 U	16.3 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/kg	29.8 U	250 U	29.4 U	21.7 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/kg	14.2 U	120 U	14 U	10.3 U
87-86-5	PENTACHLOROPHENOL	ug/kg	40.5 U	340 U	40 U	29.5 U
85-01-8	PHENANTHRENE	ug/kg	250 J	547300	380 J	12300
108-95-2	PHENOL	ug/kg	13.7 UJ	110 U	13.5 UJ	9.9 UJ
129-00-0	PYRENE	ug/kg	650	253600	370 J	13000
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	mg/kg	2300	4000	15500	2700
7440-36-0	ANTIMONY	mg/kg	15 J	1.74 J	0.813 UJ	0.641 UJ
7440-38-2	ARSENIC	mg/kg	11.8	12	10.52	5.42
7440-39-3	BARIUM	mg/kg	369	78.3	54.5	170
7440-41-7	BERYLLIUM	mg/kg	0.091 U	0.291 J	0.643	0.204 J
7440-43-9	CADMIUM	mg/kg	1.31	0.3 J	0.087 U	0.069 U
7440-70-2	CALCIUM	mg/kg	7700	2000	3700	3200
7440-47-3	CHROMIUM, TOTAL	mg/kg	10.95	16.7	35	24.8
7440-48-4	COBALT	mg/kg	16.8	9.46	17.2	5.01
7440-50-8	COPPER	mg/kg	64.9	92.1	28.2	129
7439-89-6	IRON	mg/kg	102200	46400	40100	13000
7439-92-1	LEAD	mg/kg	595 J	292 J	63.9 J	737 J
7439-95-4	MAGNESIUM	mg/kg	721	374	8700	1200
7439-96-5	MANGANESE	mg/kg	1300	113	808	49.9
7439-97-6	MERCURY	mg/kg	0.879	3.11	0.461	0.199
7440-02-0	NICKEL	mg/kg	12.4 J	21.6 J	37.2 J	11.2 J
7440-09-7	POTASSIUM	mg/kg	597 J	597 J	4100 J	584 J
7782-49-2	SELENIUM	mg/kg	1.24 J	3.67	2.49	1.95
7440-22-4	SILVER	mg/kg	5.72	2.97	2.81	0.862
7440-23-5	SODIUM	mg/kg	1500	430	3400	299
7440-28-0	THALLIUM	mg/kg	1.07 J	0.35 U	0.392 U	0.309 U
7440-62-2	VANADIUM	mg/kg	36.3	19.5	58.1	24.5
7440-66-6	ZINC	mg/kg	781	495	219	72
57-12-5	CYANIDE	mg/kg	9.8	34.9	1.84	0.79

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-5 SB-5(10-15)-20131031 E4277-18 10 - 15 ft CTECH E4277 SOIL 10/31/2013 12:50 2/4/2014	SB-6 SB-6(8-10)-20131031 E4277-12 8 - 10 ft CTECH E4277 SOIL 10/31/2013 10:20 2/4/2014	SB-6 SB-6(10-15)-20131031 E4277-15 10 - 15 ft CTECH E4277 SOIL 10/31/2013 10:30 2/4/2014	SB-7 SB-7(8-10)-20131031 E4277-10 8 - 10 ft CTECH E4277 SOIL 10/31/2013 8:35 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>VOLATILES</b>					
71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/kg	0.61 UJ	0.75 UJ	0.81 U	0.55 UJ
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/kg	1.2 U	1.5 U	1.6 U	1.1 U
75-34-3	1,1-DICHLOROETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
75-35-4	1,1-DICHLOROETHENE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	0.66 UJ	0.81 UJ	0.88 U	0.6 UJ
120-82-1	1,2,4-TRICHLOROBENZENE	ug/kg	0.66 UJ	0.81 UJ	0.88 U	0.6 UJ
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	1.2 UJ	1.4 UJ	1.5 U	1 UJ
106-93-4	1,2-DIBROMOETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
95-50-1	1,2-DICHLOROBENZENE	ug/kg	0.66 UJ	0.81 UJ	0.88 U	0.6 UJ
107-06-2	1,2-DICHLOROETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
78-87-5	1,2-DICHLOROPROPANE	ug/kg	0.35 U	0.42 U	0.46 U	0.31 U
541-73-1	1,3-DICHLOROBENZENE	ug/kg	0.49 UJ	0.6 UJ	0.65 U	0.44 UJ
106-46-7	1,4-DICHLOROBENZENE	ug/kg	0.55 UJ	0.66 UJ	0.72 U	0.49 UJ
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/kg	130 U	160 U	180 U	120 U
591-78-6	2-HEXANONE	ug/kg	3.3 U	4.1 U	4.4 U	3 U
67-64-1	ACETONE	ug/kg	3.3 U	4.1 U	63.7	33.7
71-43-2	BENZENE	ug/kg	0.51 U	0.62 U	0.67 U	0.46 U
74-97-5	BROMOCHLOROMETHANE	ug/kg	0.66 U	0.81 U	0.88 UJ	0.6 U
75-27-4	BROMODICHLOROMETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
75-25-2	BROMOFORM	ug/kg	0.98 U	1.2 U	1.3 U	0.89 U
74-83-9	BROMOMETHANE	ug/kg	1.3 U	1.6 U	1.8 U	1.2 U
75-15-0	CARBON DISULFIDE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
56-23-5	CARBON TETRACHLORIDE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
108-90-7	CHLOROBENZENE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
75-00-3	CHLOROETHANE	ug/kg	0.66 UJ	0.81 U	0.88 U	0.6 U
67-66-3	CHLOROFORM	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
74-87-3	CHLOROMETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/kg	0.66 UJ	0.81 U	0.88 U	0.6 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
110-82-7	CYCLOHEXANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
124-48-1	DIBROMOCHLOROMETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
100-41-4	ETHYLBENZENE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/kg	0.64 UJ	0.78 UJ	0.84 U	0.58 UJ
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/kg	0.96 U	1.2 U	1.3 U	0.86 U
79-20-9	METHYL ACETATE	ug/kg	1.3 U	1.6 U	1.8 U	1.2 U
78-93-3	METHYL ETHYL KETONE	ug/kg	4.1 U	5 U	5.5 U	3.7 U
108-10-1	METHYL ISOBUTYL KETONE	ug/kg	3.3 U	4.1 U	4.4 U	3 U
108-87-2	METHYLCYCLOHEXANE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
75-09-2	METHYLENE CHLORIDE	ug/kg	4 J	7.8 J	8.8 U	4.4 J
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
100-42-5	STYRENE	ug/kg	0.6 U	0.73 U	0.79 U	0.54 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
108-88-3	TOLUENE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/kg	0.66 UJ	0.81 U	0.88 U	0.6 U
75-01-4	VINYL CHLORIDE	ug/kg	0.66 U	0.81 U	0.88 U	0.6 U



Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-5 SB-5(10-15)-20131031 E4277-18 10 - 15 ft CTECH E4277 SOIL 10/31/2013 12:50 2/4/2014	SB-6 SB-6(8-10)-20131031 E4277-12 8 - 10 ft CTECH E4277 SOIL 10/31/2013 10:20 2/4/2014	SB-6 SB-6(10-15)-20131031 E4277-15 10 - 15 ft CTECH E4277 SOIL 10/31/2013 10:30 2/4/2014	SB-7 SB-7(8-10)-20131031 E4277-10 8 - 10 ft CTECH E4277 SOIL 10/31/2013 8:35 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>SEMIVOLATILES</b>					
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/kg	15.7 U	16 U	19.8 U	14.8 U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/kg	15.7 U	16 U	19.8 U	14.8 U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/kg	28 U	28.5 U	35.3 U	26.4 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/kg	12.2 U	12.4 U	15.4 U	11.5 U
120-83-2	2,4-DICHLOROPHENOL	ug/kg	15.2 U	15.5 U	19.2 U	14.3 U
105-67-9	2,4-DIMETHYLPHENOL	ug/kg	22.6 U	23 U	28.5 U	21.3 U
51-28-5	2,4-DINITROPHENOL	ug/kg	40.5 UJ	41.3 UJ	51.1 UJ	38.2 UJ
121-14-2	2,4-DINITROTOLUENE	ug/kg	11.9 U	12.2 U	15.1 U	11.3 U
606-20-2	2,6-DINITROTOLUENE	ug/kg	16.2 U	16.6 U	20.5 U	15.3 U
91-58-7	2-CHLORONAPHTHALENE	ug/kg	9.1 U	9.3 U	11.5 U	8.6 U
95-57-8	2-CHLOROPHENOL	ug/kg	21 U	21.4 U	26.6 U	19.9 U
91-57-6	2-METHYLNAPHTHALENE	ug/kg	10 U	170 J	130 J	86.9 J
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/kg	21.6 U	22.1 U	27.3 U	20.4 U
88-74-4	2-NITROANILINE	ug/kg	17.7 U	18 U	22.3 U	16.7 U
88-75-5	2-NITROPHENOL	ug/kg	19.2 U	19.6 U	24.3 U	18.2 U
MEPH3ME	3- AND 4- METHYLPHENOL (TOTAL)	ug/kg	20.7 U	21.1 U	26.1 U	19.5 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/kg	25.6 U	26.1 U	32.3 U	24.1 U
99-09-2	3-NITROANILINE	ug/kg	25.6 U	26.1 U	32.3 U	24.1 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/kg	22.8 UJ	23.3 UJ	28.8 UJ	21.5 UJ
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/kg	7.8 U	7.9 U	9.8 U	7.3 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/kg	17.7 U	18 U	22.3 U	16.7 U
106-47-8	4-CHLOROANILINE	ug/kg	28.1 U	28.6 U	35.5 U	26.5 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/kg	21.6 U	22.1 U	27.3 U	20.4 U
100-01-6	4-NITROANILINE	ug/kg	51.8 U	52.9 U	65.5 U	49 U
100-02-7	4-NITROPHENOL	ug/kg	73.9 U	75.4 U	93.4 U	69.8 U
83-32-9	ACENAPHTHENE	ug/kg	11.2 U	11.5 U	14.2 U	10.6 U
208-96-8	ACENAPHTHYLENE	ug/kg	10 U	340 J	500	230 J
98-86-2	ACETOPHENONE	ug/kg	12.2 U	12.4 U	15.4 U	11.5 U
120-12-7	ANTHRACENE	ug/kg	8.1 U	320 J	670	330 J
1912-24-9	ATRAZINE	ug/kg	21 U	21.4 U	26.6 U	19.9 U
100-52-7	BENZALDEHYDE	ug/kg	R	R	R	R
56-55-3	BENZO(A)ANTHRACENE	ug/kg	130 J	750	1700	1200
50-32-8	BENZO(A)PYRENE	ug/kg	120 J	730	1500	1200
205-99-2	BENZO(B)FLUORANTHENE	ug/kg	150 J	790	1800	1500
191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	16.1 U	550	900	890 J
207-08-9	BENZO(K)FLUORANTHENE	ug/kg	18.8 U	380 J	500	360 J
85-68-7	BENZYL BUTYL PHTHALATE	ug/kg	19.1 U	19.5 U	24.1 U	18.1 U
92-52-4	BIPHENYL (DIPHENYL)	ug/kg	15.1 U	15.4 U	19 U	14.2 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/kg	22.9 U	23.4 U	29 U	21.7 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/kg	19.1 U	19.5 U	24.1 U	18.1 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	16.5 U	16.8 U	20.8 U	15.6 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	14.1 UJ	14.4 U	17.8 UJ	13.3 U
105-60-2	CAPROLACTAM	ug/kg	18.5 U	18.9 U	23.4 U	17.5 U
86-74-8	CARBAZOLE	ug/kg	8.7 U	8.9 U	120 J	80.1 J
218-01-9	CHRYSENE	ug/kg	110 J	710	1300	1200
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/kg	11.5 U	120 J	240 J	210 J
132-64-9	DIBENZOFURAN	ug/kg	15.5 U	15.8 U	150 J	14.7 U
84-66-2	DIETHYL PHTHALATE	ug/kg	6.2 U	6.3 U	150 J	5.9 U
131-11-3	DIMETHYL PHTHALATE	ug/kg	310 J	450	680	240 J
84-74-2	DI-N-BUTYL PHTHALATE	ug/kg	31.3 U	31.9 U	39.5 U	29.6 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/kg	4.5 UJ	4.6 U	5.7 UJ	4.3 U
206-44-0	FLUORANTHENE	ug/kg	210 J	1400	2800	1700
86-73-7	FLUORENE	ug/kg	15.1 U	250 J	360 J	150 J
118-74-1	HEXACHLOROBENZENE	ug/kg	16.2 U	16.6 U	20.5 U	15.3 U
87-68-3	HEXACHLOROBUTADIENE	ug/kg	14.5 U	14.7 U	18.3 U	13.7 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/kg	9.7 UJ	9.9 U	12.2 UJ	9.1 U
67-72-1	HEXACHLOROETHANE	ug/kg	17.8 U	18.2 U	22.5 U	16.8 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/kg	13.3 U	450	790	830
78-59-1	ISOPHORONE	ug/kg	13.1 U	13.4 U	16.6 U	12.4 U

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-5 SB-5(10-15)-20131031 E4277-18 10 - 15 ft CTECH E4277 SOIL 10/31/2013 12:50 2/4/2014	SB-6 SB-6(8-10)-20131031 E4277-12 8 - 10 ft CTECH E4277 SOIL 10/31/2013 10:20 2/4/2014	SB-6 SB-6(10-15)-20131031 E4277-15 10 - 15 ft CTECH E4277 SOIL 10/31/2013 10:30 2/4/2014	SB-7 SB-7(8-10)-20131031 E4277-10 8 - 10 ft CTECH E4277 SOIL 10/31/2013 8:35 2/4/2014
CAS NO.	COMPOUND	UNITS:				
<b>SEMIVOLATILES</b>						
91-20-3	NAPHTHALENE	ug/kg	190 J	180 J	300 J	130 J
98-95-3	NITROBENZENE	ug/kg	15.1 U	15.4 U	19 U	14.2 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/kg	20.1 U	20.5 U	25.3 U	19 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/kg	9.6 U	9.7 U	12.1 U	9 U
87-86-5	PENTACHLOROPHENOL	ug/kg	27.2 U	27.8 U	34.4 U	25.7 U
85-01-8	PHENANTHRENE	ug/kg	170 J	1200	2200	1000
108-95-2	PHENOL	ug/kg	9.2 UJ	9.4 U	11.6 UJ	8.7 U
129-00-0	PYRENE	ug/kg	200 J	1500	2600	1800
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	mg/kg	6300	7300	6000	6800
7440-36-0	ANTIMONY	mg/kg	0.589 UJ	1.36 J	0.971 J	0.76 J
7440-38-2	ARSENIC	mg/kg	7.29	15.9	14.3	4.36
7440-39-3	BARIUM	mg/kg	377	203	420	195
7440-41-7	BERYLLIUM	mg/kg	0.474	0.34	0.29 J	0.317
7440-43-9	CADMIUM	mg/kg	0.619	0.404	4.22	2.36
7440-70-2	CALCIUM	mg/kg	5000	15000	5100	6400
7440-47-3	CHROMIUM, TOTAL	mg/kg	20	62.1	79.2	20.6
7440-48-4	COBALT	mg/kg	7.22	7.31	8.37	9.55
7440-50-8	COPPER	mg/kg	120	79.6	310	120
7439-89-6	IRON	mg/kg	18200	34300	58900	22400
7439-92-1	LEAD	mg/kg	494 J	227 J	870 J	301 J
7439-95-4	MAGNESIUM	mg/kg	2300	3200	1800	2800
7439-96-5	MANGANESE	mg/kg	128	165	134	237
7439-97-6	MERCURY	mg/kg	0.319	0.39	1.46	0.361
7440-02-0	NICKEL	mg/kg	18.5 J	55.1 J	59.4 J	29.4 J
7440-09-7	POTASSIUM	mg/kg	1200 J	1100 J	1600 J	2300 J
7782-49-2	SELENIUM	mg/kg	1.94	2.5	2.25	1.1
7440-22-4	SILVER	mg/kg	1.31	2.41	2.36	0.661
7440-23-5	SODIUM	mg/kg	1600	1300	371	242
7440-28-0	THALLIUM	mg/kg	0.284 U	0.278 U	0.338 U	0.26 U
7440-62-2	VANADIUM	mg/kg	29	41.2	43.4	41.8
7440-66-6	ZINC	mg/kg	259	336	528	315
57-12-5	CYANIDE	mg/kg	4.13	7.32	5.4	0.037 UJ

		Dup of SB-7(8-10)-20131031				
Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID:	SB-7	SB-7	SB-8	SB-8
		Sample ID:	SB-17(8-10)-20131031	SB-7(16-18)-20131031	SB-8(15-16)-20131030	SB-8(17-19)-20131030
		Lab Sample Id:	E4277-16	E4277-11	E4277-07	E4277-08
		Depth:	8 - 10 ft	16 - 18 ft	15 - 16 ft	17 - 19 ft
		Source:	CTECH	CTECH	CTECH	CTECH
SDG:	E4277	E4277	E4277	E4277		
Matrix:	SOIL	SOIL	SOIL	SOIL		
Sampled:	10/31/2013 8:45	10/31/2013 10:20	10/30/2013 14:55	10/30/2013 14:55		
Validated:	2/4/2014	2/4/2014	2/4/2014	2/4/2014		
CAS NO.	COMPOUND	UNITS:				
	<b>VOLATILES</b>					
71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/kg	0.54 U	0.82 UJ	0.73 UJ	0.75 UJ
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/kg	1 U	1.6 U	1.4 U	1.5 U
75-34-3	1,1-DICHLOROETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
75-35-4	1,1-DICHLOROETHENE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	0.58 U	0.9 UJ	0.79 UJ	0.82 UJ
120-82-1	1,2,4-TRICHLOROBENZENE	ug/kg	0.58 U	0.9 UJ	0.79 UJ	0.82 UJ
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	1 U	1.6 UJ	1.4 U	1.4 U
106-93-4	1,2-DIBROMOETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
95-50-1	1,2-DICHLOROBENZENE	ug/kg	0.58 U	0.9 UJ	0.79 U	0.82 U
107-06-2	1,2-DICHLOROETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
78-87-5	1,2-DICHLOROPROPANE	ug/kg	0.3 U	0.47 U	0.41 UJ	0.42 UJ
541-73-1	1,3-DICHLOROBENZENE	ug/kg	0.43 U	0.66 UJ	0.58 U	0.6 U
106-46-7	1,4-DICHLOROBENZENE	ug/kg	0.48 U	0.74 UJ	0.65 U	0.67 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/kg	120 U	180 U	R	R
591-78-6	2-HEXANONE	ug/kg	2.9 U	4.5 U	3.9 U	4.1 U
67-64-1	ACETONE	ug/kg	61.6	39.1 J	52.5	4.1 U
71-43-2	BENZENE	ug/kg	0.44 U	0.68 U	13.7	0.62 U
74-97-5	BROMOCHLOROMETHANE	ug/kg	0.58 UJ	0.9 U	0.79 U	0.82 U
75-27-4	BROMODICHLOROMETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
75-25-2	BROMOFORM	ug/kg	0.86 U	1.3 U	1.2 UJ	1.2 UJ
74-83-9	BROMOMETHANE	ug/kg	1.2 U	1.8 U	1.6 U	1.6 U
75-15-0	CARBON DISULFIDE	ug/kg	0.58 U	1.9 J	2.3 J	3 J
56-23-5	CARBON TETRACHLORIDE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
108-90-7	CHLOROBENZENE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
75-00-3	CHLOROETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
67-66-3	CHLOROFORM	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
74-87-3	CHLOROMETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
110-82-7	CYCLOHEXANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
124-48-1	DIBROMOCHLOROMETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
100-41-4	ETHYLBENZENE	ug/kg	0.58 U	0.9 U	4.5 J	0.82 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/kg	0.56 U	0.86 UJ	2.5 J	0.78 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/kg	0.84 U	1.3 U	26.6	1.2 U
79-20-9	METHYL ACETATE	ug/kg	1.2 U	1.8 U	1.6 UJ	1.6 UJ
78-93-3	METHYL ETHYL KETONE	ug/kg	3.6 U	5.6 U	4.9 U	5.1 U
108-10-1	METHYL ISOBUTYL KETONE	ug/kg	2.9 U	4.5 U	6.1 J	4.1 U
108-87-2	METHYLCYCLOHEXANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
75-09-2	METHYLENE CHLORIDE	ug/kg	5.8 U	6 J	2.5 J	2.2 J
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/kg	0.58 U	0.9 U	13	0.82 U
100-42-5	STYRENE	ug/kg	0.52 U	0.81 U	3.7 J	0.73 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
108-88-3	TOLUENE	ug/kg	0.58 U	0.9 U	9.3	0.82 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U
75-01-4	VINYL CHLORIDE	ug/kg	0.58 U	0.9 U	0.79 U	0.82 U

		Dup of SB-7(8-10)-20131031				
Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-7 SB-17(8-10)-20131031 E4277-16 8 - 10 ft CTECH E4277 SOIL 10/31/2013 8:45 2/4/2014	SB-7 SB-7(16-18)-20131031 E4277-11 16 - 18 ft CTECH E4277 SOIL 10/31/2013 10:20 2/4/2014	SB-8 SB-8(15-16)-20131030 E4277-07 15 - 16 ft CTECH E4277 SOIL 10/30/2013 14:55 2/4/2014	SB-8 SB-8(17-19)-20131030 E4277-08 17 - 19 ft CTECH E4277 SOIL 10/30/2013 14:55 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>SEMIVOLATILES</b>					
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/kg	15.3 U	18.3 U	19.7 U	20.1 U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/kg	15.3 U	18.3 U	19.7 U	20.1 U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/kg	27.3 U	32.7 U	35.1 U	36 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/kg	11.9 U	14.2 U	15.3 U	15.7 U
120-83-2	2,4-DICHLOROPHENOL	ug/kg	14.8 U	17.7 U	19.1 U	19.5 U
105-67-9	2,4-DIMETHYLPHENOL	ug/kg	22 U	26.4 U	28.4 U	29 U
51-28-5	2,4-DINITROPHENOL	ug/kg	39.5 UJ	47.3 UJ	50.9 UJ	52.1 UJ
121-14-2	2,4-DINITROTOLUENE	ug/kg	11.7 U	14 U	15 U	15.4 U
606-20-2	2,6-DINITROTOLUENE	ug/kg	15.9 U	19 U	20.4 U	20.9 U
91-58-7	2-CHLORONAPHTHALENE	ug/kg	8.9 U	10.6 U	11.4 U	11.7 U
95-57-8	2-CHLOROPHENOL	ug/kg	20.5 U	24.6 U	26.4 U	27 U
91-57-6	2-METHYLNAPHTHALENE	ug/kg	150 J	11.7 U	1900	12.9 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/kg	21.1 U	25.3 U	27.2 U	27.8 U
88-74-4	2-NITROANILINE	ug/kg	17.3 U	20.7 U	22.2 U	22.7 U
88-75-5	2-NITROPHENOL	ug/kg	18.8 U	22.5 U	24.2 U	24.7 U
MEPH3ME	3- AND 4- METHYLPHENOL (TOTAL)	ug/kg	20.2 U	220 J	140 J	26.6 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/kg	25 U	29.9 U	32.1 U	32.9 U
99-09-2	3-NITROANILINE	ug/kg	25 U	29.9 U	32.1 U	32.9 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/kg	22.3 UJ	26.7 UJ	28.7 U	29.4 UJ
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/kg	7.6 U	9.1 U	9.8 U	10 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/kg	17.3 U	20.7 U	22.2 U	22.7 U
106-47-8	4-CHLOROANILINE	ug/kg	27.4 U	32.8 U	35.3 U	36.1 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/kg	21.1 U	25.3 U	27.2 U	27.8 U
100-01-6	4-NITROANILINE	ug/kg	50.6 U	60.6 U	65.2 U	66.7 U
100-02-7	4-NITROPHENOL	ug/kg	72.2 U	86.5 U	92.9 U	95.1 U
83-32-9	ACENAPHTHENE	ug/kg	11 U	13.1 U	700	14.4 U
208-96-8	ACENAPHTHYLENE	ug/kg	320 J	11.7 U	2500	12.9 U
98-86-2	ACETOPHENONE	ug/kg	11.9 U	14.2 U	15.3 U	15.7 U
120-12-7	ANTHRACENE	ug/kg	580 J	200 J	3900	10.5 U
1912-24-9	ATRAZINE	ug/kg	20.5 U	24.6 U	26.4 U	27 UJ
100-52-7	BENZALDEHYDE	ug/kg	R	R	R	R
56-55-3	BENZO(A)ANTHRACENE	ug/kg	1700	990	4900	24.4 U
50-32-8	BENZO(A)PYRENE	ug/kg	1900	890	3100	11.1 U
205-99-2	BENZO(B)FLUORANTHENE	ug/kg	2000	1100	2700 J	16.8 UJ
191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	1600 J	530	1900 J	20.7 U
207-08-9	BENZO(K)FLUORANTHENE	ug/kg	900 J	390 J	1900	24.1 UJ
85-68-7	BENZYL BUTYL PHTHALATE	ug/kg	18.7 U	22.3 U	24 U	24.6 U
92-52-4	BIPHENYL (DIPHENYL)	ug/kg	14.7 U	17.6 U	630	19.4 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/kg	22.4 U	26.8 U	28.8 U	29.5 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/kg	18.7 U	22.3 U	24 U	24.6 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	16.1 U	19.3 U	20.7 U	21.2 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	110 J	16.5 U	17.7 U	18.1 U
105-60-2	CAPROLACTAM	ug/kg	18.1 U	21.6 U	23.3 U	23.8 U
86-74-8	CARBAZOLE	ug/kg	130 J	10.2 U	970 J	11.2 U
218-01-9	CHRYSENE	ug/kg	1500	890	2700	23.2 U
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/kg	250 J	140 J	760	14.8 U
132-64-9	DIBENZOFURAN	ug/kg	84.7 J	18.2 U	1400	20 U
84-66-2	DIETHYL PHTHALATE	ug/kg	6.1 U	7.3 U	7.8 U	8 U
131-11-3	DIMETHYL PHTHALATE	ug/kg	610 J	430 J	720	610
84-74-2	DI-N-BUTYL PHTHALATE	ug/kg	30.6 U	36.6 U	39.3 U	40.3 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/kg	4.4 UJ	5.3 U	5.7 U	5.8 U
206-44-0	FLUORANTHENE	ug/kg	2700	1300	9200	10.3 U
86-73-7	FLUORENE	ug/kg	250 J	17.6 U	3200	19.4 U
118-74-1	HEXACHLOROBENZENE	ug/kg	15.9 U	19 U	20.4 U	20.9 U
87-68-3	HEXACHLOROBUTADIENE	ug/kg	14.1 U	16.9 U	18.2 U	18.6 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/kg	9.4 UJ	11.3 U	12.2 U	12.4 U
67-72-1	HEXACHLOROETHANE	ug/kg	17.4 U	20.8 U	22.4 U	22.9 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/kg	1300	490	1600	17.1 U
78-59-1	ISOPHORONE	ug/kg	12.8 U	15.4 U	16.5 U	16.9 U

		Dup of SB-7(8-10)-20131031				
Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-7 SB-17(8-10)-20131031 E4277-16 8 - 10 ft CTECH E4277 SOIL 10/31/2013 8:45 2/4/2014	SB-7 SB-7(16-18)-20131031 E4277-11 16 - 18 ft CTECH E4277 SOIL 10/31/2013 10:20 2/4/2014	SB-8 SB-8(15-16)-20131030 E4277-07 15 - 16 ft CTECH E4277 SOIL 10/30/2013 14:55 2/4/2014	SB-8 SB-8(17-19)-20131030 E4277-08 17 - 19 ft CTECH E4277 SOIL 10/30/2013 14:55 2/4/2014
CAS NO.	COMPOUND	UNITS:				
<b>SEMIVOLATILES</b>						
91-20-3	NAPHTHALENE	ug/kg	270 J	16.1 U	6500	17.7 U
98-95-3	NITROBENZENE	ug/kg	14.7 U	17.6 U	18.9 U	19.4 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/kg	19.6 U	23.5 U	25.2 U	25.8 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/kg	9.3 U	11.2 U	12 U	12.3 U
87-86-5	PENTACHLOROPHENOL	ug/kg	26.6 U	31.8 U	34.2 U	35 U
85-01-8	PHENANTHRENE	ug/kg	1700	510	15000	13.8 U
108-95-2	PHENOL	ug/kg	9 UJ	10.8 U	140 J	11.8 U
129-00-0	PYRENE	ug/kg	2800	1400	9700	12.3 U
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	mg/kg	7500	2400	4100	2000
7440-36-0	ANTIMONY	mg/kg	1.11 J	3.91 J	4.33 J	3.23 J
7440-38-2	ARSENIC	mg/kg	5.98	12.8	13.4	5.75
7440-39-3	BARIUM	mg/kg	201	240	275	157
7440-41-7	BERYLLIUM	mg/kg	0.36	0.097 J	0.226 J	0.183 J
7440-43-9	CADMIUM	mg/kg	2.58	5.08	1.42	0.081 U
7440-70-2	CALCIUM	mg/kg	9800	14200	6500	18900
7440-47-3	CHROMIUM, TOTAL	mg/kg	21.9	17	20.5	19.1
7440-48-4	COBALT	mg/kg	10.81	6.35	7.93	7.17
7440-50-8	COPPER	mg/kg	126	414	390	63.6
7439-89-6	IRON	mg/kg	28900	52900	24000	21000
7439-92-1	LEAD	mg/kg	283 J	719 J	884 J	261 J
7439-95-4	MAGNESIUM	mg/kg	5100	1400	2500	3900
7439-96-5	MANGANESE	mg/kg	342	336	200	185
7439-97-6	MERCURY	mg/kg	0.454	1.12	2.18	0.131
7440-02-0	NICKEL	mg/kg	37.5 J	212 J	96.2 J	20.1 J
7440-09-7	POTASSIUM	mg/kg	2400 J	419 J	799 J	410 J
7782-49-2	SELENIUM	mg/kg	0.856 J	2.62	2.35	1.66
7440-22-4	SILVER	mg/kg	0.99	1.86	2.08	1.58
7440-23-5	SODIUM	mg/kg	245	684	387	460
7440-28-0	THALLIUM	mg/kg	0.259 U	0.32 U	0.35 U	0.363 U
7440-62-2	VANADIUM	mg/kg	50.9	20.8	24.1	23.1
7440-66-6	ZINC	mg/kg	372	719	3200	197
57-12-5	CYANIDE	mg/kg	1.3 J	1.78	2	0.109 J

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-9 SB-9(5-10)-20131030 E4277-05 5 - 10 ft CTECH E4277 SOIL 10/30/2013 13:30 2/4/2014	SB-9 SB-9(10-15)-20131030 E4277-06 10 - 15 ft CTECH E4277 SOIL 10/30/2013 13:40 2/4/2014	SB-10 SB-10(5-10)-20131030 E4277-03 5 - 10 ft CTECH E4277 SOIL 10/30/2013 11:20 2/4/2014	SB-10 SB-10(10-12)-20131030 E4277-04 10 - 12 ft CTECH E4277 SOIL 10/30/2013 11:30 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>VOLATILES</b>					
71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/kg	0.47 UJ	0.77 UJ	0.58 UJ	0.61 UJ
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/kg	0.92 U	1.5 U	1.1 U	1.2 U
75-34-3	1,1-DICHLOROETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
75-35-4	1,1-DICHLOROETHENE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	0.51 UJ	0.83 UJ	0.63 UJ	0.67 UJ
120-82-1	1,2,4-TRICHLOROBENZENE	ug/kg	0.51 UJ	0.83 UJ	0.63 UJ	0.67 UJ
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	0.89 U	1.5 U	1.1 UJ	1.2 U
106-93-4	1,2-DIBROMOETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
95-50-1	1,2-DICHLOROBENZENE	ug/kg	0.51 U	0.83 U	0.63 UJ	0.67 U
107-06-2	1,2-DICHLOROETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
78-87-5	1,2-DICHLOROPROPANE	ug/kg	0.27 UJ	0.43 UJ	0.33 UJ	0.35 UJ
541-73-1	1,3-DICHLOROBENZENE	ug/kg	0.38 U	0.62 U	0.47 UJ	0.49 U
106-46-7	1,4-DICHLOROBENZENE	ug/kg	0.42 U	0.68 U	0.52 UJ	0.55 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/kg	R	R	R	R
591-78-6	2-HEXANONE	ug/kg	2.6 U	4.2 U	3.2 U	3.3 U
67-64-1	ACETONE	ug/kg	23.6 J	81.4	47.6	18 J
71-43-2	BENZENE	ug/kg	9.7	0.63 U	0.48 U	0.51 U
74-97-5	BROMOCHLOROMETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
75-27-4	BROMODICHLOROMETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
75-25-2	BROMOFORM	ug/kg	0.76 UJ	1.2 UJ	0.94 UJ	0.99 UJ
74-83-9	BROMOMETHANE	ug/kg	1 U	1.7 U	1.3 U	1.3 U
75-15-0	CARBON DISULFIDE	ug/kg	3.5 J	1.7 J	2 J	2.6 J
56-23-5	CARBON TETRACHLORIDE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
108-90-7	CHLOROBENZENE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
75-00-3	CHLOROETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
67-66-3	CHLOROFORM	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
74-87-3	CHLOROMETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
110-82-7	CYCLOHEXANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
124-48-1	DIBROMOCHLOROMETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
100-41-4	ETHYLBENZENE	ug/kg	4 J	0.83 U	0.63 U	0.67 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/kg	0.49 U	0.8 U	0.61 UJ	0.64 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/kg	76.8	1.2 U	0.91 U	0.96 U
79-20-9	METHYL ACETATE	ug/kg	1 UJ	1.7 UJ	1.3 UJ	1.3 UJ
78-93-3	METHYL ETHYL KETONE	ug/kg	3.2 U	5.2 U	3.9 U	4.2 U
108-10-1	METHYL ISOBUTYL KETONE	ug/kg	5.4 J	4.2 U	3.2 U	3.3 U
108-87-2	METHYLCYCLOHEXANE	ug/kg	1.4 J	0.83 U	0.63 U	0.67 U
75-09-2	METHYLENE CHLORIDE	ug/kg	3.5 J	2.8 J	4.8 J	5 J
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/kg	36.7	0.83 U	0.63 U	0.67 U
100-42-5	STYRENE	ug/kg	9.4	0.75 U	0.57 U	0.6 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
108-88-3	TOLUENE	ug/kg	21.3	0.83 U	0.63 U	0.67 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U
75-01-4	VINYL CHLORIDE	ug/kg	0.51 U	0.83 U	0.63 U	0.67 U

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-9 SB-9(5-10)-20131030 E4277-05 5 - 10 ft CTECH E4277 SOIL 10/30/2013 13:30 2/4/2014	SB-9 SB-9(10-15)-20131030 E4277-06 10 - 15 ft CTECH E4277 SOIL 10/30/2013 13:40 2/4/2014	SB-10 SB-10(5-10)-20131030 E4277-03 5 - 10 ft CTECH E4277 SOIL 10/30/2013 11:20 2/4/2014	SB-10 SB-10(10-12)-20131030 E4277-04 10 - 12 ft CTECH E4277 SOIL 10/30/2013 11:30 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>SEMIVOLATILES</b>					
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/kg	15.7 U	16.6 U	16.8 U	17.1 U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/kg	15.7 U	16.6 U	16.8 U	17.1 U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/kg	28.1 U	29.7 U	30 U	30.5 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/kg	12.2 U	12.9 U	13.1 U	13.3 U
120-83-2	2,4-DICHLOROPHENOL	ug/kg	15.2 U	16.1 U	16.3 U	16.5 U
105-67-9	2,4-DIMETHYLPHENOL	ug/kg	110 J	24 U	24.3 U	24.6 U
51-28-5	2,4-DINITROPHENOL	ug/kg	40.6 UJ	43 UJ	43.5 UJ	44.2 UJ
121-14-2	2,4-DINITROTOLUENE	ug/kg	12 U	12.7 U	12.8 U	13 U
606-20-2	2,6-DINITROTOLUENE	ug/kg	16.3 U	17.2 U	17.5 U	17.7 U
91-58-7	2-CHLORONAPHTHALENE	ug/kg	9.1 U	9.6 U	9.8 U	9.9 U
95-57-8	2-CHLOROPHENOL	ug/kg	21.1 U	22.3 U	22.6 U	22.9 U
91-57-6	2-METHYLNAPHTHALENE	ug/kg	1300	10.6 U	120 J	10.9 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/kg	120 J	22.9 U	23.2 U	23.6 U
88-74-4	2-NITROANILINE	ug/kg	17.7 U	18.8 U	19 U	19.3 U
88-75-5	2-NITROPHENOL	ug/kg	19.3 U	20.4 U	20.7 U	21 U
MEPH3ME	3- AND 4- METHYLPHENOL (TOTAL)	ug/kg	330 J	21.9 U	22.2 U	22.5 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/kg	25.7 U	27.1 U	27.5 U	27.9 U
99-09-2	3-NITROANILINE	ug/kg	25.7 U	27.1 U	27.5 U	27.9 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/kg	22.9 U	24.2 U	24.5 U	24.9 U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/kg	7.8 U	8.2 U	8.3 U	8.5 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/kg	17.7 U	18.8 U	19 U	19.3 U
106-47-8	4-CHLOROANILINE	ug/kg	28.2 U	29.8 U	30.2 U	30.6 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/kg	21.7 U	22.9 U	23.2 U	23.6 U
100-01-6	4-NITROANILINE	ug/kg	52 U	55 U	55.7 U	56.5 U
100-02-7	4-NITROPHENOL	ug/kg	74.2 U	78.4 U	79.5 U	80.6 U
83-32-9	ACENAPHTHENE	ug/kg	470	11.9 U	12.1 U	210 J
208-96-8	ACENAPHTHYLENE	ug/kg	3600	240 J	170 J	94.2 J
98-86-2	ACETOPHENONE	ug/kg	12.2 U	12.9 U	13.1 U	13.3 U
120-12-7	ANTHRACENE	ug/kg	13500	480	160 J	920
1912-24-9	ATRAZINE	ug/kg	21.1 U	22.3 U	22.6 U	22.9 U
100-52-7	BENZALDEHYDE	ug/kg	R	R	99.3 J	R
56-55-3	BENZO(A)ANTHRACENE	ug/kg	22000	950	380 J	1400
50-32-8	BENZO(A)PYRENE	ug/kg	12300	770	310 J	920
205-99-2	BENZO(B)FLUORANTHENE	ug/kg	15300 J	860 J	310 J	1100 J
191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	6800 J	760 J	210 J	500 J
207-08-9	BENZO(K)FLUORANTHENE	ug/kg	4900	290 J	180 J	500
85-68-7	BENZYL BUTYL PHTHALATE	ug/kg	19.2 U	20.3 U	20.5 U	20.8 U
92-52-4	BIPHENYL (DIPHENYL)	ug/kg	400	16 U	16.2 U	16.4 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/kg	23 U	24.3 U	24.7 U	25 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/kg	19.2 U	20.3 U	20.5 U	20.8 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	16.5 U	17.5 U	17.7 U	18 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	14.1 U	15 U	15.2 U	15.4 U
105-60-2	CAPROLACTAM	ug/kg	18.6 U	19.6 U	19.9 U	20.2 U
86-74-8	CARBAZOLE	ug/kg	4100 J	110 J	9.4 U	130 J
218-01-9	CHRYSENE	ug/kg	12900	750	360 J	1100
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/kg	3000	190 J	12.3 U	240 J
132-64-9	DIBENZOFURAN	ug/kg	2200	16.5 U	16.7 U	130 J
84-66-2	DIETHYL PHTHALATE	ug/kg	6.2 U	6.6 U	6.7 U	6.8 U
131-11-3	DIMETHYL PHTHALATE	ug/kg	410	590	590	540
84-74-2	DI-N-BUTYL PHTHALATE	ug/kg	31.4 U	33.2 U	33.6 U	34.1 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/kg	4.6 U	4.8 U	4.9 U	5 U
206-44-0	FLUORANTHENE	ug/kg	46700	1700	570	2600
86-73-7	FLUORENE	ug/kg	5200	230 J	16.2 U	310 J
118-74-1	HEXACHLOROBENZENE	ug/kg	16.3 U	17.2 U	17.5 U	17.7 U
87-68-3	HEXACHLOROBUTADIENE	ug/kg	14.5 U	15.3 U	15.5 U	15.8 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/kg	9.7 U	10.3 U	10.4 U	10.6 U
67-72-1	HEXACHLOROETHANE	ug/kg	17.9 U	18.9 U	19.1 U	19.4 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/kg	7300	550	180 J	490
78-59-1	ISOPHORONE	ug/kg	13.2 U	13.9 U	14.1 U	14.3 U

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-9 SB-9(5-10)-20131030 E4277-05 5 - 10 ft CTECH E4277 SOIL 10/30/2013 13:30 2/4/2014	SB-9 SB-9(10-15)-20131030 E4277-06 10 - 15 ft CTECH E4277 SOIL 10/30/2013 13:40 2/4/2014	SB-10 SB-10(5-10)-20131030 E4277-03 5 - 10 ft CTECH E4277 SOIL 10/30/2013 11:20 2/4/2014	SB-10 SB-10(10-12)-20131030 E4277-04 10 - 12 ft CTECH E4277 SOIL 10/30/2013 11:30 2/4/2014
CAS NO.	COMPOUND	UNITS:				
<b>SEMIVOLATILES</b>						
91-20-3	NAPHTHALENE	ug/kg	2300	200 J	150 J	15 U
98-95-3	NITROBENZENE	ug/kg	15.1 U	16 U	16.2 U	16.4 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/kg	20.1 U	21.3 U	21.6 U	21.9 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/kg	9.6 U	10.1 U	10.3 U	10.4 U
87-86-5	PENTACHLOROPHENOL	ug/kg	27.3 U	28.9 U	29.3 U	29.7 U
85-01-8	PHENANTHRENE	ug/kg	39000	1200	470	2100
108-95-2	PHENOL	ug/kg	240 J	9.8 U	9.9 U	10 U
129-00-0	PYRENE	ug/kg	33200	1700	650	2200
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	mg/kg	7600	5200	5400	7800
7440-36-0	ANTIMONY	mg/kg	1.19 J	1.15 J	0.996 J	0.732 J
7440-38-2	ARSENIC	mg/kg	7.18	6.71	7.74	4.85
7440-39-3	BARIUM	mg/kg	136	99.1	137	135
7440-41-7	BERYLLIUM	mg/kg	0.296 J	0.323	0.308 J	0.25 J
7440-43-9	CADMIUM	mg/kg	0.405	0.862	0.064 U	0.14 J
7440-70-2	CALCIUM	mg/kg	21500	49900	5000	22900
7440-47-3	CHROMIUM, TOTAL	mg/kg	21.9	17.2	13.1	19.3
7440-48-4	COBALT	mg/kg	20.9	9.24	5.8	9.87
7440-50-8	COPPER	mg/kg	72	70.3	84.1	56.3
7439-89-6	IRON	mg/kg	32600	17000	17700	22200
7439-92-1	LEAD	mg/kg	232 J	161 J	231 J	173 J
7439-95-4	MAGNESIUM	mg/kg	7600	18200	2500	7600
7439-96-5	MANGANESE	mg/kg	237	176	483	229
7439-97-6	MERCURY	mg/kg	0.826	0.573	0.373	0.303
7440-02-0	NICKEL	mg/kg	43.2 J	32.3 J	18.6 J	26.5 J
7440-09-7	POTASSIUM	mg/kg	2200 J	912 J	801 J	1800 J
7782-49-2	SELENIUM	mg/kg	2.53	1.27	2.09	1.2
7440-22-4	SILVER	mg/kg	1.87	1.41	1.3	1.34
7440-23-5	SODIUM	mg/kg	279	258	481	623
7440-28-0	THALLIUM	mg/kg	0.275 U	0.29 U	0.29 U	0.288 U
7440-62-2	VANADIUM	mg/kg	88	25.6	32.5	34.8
7440-66-6	ZINC	mg/kg	210	246	233	151
57-12-5	CYANIDE	mg/kg	5.36	0.104 J	0.609	0.522



Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-11 SB-11(5-10)-20131030 E4277-01 5 - 10 ft CTECH E4277 SOIL 10/30/2013 9:45 2/4/2014	SB-11 SB-11(15-20)-20131030 E4277-02 15 - 20 ft CTECH E4277 SOIL 10/30/2013 10:05 2/4/2014	FIELDQC TB110113-20131101 E4277-28 - CTECH E4277 SOIL 11/1/2013 10:00 2/4/2014	FIELDQC TB110413-20131104 E4340-07 - CTECH E4340 WATER 11/4/2013 10:00 2/4/2014
CAS NO.	COMPOUND	UNITS:			ug/l	ug/l
	<b>VOLATILES</b>					
71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	0.61 U	0.79 U	0.4 U	0.4 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/kg	0.56 UJ	0.73 UJ	0.31 U	0.31 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/kg	0.61 U	0.79 U	0.45 U	0.45 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/kg	1.1 U	1.4 U	0.38 U	0.38 U
75-34-3	1,1-DICHLOROETHANE	ug/kg	0.61 U	0.79 U	0.36 UJ	0.36 UJ
75-35-4	1,1-DICHLOROETHENE	ug/kg	0.61 U	0.79 U	0.47 U	0.47 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	0.61 UJ	0.79 UJ	0.2 U	0.2 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/kg	0.61 UJ	0.79 UJ	0.2 U	0.2 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	1.1 UJ	1.4 U	0.46 UJ	0.46 UJ
106-93-4	1,2-DIBROMOETHANE	ug/kg	0.61 U	0.79 U	0.41 UJ	0.41 UJ
95-50-1	1,2-DICHLOROBENZENE	ug/kg	0.61 UJ	0.79 U	0.45 U	0.45 U
107-06-2	1,2-DICHLOROETHANE	ug/kg	0.61 U	0.79 U	0.48 U	0.48 U
78-87-5	1,2-DICHLOROPROPANE	ug/kg	0.32 UJ	0.41 UJ	0.46 U	0.46 U
541-73-1	1,3-DICHLOROBENZENE	ug/kg	0.45 UJ	0.58 U	0.43 U	0.43 U
106-46-7	1,4-DICHLOROBENZENE	ug/kg	0.5 UJ	0.65 U	0.32 U	0.32 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/kg	R	R	50 U	50 U
591-78-6	2-HEXANONE	ug/kg	3 U	4 U	1.9 UJ	1.9 UJ
67-64-1	ACETONE	ug/kg	29.5 J	36.2 J	0.5 U	0.5 U
71-43-2	BENZENE	ug/kg	0.46 U	0.6 U	0.32 U	0.32 U
74-97-5	BROMOCHLOROMETHANE	ug/kg	0.61 U	0.79 U	0.2 U	0.2 U
75-27-4	BROMODICHLOROMETHANE	ug/kg	0.61 U	0.79 U	0.36 U	0.36 U
75-25-2	BROMOFORM	ug/kg	0.9 UJ	1.2 UJ	0.47 UJ	0.47 UJ
74-83-9	BROMOMETHANE	ug/kg	1.2 U	1.6 U	0.2 U	0.2 U
75-15-0	CARBON DISULFIDE	ug/kg	0.61 U	3.6 J	0.2 U	0.2 U
56-23-5	CARBON TETRACHLORIDE	ug/kg	0.61 U	0.79 U	0.2 U	0.2 U
108-90-7	CHLOROBENZENE	ug/kg	0.61 U	0.79 U	0.49 U	0.49 U
75-00-3	CHLOROETHANE	ug/kg	0.61 U	0.79 U	0.2 UJ	0.2 UJ
67-66-3	CHLOROFORM	ug/kg	0.61 U	0.79 U	0.34 U	0.34 U
74-87-3	CHLOROMETHANE	ug/kg	0.61 U	0.79 U	0.2 U	0.2 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/kg	0.61 U	0.79 U	0.35 U	0.35 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/kg	0.61 U	0.79 U	0.31 U	0.31 U
110-82-7	CYCLOHEXANE	ug/kg	0.61 U	0.79 U	0.2 U	0.2 U
124-48-1	DIBROMOCHLOROMETHANE	ug/kg	0.61 U	0.79 U	0.2 UJ	0.2 UJ
75-71-8	DICHLORODIFLUOROMETHANE	ug/kg	0.61 U	0.79 U	0.2 U	0.2 U
100-41-4	ETHYLBENZENE	ug/kg	0.61 U	0.79 U	0.2 U	0.2 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/kg	0.59 UJ	0.76 U	0.45 U	0.45 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/kg	0.88 U	1.1 U	0.95 U	0.95 U
79-20-9	METHYL ACETATE	ug/kg	1.2 UJ	1.6 UJ	0.2 U	0.2 U
78-93-3	METHYL ETHYL KETONE	ug/kg	3.8 U	4.9 U	1.3 U	1.3 U
108-10-1	METHYL ISOBUTYL KETONE	ug/kg	3 U	4 U	2.1 U	2.1 U
108-87-2	METHYLCYCLOHEXANE	ug/kg	0.61 U	0.79 U	0.2 U	0.2 U
75-09-2	METHYLENE CHLORIDE	ug/kg	4.2 J	5.6 J	0.41 U	0.41 U
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/kg	0.61 U	0.79 U	0.43 U	0.43 U
100-42-5	STYRENE	ug/kg	0.55 U	0.71 U	0.36 U	0.36 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/kg	0.61 U	0.79 U	0.35 U	0.35 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/kg	0.61 U	0.79 U	0.27 U	0.27 U
108-88-3	TOLUENE	ug/kg	0.61 U	0.79 U	0.37 U	0.37 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	0.61 U	0.79 U	0.41 U	0.41 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/kg	0.61 U	0.79 U	0.29 U	0.29 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/kg	0.61 U	0.79 U	0.28 U	0.28 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/kg	0.61 U	0.79 U	0.35 U	0.35 U
75-01-4	VINYL CHLORIDE	ug/kg	0.61 U	0.79 U	0.34 UJ	0.34 UJ

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-11 SB-11(5-10)-20131030 E4277-01 5 - 10 ft CTECH E4277 SOIL 10/30/2013 9:45 2/4/2014	SB-11 SB-11(15-20)-20131030 E4277-02 15 - 20 ft CTECH E4277 SOIL 10/30/2013 10:05 2/4/2014	FIELDQC TB110113-20131101 E4277-28 - CTECH E4277 SOIL 11/1/2013 10:00 2/4/2014	FIELDQC TB110413-20131104 E4340-07 - CTECH E4340 WATER 11/4/2013 10:00 2/4/2014
CAS NO.	COMPOUND	UNITS:			ug/l	ug/l
	<b>SEMIVOLATILES</b>					
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/kg	16.3 U	19.5 U		
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/kg	16.3 U	19.5 U		
95-95-4	2,4,5-TRICHLOROPHENOL	ug/kg	29.2 U	34.9 U		
88-06-2	2,4,6-TRICHLOROPHENOL	ug/kg	12.7 U	15.2 U		
120-83-2	2,4-DICHLOROPHENOL	ug/kg	15.8 U	18.9 U		
105-67-9	2,4-DIMETHYLPHENOL	ug/kg	23.6 U	28.2 U		
51-28-5	2,4-DINITROPHENOL	ug/kg	42.3 UJ	50.6 UJ		
121-14-2	2,4-DINITROTOLUENE	ug/kg	12.5 U	14.9 U		
606-20-2	2,6-DINITROTOLUENE	ug/kg	17 U	20.3 U		
91-58-7	2-CHLORONAPHTHALENE	ug/kg	9.5 U	11.3 U		
95-57-8	2-CHLOROPHENOL	ug/kg	22 U	26.3 U		
91-57-6	2-METHYLNAPHTHALENE	ug/kg	10.5 U	12.5 U		
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/kg	22.6 U	27 U		
88-74-4	2-NITROANILINE	ug/kg	18.5 U	22.1 U		
88-75-5	2-NITROPHENOL	ug/kg	20.1 U	24 U		
MEPH3ME	3- AND 4- METHYLPHENOL (TOTAL)	ug/kg	21.6 U	25.8 U		
91-94-1	3,3'-DICHLOROBENZIDINE	ug/kg	26.7 U	31.9 U		
99-09-2	3-NITROANILINE	ug/kg	26.7 U	31.9 U		
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/kg	23.8 U	28.5 U		
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/kg	8.1 U	9.7 U		
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/kg	18.5 U	22.1 U		
106-47-8	4-CHLOROANILINE	ug/kg	29.3 U	35.1 U		
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/kg	22.6 U	27 U		
100-01-6	4-NITROANILINE	ug/kg	54.2 U	64.7 U		
100-02-7	4-NITROPHENOL	ug/kg	77.2 U	92.3 U		
83-32-9	ACENAPHTHENE	ug/kg	11.7 U	14 U		
208-96-8	ACENAPHTHYLENE	ug/kg	10.5 U	12.5 U		
98-86-2	ACETOPHENONE	ug/kg	12.7 U	15.2 U		
120-12-7	ANTHRACENE	ug/kg	140 J	120 J		
1912-24-9	ATRAZINE	ug/kg	22 U	26.3 U		
100-52-7	BENZALDEHYDE	ug/kg	R	R		
56-55-3	BENZO(A)ANTHRACENE	ug/kg	720	240 J		
50-32-8	BENZO(A)PYRENE	ug/kg	660	190 J		
205-99-2	BENZO(B)FLUORANTHENE	ug/kg	760 J	180 J		
191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	480 J	120 J		
207-08-9	BENZO(K)FLUORANTHENE	ug/kg	300 J	23.4 U		
85-68-7	BENZYL BUTYL PHTHALATE	ug/kg	20 U	23.9 U		
92-52-4	BIPHENYL (DIPHENYL)	ug/kg	15.7 U	18.8 U		
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/kg	24 U	28.6 U		
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/kg	20 U	23.9 U		
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	17.2 U	20.6 U		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	88.6 J	17.6 U		
105-60-2	CAPROLACTAM	ug/kg	19.3 U	23.1 U		
86-74-8	CARBAZOLE	ug/kg	9.1 U	10.9 U		
218-01-9	CHRYSENE	ug/kg	500	170 J		
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/kg	190 J	14.3 U		
132-64-9	DIBENZOFURAN	ug/kg	16.2 U	19.4 U		
84-66-2	DIETHYL PHTHALATE	ug/kg	6.5 U	7.8 U		
131-11-3	DIMETHYL PHTHALATE	ug/kg	650	720		
84-74-2	DI-N-BUTYL PHTHALATE	ug/kg	32.7 U	39.1 U		
117-84-0	DI-N-OCTYLPHTHALATE	ug/kg	4.7 U	5.7 U		
206-44-0	FLUORANTHENE	ug/kg	820	370 J		
86-73-7	FLUORENE	ug/kg	15.7 U	18.8 U		
118-74-1	HEXACHLOROBENZENE	ug/kg	17 U	20.3 U		
87-68-3	HEXACHLOROBUTADIENE	ug/kg	15.1 U	18 U		
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/kg	10.1 U	12.1 U		
67-72-1	HEXACHLOROETHANE	ug/kg	18.6 U	22.2 U		
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/kg	420	99.9 J		
78-59-1	ISOPHORONE	ug/kg	13.7 U	16.4 U		

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-11 SB-11(5-10)-20131030 E4277-01 5 - 10 ft CTECH E4277 SOIL 10/30/2013 9:45 2/4/2014	SB-11 SB-11(15-20)-20131030 E4277-02 15 - 20 ft CTECH E4277 SOIL 10/30/2013 10:05 2/4/2014	FIELDQC TB110113-20131101 E4277-28 - CTECH E4277 SOIL 11/1/2013 10:00 2/4/2014	FIELDQC TB110413-20131104 E4340-07 - CTECH E4340 WATER 11/4/2013 10:00 2/4/2014
CAS NO.	COMPOUND	UNITS:			ug/l	ug/l
<b>SEMIVOLATILES</b>						
91-20-3	NAPHTHALENE	ug/kg	14.3 U	17.2 U		
98-95-3	NITROBENZENE	ug/kg	15.7 U	18.8 U		
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/kg	21 U	25.1 U		
86-30-6	N-NITROSODIPHENYLAMINE	ug/kg	10 U	11.9 U		
87-86-5	PENTACHLOROPHENOL	ug/kg	28.5 U	34 U		
85-01-8	PHENANTHRENE	ug/kg	410	380 J		
108-95-2	PHENOL	ug/kg	9.6 U	11.5 U		
129-00-0	PYRENE	ug/kg	830	420 J		
<b>INORGANICS</b>						
7429-90-5	ALUMINUM	mg/kg	4300	9600		
7440-36-0	ANTIMONY	mg/kg	1.5 J	2.26 J		
7440-38-2	ARSENIC	mg/kg	5.77	20.8		
7440-39-3	BARIUM	mg/kg	237	207		
7440-41-7	BERYLLIUM	mg/kg	0.348	0.271 J		
7440-43-9	CADMIUM	mg/kg	0.063 U	0.839		
7440-70-2	CALCIUM	mg/kg	4300	7300		
7440-47-3	CHROMIUM, TOTAL	mg/kg	12.6	34		
7440-48-4	COBALT	mg/kg	11.7	13.9		
7440-50-8	COPPER	mg/kg	346	130		
7439-89-6	IRON	mg/kg	22300	77700		
7439-92-1	LEAD	mg/kg	884 J	338 J		
7439-95-4	MAGNESIUM	mg/kg	1300	4700		
7439-96-5	MANGANESE	mg/kg	128	564		
7439-97-6	MERCURY	mg/kg	0.709	2.67		
7440-02-0	NICKEL	mg/kg	14.5 J	33.2 J		
7440-09-7	POTASSIUM	mg/kg	871 J	2300 J		
7782-49-2	SELENIUM	mg/kg	1.97	3.85		
7440-22-4	SILVER	mg/kg	1.64	5.38		
7440-23-5	SODIUM	mg/kg	508	2300		
7440-28-0	THALLIUM	mg/kg	0.283 U	0.353 U		
7440-62-2	VANADIUM	mg/kg	19.4	41		
7440-66-6	ZINC	mg/kg	112	288		
57-12-5	CYANIDE	mg/kg	8.79	9.13		

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	FIELDQC FB110113-20131101 E4277-27 - CTECH E4277 SOIL 11/1/2013 14:20 2/4/2014	FIELDQC FB110413-20131104 E4340-06 - CTECH E4340 SOIL 11/4/2013 11:45 2/4/2014
CAS NO.	COMPOUND	UNITS:	ug/l	ug/l
	<b>VOLATILES</b>			
71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	0.4 U	0.4 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/kg	0.31 U	0.31 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/kg	0.45 U	0.45 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/kg	0.38 U	0.38 U
75-34-3	1,1-DICHLOROETHANE	ug/kg	0.36 UJ	0.36 UJ
75-35-4	1,1-DICHLOROETHENE	ug/kg	0.47 U	0.47 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	0.2 U	0.2 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/kg	0.2 U	0.2 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	0.46 UJ	0.46 UJ
106-93-4	1,2-DIBROMOETHANE	ug/kg	0.41 UJ	0.41 UJ
95-50-1	1,2-DICHLOROBENZENE	ug/kg	0.45 U	0.45 U
107-06-2	1,2-DICHLOROETHANE	ug/kg	0.48 U	0.48 U
78-87-5	1,2-DICHLOROPROPANE	ug/kg	0.46 U	0.46 U
541-73-1	1,3-DICHLOROBENZENE	ug/kg	0.43 U	0.43 U
106-46-7	1,4-DICHLOROBENZENE	ug/kg	0.32 U	0.32 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/kg	50 U	50 U
591-78-6	2-HEXANONE	ug/kg	1.9 UJ	1.9 UJ
67-64-1	ACETONE	ug/kg	0.5 U	0.5 U
71-43-2	BENZENE	ug/kg	0.32 U	0.32 U
74-97-5	BROMOCHLOROMETHANE	ug/kg	0.2 U	0.2 U
75-27-4	BROMODICHLOROMETHANE	ug/kg	0.36 U	0.36 U
75-25-2	BROMOFORM	ug/kg	0.47 UJ	0.47 UJ
74-83-9	BROMOMETHANE	ug/kg	0.2 U	0.2 U
75-15-0	CARBON DISULFIDE	ug/kg	0.2 U	0.2 U
56-23-5	CARBON TETRACHLORIDE	ug/kg	0.2 U	0.2 U
108-90-7	CHLOROBENZENE	ug/kg	0.49 U	0.49 U
75-00-3	CHLOROETHANE	ug/kg	0.2 UJ	0.2 UJ
67-66-3	CHLOROFORM	ug/kg	0.34 U	0.34 U
74-87-3	CHLOROMETHANE	ug/kg	0.2 U	0.2 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/kg	0.35 U	0.35 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/kg	0.31 U	0.31 U
110-82-7	CYCLOHEXANE	ug/kg	0.2 U	0.2 U
124-48-1	DIBROMOCHLOROMETHANE	ug/kg	0.2 UJ	0.2 UJ
75-71-8	DICHLORODIFLUOROMETHANE	ug/kg	0.2 U	0.2 U
100-41-4	ETHYLBENZENE	ug/kg	0.2 U	0.2 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/kg	0.45 U	0.45 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/kg	0.95 U	0.95 U
79-20-9	METHYL ACETATE	ug/kg	0.2 U	0.2 U
78-93-3	METHYL ETHYL KETONE	ug/kg	1.3 U	1.3 U
108-10-1	METHYL ISOBUTYL KETONE	ug/kg	2.1 U	2.1 U
108-87-2	METHYLCYCLOHEXANE	ug/kg	0.2 U	0.2 U
75-09-2	METHYLENE CHLORIDE	ug/kg	0.41 U	0.41 U
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/kg	0.43 U	0.43 U
100-42-5	STYRENE	ug/kg	0.36 U	0.36 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/kg	0.35 U	0.35 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/kg	0.27 U	0.27 U
108-88-3	TOLUENE	ug/kg	0.37 U	0.37 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	0.41 U	0.41 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/kg	0.29 U	0.29 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/kg	0.28 U	0.28 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/kg	0.35 U	0.35 U
75-01-4	VINYL CHLORIDE	ug/kg	0.34 UJ	0.34 UJ

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	FIELDQC FB110113-20131101 E4277-27 - CTECH E4277 SOIL 11/1/2013 14:20 2/4/2014	FIELDQC FB110413-20131104 E4340-06 - CTECH E4340 SOIL 11/4/2013 11:45 2/4/2014
CAS NO.	COMPOUND	UNITS:	ug/l	ug/l
	<b>SEMIVOLATILES</b>			
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/kg	0.2 U	0.2 U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/kg	0.2 U	0.2 U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/kg	0.4 U	0.4 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/kg	0.57 U	0.56 U
120-83-2	2,4-DICHLOROPHENOL	ug/kg	0.67 U	0.66 U
105-67-9	2,4-DIMETHYLPHENOL	ug/kg	0.72 U	0.71 U
51-28-5	2,4-DINITROPHENOL	ug/kg	2.1 UJ	2.1 UJ
121-14-2	2,4-DINITROTOLUENE	ug/kg	1 U	1 U
606-20-2	2,6-DINITROTOLUENE	ug/kg	0.32 U	0.32 U
91-58-7	2-CHLORONAPHTHALENE	ug/kg	0.16 U	0.16 U
95-57-8	2-CHLOROPHENOL	ug/kg	0.55 U	0.54 U
91-57-6	2-METHYLNAPHTHALENE	ug/kg	0.32 U	0.32 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/kg	0.24 U	0.24 U
88-74-4	2-NITROANILINE	ug/kg	0.49 U	0.49 U
88-75-5	2-NITROPHENOL	ug/kg	0.53 U	0.52 U
MEPH3ME	3- AND 4- METHYLPHENOL (TOTAL)	ug/kg	0.38 U	0.38 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/kg	1 U	1 U
99-09-2	3-NITROANILINE	ug/kg	1 U	1 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/kg	0.75 U	0.74 U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/kg	0.23 U	0.23 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/kg	0.4 U	0.4 U
106-47-8	4-CHLOROANILINE	ug/kg	1 U	1 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/kg	0.21 U	0.21 U
100-01-6	4-NITROANILINE	ug/kg	1.4 U	1.4 U
100-02-7	4-NITROPHENOL	ug/kg	2 U	2 U
83-32-9	ACENAPHTHENE	ug/kg	0.21 U	0.21 U
208-96-8	ACENAPHTHYLENE	ug/kg	0.71 U	0.7 U
98-86-2	ACETOPHENONE	ug/kg	0.14 U	0.14 U
120-12-7	ANTHRACENE	ug/kg	0.16 U	0.16 U
1912-24-9	ATRAZINE	ug/kg	0.4 U	0.4 U
100-52-7	BENZALDEHYDE	ug/kg	R	R
56-55-3	BENZO(A)ANTHRACENE	ug/kg	0.16 U	0.16 U
50-32-8	BENZO(A)PYRENE	ug/kg	0.14 U	0.14 U
205-99-2	BENZO(B)FLUORANTHENE	ug/kg	0.29 U	0.29 U
191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	0.29 U	0.29 U
207-08-9	BENZO(K)FLUORANTHENE	ug/kg	0.18 U	0.18 UJ
85-68-7	BENZYL BUTYL PHTHALATE	ug/kg	0.19 U	0.19 U
92-52-4	BIPHENYL (DIPHENYL)	ug/kg	0.15 U	0.15 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/kg	0.56 U	0.55 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/kg	0.56 U	0.55 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	0.17 U	0.17 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	0.16 U	0.16 U
105-60-2	CAPROLACTAM	ug/kg	1 U	1 U
86-74-8	CARBAZOLE	ug/kg	0.22 U	0.22 U
218-01-9	CHRYSENE	ug/kg	0.18 U	0.18 U
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/kg	0.42 U	0.42 U
132-64-9	DIBENZOFURAN	ug/kg	0.24 U	0.24 U
84-66-2	DIETHYL PHTHALATE	ug/kg	0.38 U	0.38 U
131-11-3	DIMETHYL PHTHALATE	ug/kg	0.22 U	0.22 U
84-74-2	DI-N-BUTYL PHTHALATE	ug/kg	1 U	1 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/kg	0.52 U	0.51 U
206-44-0	FLUORANTHENE	ug/kg	0.4 U	0.4 U
86-73-7	FLUORENE	ug/kg	0.31 U	0.31 U
118-74-1	HEXACHLOROBENZENE	ug/kg	0.18 U	0.18 U
87-68-3	HEXACHLOROBUTADIENE	ug/kg	0.25 U	0.25 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/kg	0.24 U	0.24 UJ
67-72-1	HEXACHLOROETHANE	ug/kg	0.25 U	0.25 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/kg	0.15 U	0.15 U
78-59-1	ISOPHORONE	ug/kg	0.3 U	0.3 U

Con Ed - Halleck Street Validated Soil Analytical Data SDG: E4277 & E4340		Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	FIELDQC FB110113-20131101 E4277-27 - CTECH E4277 SOIL 11/1/2013 14:20 2/4/2014	FIELDQC FB110413-20131104 E4340-06 - CTECH E4340 SOIL 11/4/2013 11:45 2/4/2014
CAS NO.	COMPOUND	UNITS:	ug/l	ug/l
<b>SEMIVOLATILES</b>				
91-20-3	NAPHTHALENE	ug/kg	0.12 U	0.12 U
98-95-3	NITROBENZENE	ug/kg	0.69 UJ	0.68 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/kg	0.2 U	0.2 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/kg	0.61 U	0.6 U
87-86-5	PENTACHLOROPHENOL	ug/kg	1 UJ	1 U
85-01-8	PHENANTHRENE	ug/kg	0.26 U	0.26 U
108-95-2	PHENOL	ug/kg	0.21 U	0.21 U
129-00-0	PYRENE	ug/kg	0.2 U	0.2 U
<b>INORGANICS</b>				
7429-90-5	ALUMINUM	mg/kg	6.5 U	6.5 U
7440-36-0	ANTIMONY	mg/kg	8 U	8 U
7440-38-2	ARSENIC	mg/kg	4.2 U	4.2 U
7440-39-3	BARIUM	mg/kg	4 U	4 U
7440-41-7	BERYLLIUM	mg/kg	0.7 U	0.7 U
7440-43-9	CADMIUM	mg/kg	0.5 U	0.5 U
7440-70-2	CALCIUM	mg/kg	86.5 J	31.8 U
7440-47-3	CHROMIUM, TOTAL	mg/kg	1.1 U	1.1 U
7440-48-4	COBALT	mg/kg	5.8 U	5.8 U
7440-50-8	COPPER	mg/kg	2 U	2 U
7439-89-6	IRON	mg/kg	20.4 U	20.4 U
7439-92-1	LEAD	mg/kg	2.6 U	2.6 U
7439-95-4	MAGNESIUM	mg/kg	32.5 U	32.5 U
7439-96-5	MANGANESE	mg/kg	1.7 U	1.7 U
7439-97-6	MERCURY	mg/kg	0.1 U	0.109 J
7440-02-0	NICKEL	mg/kg	4.2 U	4.2 U
7440-09-7	POTASSIUM	mg/kg	38.8 U	38.8 U
7782-49-2	SELENIUM	mg/kg	4.8 U	4.8 U
7440-22-4	SILVER	mg/kg	1.5 U	1.5 U
7440-23-5	SODIUM	mg/kg	41.3 J	13.9 U
7440-28-0	THALLIUM	mg/kg	2.4 U	2.4 U
7440-62-2	VANADIUM	mg/kg	6.1 U	6.1 U
7440-66-6	ZINC	mg/kg	6.5 U	6.5 U
57-12-5	CYANIDE	mg/kg	3 U	3 U

**ATTACHMENT A-2**

**VALIDATED LABORATORY DATA FOR GROUNDWATER SAMPLES**

Con Ed - Halleck Street Validated Groundwater Analytical Data SDG: E4638		Location ID: Sample ID: Lab Sample ID: Source: SDG: Matrix: Sampled: Validated:	MW-1 MW-1-20131127 E4638-06 CTECH E4638 WATER 11/27/2013 12:20 2/4/2014	MW-2 MW-2-20131127 E4638-05 CTECH E4638 WATER 11/27/2013 10:50 2/4/2014	MW-3 MW-3-20131127 E4638-01 CTECH E4638 WATER 11/27/2013 8:45 2/4/2014	MW-3 MW-3A-20131127 E4638-04 CTECH E4638 WATER 11/27/2013 9:10 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>VOLATILES</b>					
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.4 U	0.4 U	0.4 U	0.4 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	0.31 U	0.31 U	0.31 U	0.31 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	0.45 U	0.45 U	0.45 U	0.45 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	0.38 U	0.38 U	0.38 U	0.38 U
75-34-3	1,1-DICHLOROETHANE	ug/l	0.36 U	0.36 U	0.36 U	0.36 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.47 U	0.47 U	0.47 U	0.47 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	0.46 U	0.46 U	0.46 U	0.46 U
106-93-4	1,2-DIBROMOETHANE	ug/l	0.41 U	0.41 U	0.41 U	0.41 U
95-50-1	1,2-DICHLOROBENZENE	ug/l	0.45 U	0.45 U	0.45 U	0.45 U
107-06-2	1,2-DICHLOROETHANE	ug/l	0.48 U	0.48 U	0.48 U	0.48 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/l	0.95 U	0.95 U	0.95 U	0.95 U
78-87-5	1,2-DICHLOROPROPANE	ug/l	0.46 U	0.46 U	0.46 U	0.46 U
541-73-1	1,3-DICHLOROBENZENE	ug/l	0.43 U	0.43 U	0.43 U	0.43 U
106-46-7	1,4-DICHLOROBENZENE	ug/l	0.32 U	0.32 U	0.32 U	0.32 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/l	50 U	50 U	50 U	50 U
591-78-6	2-HEXANONE	ug/l	1.9 U	1.9 U	1.9 U	1.9 U
67-64-1	ACETONE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U
71-43-2	BENZENE	ug/l	0.32 U	0.32 U	0.32 U	0.32 U
74-97-5	BROMOCHLOROMETHANE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
75-27-4	BROMODICHLOROMETHANE	ug/l	0.36 U	0.36 U	0.36 U	0.36 U
75-25-2	BROMOFORM	ug/l	0.47 U	0.47 U	0.47 U	0.47 U
74-83-9	BROMOMETHANE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
75-15-0	CARBON DISULFIDE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
56-23-5	CARBON TETRACHLORIDE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
108-90-7	CHLOROBENZENE	ug/l	0.49 U	0.49 U	0.49 U	0.49 U
75-00-3	CHLOROETHANE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
67-66-3	CHLOROFORM	ug/l	0.34 U	0.34 U	0.34 U	0.34 U
74-87-3	CHLOROMETHANE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.35 U	0.35 U	0.35 U	0.35 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	0.31 U	0.31 U	0.31 U	0.31 U
110-82-7	CYCLOHEXANE	ug/l	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
124-48-1	DIBROMOCHLOROMETHANE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
100-41-4	ETHYLBENZENE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l	0.45 U	0.45 U	0.45 U	0.45 U
79-20-9	METHYL ACETATE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
78-93-3	METHYL ETHYL KETONE	ug/l	1.3 U	1.3 U	1.3 U	1.3 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l	2.1 U	2.1 U	2.1 U	2.1 U
108-87-2	METHYLCYCLOHEXANE	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
75-09-2	METHYLENE CHLORIDE	ug/l	0.41 U	0.41 U	0.41 U	0.41 U
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/l	0.43 U	0.43 U	0.43 U	0.43 U
100-42-5	STYRENE	ug/l	0.36 U	0.36 U	0.36 U	0.36 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l	0.35 U	6.8	0.35 U	0.56 J
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.27 U	0.27 U	0.27 U	0.27 U
108-88-3	TOLUENE	ug/l	0.37 U	0.37 U	0.37 U	0.37 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.41 U	0.41 U	0.41 U	0.41 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	0.29 U	0.29 U	0.29 U	0.29 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.28 U	0.28 U	0.28 U	0.28 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	0.35 U	0.35 U	0.35 U	0.35 U
75-01-4	VINYL CHLORIDE	ug/l	0.34 U	0.34 U	0.34 U	0.34 U



Con Ed - Halleck Street Validated Groundwater Analytical Data SDG: E4638		Location ID: Sample ID: Lab Sample ID: Source: SDG: Matrix: Sampled: Validated:	MW-1 MW-1-20131127 E4638-06 CTECH E4638 WATER 11/27/2013 12:20 2/4/2014	MW-2 MW-2-20131127 E4638-05 CTECH E4638 WATER 11/27/2013 10:50 2/4/2014	MW-3 MW-3-20131127 E4638-01 CTECH E4638 WATER 11/27/2013 8:45 2/4/2014	MW-3 MW-3A-20131127 E4638-04 CTECH E4638 WATER 11/27/2013 9:10 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>SEMIVOLATILES</b>					
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/l	0.21 U	0.22 U	0.24 U	0.2 U
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/l	0.21 U	0.22 U	0.24 U	0.2 U
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	0.42 U	0.43 U	0.47 U	0.41 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	0.58 U	0.6 U	0.66 U	0.57 U
120-83-2	2,4-DICHLOROPHENOL	ug/l	0.69 U	0.71 U	0.78 U	0.67 U
105-67-9	2,4-DIMETHYLPHENOL	ug/l	0.74 U	0.76 U	0.84 U	0.72 U
51-28-5	2,4-DINITROPHENOL	ug/l	2.2 UJ	2.3 UJ	2.5 UJ	2.1 UJ
121-14-2	2,4-DINITROTOLUENE	ug/l	1 U	1.1 U	1.2 U	1 U
606-20-2	2,6-DINITROTOLUENE	ug/l	0.33 UJ	0.34 UJ	0.38 UJ	0.33 UJ
91-58-7	2-CHLORONAPHTHALENE	ug/l	0.17 U	0.17 U	0.19 U	0.16 U
95-57-8	2-CHLOROPHENOL	ug/l	0.56 U	0.58 U	0.64 U	0.55 U
91-57-6	2-METHYLNAPHTHALENE	ug/l	0.33 U	0.34 U	0.38 U	0.33 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l	0.25 U	0.26 U	0.28 U	0.24 U
88-74-4	2-NITROANILINE	ug/l	0.51 UJ	0.53 UJ	0.58 UJ	0.5 UJ
88-75-5	2-NITROPHENOL	ug/l	0.54 U	0.56 U	0.61 U	0.53 U
MEPH3MEPH	3- AND 4- METHYLPHENOL (TOTAL)	ug/l	0.4 U	0.41 U	0.45 U	0.39 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	1 U	1.1 U	1.2 U	1 U
99-09-2	3-NITROANILINE	ug/l	1 U	1.1 U	1.2 U	1 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	0.77 U	0.8 U	0.87 U	0.76 U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	0.24 U	0.25 U	0.27 U	0.23 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	0.42 U	0.43 U	0.47 U	0.41 U
106-47-8	4-CHLOROANILINE	ug/l	1 U	1.1 U	1.2 U	1 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	0.22 U	0.23 U	0.25 U	0.21 U
100-01-6	4-NITROANILINE	ug/l	1.4 UJ	1.5 UJ	1.6 UJ	1.4 UJ
100-02-7	4-NITROPHENOL	ug/l	2.1 U	2.2 U	2.4 U	2 U
83-32-9	ACENAPHTHENE	ug/l	0.22 U	0.23 U	0.25 U	0.21 U
208-96-8	ACENAPHTHYLENE	ug/l	0.73 U	0.75 U	0.82 U	0.71 U
98-86-2	ACETOPHENONE	ug/l	0.15 U	0.15 U	0.16 U	0.14 U
120-12-7	ANTHRACENE	ug/l	0.17 U	0.17 U	0.19 U	0.16 U
1912-24-9	ATRAZINE	ug/l	0.42 U	0.43 U	0.47 U	0.41 U
100-52-7	BENZALDEHYDE	ug/l	0.8 U	0.83 U	0.91 U	0.79 U
56-55-3	BENZO(A)ANTHRACENE	ug/l	0.17 U	0.17 U	0.19 U	0.16 U
50-32-8	BENZO(A)PYRENE	ug/l	0.15 U	0.15 U	0.16 U	0.14 U
205-99-2	BENZO(B)FLUORANTHENE	ug/l	0.3 U	0.31 U	0.34 U	0.3 U
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	0.3 U	0.31 U	0.34 U	0.3 U
207-08-9	BENZO(K)FLUORANTHENE	ug/l	0.19 U	0.19 U	0.21 U	0.18 U
85-68-7	BENZYL BUTYL PHTHALATE	ug/l	0.2 U	0.2 U	0.22 U	0.19 U
92-52-4	BIPHENYL (DIPHENYL)	ug/l	0.16 U	0.16 U	0.18 U	0.15 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l	0.57 U	0.59 U	0.65 U	0.56 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l	0.57 U	0.59 U	0.65 U	0.56 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l	0.18 U	0.18 U	0.2 U	0.17 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	0.17 UJ	0.17 UJ	0.19 UJ	0.16 UJ
105-60-2	CAPROLACTAM	ug/l	1 U	1.1 U	1.2 U	1 U
86-74-8	CARBAZOLE	ug/l	0.23 U	0.24 U	0.26 U	0.22 U
218-01-9	CHRYSENE	ug/l	0.19 U	0.19 U	0.21 U	0.18 U
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l	0.44 U	0.45 U	0.49 U	0.43 U
132-64-9	DIBENZOFURAN	ug/l	0.25 U	0.26 U	0.28 U	0.24 U
84-66-2	DIETHYL PHTHALATE	ug/l	0.4 U	0.41 U	0.45 U	0.39 U
131-11-3	DIMETHYL PHTHALATE	ug/l	0.23 U	0.24 U	0.26 U	8.6 J
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	1 U	1.1 U	1.2 U	1 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/l	0.53 UJ	0.55 UJ	0.6 UJ	0.52 UJ

Con Ed - Halleck Street Validated Groundwater Analytical Data SDG: E4638		Location ID: Sample ID: Lab Sample ID: Source: SDG: Matrix: Sampled: Validated:	MW-1 MW-1-20131127 E4638-06 CTECH E4638 WATER 11/27/2013 12:20 2/4/2014	MW-2 MW-2-20131127 E4638-05 CTECH E4638 WATER 11/27/2013 10:50 2/4/2014	MW-3 MW-3-20131127 E4638-01 CTECH E4638 WATER 11/27/2013 8:45 2/4/2014	MW-3 MW-3A-20131127 E4638-04 CTECH E4638 WATER 11/27/2013 9:10 2/4/2014
CAS NO.	COMPOUND	UNITS:				
	<b>SEMIVOLATILES</b>					
206-44-0	FLUORANTHENE	ug/l	0.42 U	0.43 U	0.47 U	0.41 U
86-73-7	FLUORENE	ug/l	0.32 U	0.33 U	0.36 U	0.32 U
118-74-1	HEXACHLOROBENZENE	ug/l	0.19 U	0.19 U	0.21 U	0.18 U
87-68-3	HEXACHLOROBUTADIENE	ug/l	0.26 U	0.27 U	0.29 U	0.26 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	0.25 UJ	0.26 UJ	0.28 UJ	0.24 UJ
67-72-1	HEXACHLOROETHANE	ug/l	0.26 U	0.27 U	0.29 U	0.26 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l	0.16 U	0.16 U	0.18 U	0.15 U
78-59-1	ISOPHORONE	ug/l	0.31 U	0.32 U	0.35 U	0.31 U
91-20-3	NAPHTHALENE	ug/l	0.13 U	0.13 U	0.14 U	0.12 U
98-95-3	NITROBENZENE	ug/l	0.71 U	0.73 U	0.8 U	0.69 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l	0.21 U	0.22 U	0.24 U	0.2 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	0.63 U	0.65 U	0.71 U	0.61 U
87-86-5	PENTACHLOROPHENOL	ug/l	1 U	1.1 U	1.2 U	1 U
85-01-8	PHENANTHRENE	ug/l	0.27 U	0.28 U	0.31 U	0.27 U
108-95-2	PHENOL	ug/l	0.22 U	0.23 U	0.25 U	0.21 U
129-00-0	PYRENE	ug/l	0.21 U	0.22 U	0.24 U	0.2 U
	<b>INORGANICS</b>					
7429-90-5	ALUMINUM	ug/l	920	252	48.2 J	53.6
7440-36-0	ANTIMONY	ug/l	8 U	8 U	8 U	8 U
7440-38-2	ARSENIC	ug/l	4.2 U	8.81 J	4.2 U	4.2 U
7440-39-3	BARIUM	ug/l	319	84.3	1400	1400
7440-41-7	BERYLLIUM	ug/l	0.7 U	0.7 U	0.7 U	0.7 U
7440-43-9	CADMIUM	ug/l	0.833 J	0.5 U	0.5 U	0.5 U
7440-70-2	CALCIUM	ug/l	148200	142000	175900	170000
7440-47-3	CHROMIUM, TOTAL	ug/l	34.8	1.97 J	1.1 UJ	5.67 J
7440-48-4	COBALT	ug/l	5.8 U	5.8 U	5.8 U	5.8 U
7440-50-8	COPPER	ug/l	2 U	2 U	2 U	2 U
7439-89-6	IRON	ug/l	50500	28100	33500	31300
7439-92-1	LEAD	ug/l	3.31 J	25.3	6.64	6.74
7439-95-4	MAGNESIUM	ug/l	34600	18400	58900	59400
7439-96-5	MANGANESE	ug/l	2900	472	719	698
7439-97-6	MERCURY	ug/l	0.1 U	0.1 U	0.1 U	0.1 U
7440-02-0	NICKEL	ug/l	13.4 J	4.2 U	4.2 U	4.2 U
7440-09-7	POTASSIUM	ug/l	24100	18500	41000	40000
7782-49-2	SELENIUM	ug/l	5.78 J	4.8 U	4.8 U	4.8 U
7440-22-4	SILVER	ug/l	1.5 U	1.5 U	1.5 U	1.5 U
7440-23-5	SODIUM	ug/l	610600	186000	635100	628900
7440-28-0	THALLIUM	ug/l	3.56 J	2.4 U	2.4 U	2.4 U
7440-62-2	VANADIUM	ug/l	6.1 U	6.1 U	6.1 U	6.1 U
7440-66-6	ZINC	ug/l	11.2 J	12.3 J	6.5 U	6.5 U
57-12-5	CYANIDE	ug/l	12	28	687	681

Con Ed - Halleck Street Validated Groundwater Analytical Data SDG: E4638		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB112713-20131127 E4638-08 CTECH E4638 WATER 11/27/2013 8:00 2/4/2014
CAS NO.	COMPOUND	UNITS:	
	<b>VOLATILES</b>		
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.4 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	0.31 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	0.45 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	0.38 U
75-34-3	1,1-DICHLOROETHANE	ug/l	0.36 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.47 U
87-61-6	1,2,3-TRICHLOROBENZENE	ug/l	0.2 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	0.2 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	0.46 U
106-93-4	1,2-DIBROMOETHANE	ug/l	0.41 U
95-50-1	1,2-DICHLOROBENZENE	ug/l	0.45 U
107-06-2	1,2-DICHLOROETHANE	ug/l	0.48 U
XYLMP	M,P-XYLENE (SUM OF ISOMERS)	ug/l	0.95 U
78-87-5	1,2-DICHLOROPROPANE	ug/l	0.46 U
541-73-1	1,3-DICHLOROBENZENE	ug/l	0.43 U
106-46-7	1,4-DICHLOROBENZENE	ug/l	0.32 U
123-91-1	1,4-DIOXANE (P-DIOXANE)	ug/l	50 U
591-78-6	2-HEXANONE	ug/l	1.9 U
67-64-1	ACETONE	ug/l	0.5 U
71-43-2	BENZENE	ug/l	0.32 U
74-97-5	BROMOCHLOROMETHANE	ug/l	0.2 U
75-27-4	BROMODICHLOROMETHANE	ug/l	0.36 U
75-25-2	BROMOFORM	ug/l	0.47 U
74-83-9	BROMOMETHANE	ug/l	0.2 U
75-15-0	CARBON DISULFIDE	ug/l	0.2 U
56-23-5	CARBON TETRACHLORIDE	ug/l	0.2 U
108-90-7	CHLOROBENZENE	ug/l	0.49 U
75-00-3	CHLOROETHANE	ug/l	0.2 U
67-66-3	CHLOROFORM	ug/l	0.34 U
74-87-3	CHLOROMETHANE	ug/l	0.2 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.35 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	0.31 U
110-82-7	CYCLOHEXANE	ug/l	0.2 UJ
124-48-1	DIBROMOCHLOROMETHANE	ug/l	0.2 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	0.2 U
100-41-4	ETHYLBENZENE	ug/l	0.2 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l	0.45 U
79-20-9	METHYL ACETATE	ug/l	0.2 U
78-93-3	METHYL ETHYL KETONE	ug/l	1.3 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l	2.1 U
108-87-2	METHYLCYCLOHEXANE	ug/l	0.2 U
75-09-2	METHYLENE CHLORIDE	ug/l	0.41 U
95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/l	0.43 U
100-42-5	STYRENE	ug/l	0.36 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l	0.35 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.27 U
108-88-3	TOLUENE	ug/l	0.37 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.41 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	0.29 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.28 U
75-69-4	TRICHLOROFUOROMETHANE	ug/l	0.35 U
75-01-4	VINYL CHLORIDE	ug/l	0.34 U

Con Ed - Halleck Street Validated Groundwater Analytical Data SDG: E4638		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB112713-20131127 E4638-08 CTECH E4638 WATER 11/27/2013 8:00 2/4/2014
CAS NO.	COMPOUND	UNITS:	
	<b>SEMIVOLATILES</b>		
95-94-3	1,2,4,5-TETRACHLOROBENZENE	ug/l	
58-90-2	2,3,4,6-TETRACHLOROPHENOL	ug/l	
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	
120-83-2	2,4-DICHLOROPHENOL	ug/l	
105-67-9	2,4-DIMETHYLPHENOL	ug/l	
51-28-5	2,4-DINITROPHENOL	ug/l	
121-14-2	2,4-DINITROTOLUENE	ug/l	
606-20-2	2,6-DINITROTOLUENE	ug/l	
91-58-7	2-CHLORONAPHTHALENE	ug/l	
95-57-8	2-CHLOROPHENOL	ug/l	
91-57-6	2-METHYLNAPHTHALENE	ug/l	
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l	
88-74-4	2-NITROANILINE	ug/l	
88-75-5	2-NITROPHENOL	ug/l	
MEPH3MEPH3	3- AND 4- METHYLPHENOL (TOTAL)	ug/l	
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	
99-09-2	3-NITROANILINE	ug/l	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	
106-47-8	4-CHLOROANILINE	ug/l	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	
100-01-6	4-NITROANILINE	ug/l	
100-02-7	4-NITROPHENOL	ug/l	
83-32-9	ACENAPHTHENE	ug/l	
208-96-8	ACENAPHTHYLENE	ug/l	
98-86-2	ACETOPHENONE	ug/l	
120-12-7	ANTHRACENE	ug/l	
1912-24-9	ATRAZINE	ug/l	
100-52-7	BENZALDEHYDE	ug/l	
56-55-3	BENZO(A)ANTHRACENE	ug/l	
50-32-8	BENZO(A)PYRENE	ug/l	
205-99-2	BENZO(B)FLUORANTHENE	ug/l	
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	
207-08-9	BENZO(K)FLUORANTHENE	ug/l	
85-68-7	BENZYL BUTYL PHTHALATE	ug/l	
92-52-4	BIPHENYL (DIPHENYL)	ug/l	
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l	
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l	
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	
105-60-2	CAPROLACTAM	ug/l	
86-74-8	CARBAZOLE	ug/l	
218-01-9	CHRYSENE	ug/l	
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l	
132-64-9	DIBENZOFURAN	ug/l	
84-66-2	DIETHYL PHTHALATE	ug/l	
131-11-3	DIMETHYL PHTHALATE	ug/l	
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	
117-84-0	DI-N-OCTYLPHTHALATE	ug/l	

Con Ed - Halleck Street Validated Groundwater Analytical Data SDG: E4638		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB112713-20131127 E4638-08 CTECH E4638 WATER 11/27/2013 8:00 2/4/2014
CAS NO.	COMPOUND	UNITS:	
<b>SEMIVOLATILES</b>			
206-44-0	FLUORANTHENE	ug/l	
86-73-7	FLUORENE	ug/l	
118-74-1	HEXACHLOROBENZENE	ug/l	
87-68-3	HEXACHLOROBUTADIENE	ug/l	
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	
67-72-1	HEXACHLOROETHANE	ug/l	
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l	
78-59-1	ISOPHORONE	ug/l	
91-20-3	NAPHTHALENE	ug/l	
98-95-3	NITROBENZENE	ug/l	
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l	
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	
87-86-5	PENTACHLOROPHENOL	ug/l	
85-01-8	PHENANTHRENE	ug/l	
108-95-2	PHENOL	ug/l	
129-00-0	PYRENE	ug/l	
<b>INORGANICS</b>			
7429-90-5	ALUMINUM	ug/l	
7440-36-0	ANTIMONY	ug/l	
7440-38-2	ARSENIC	ug/l	
7440-39-3	BARIUM	ug/l	
7440-41-7	BERYLLIUM	ug/l	
7440-43-9	CADMIUM	ug/l	
7440-70-2	CALCIUM	ug/l	
7440-47-3	CHROMIUM, TOTAL	ug/l	
7440-48-4	COBALT	ug/l	
7440-50-8	COPPER	ug/l	
7439-89-6	IRON	ug/l	
7439-92-1	LEAD	ug/l	
7439-95-4	MAGNESIUM	ug/l	
7439-96-5	MANGANESE	ug/l	
7439-97-6	MERCURY	ug/l	
7440-02-0	NICKEL	ug/l	
7440-09-7	POTASSIUM	ug/l	
7782-49-2	SELENIUM	ug/l	
7440-22-4	SILVER	ug/l	
7440-23-5	SODIUM	ug/l	
7440-28-0	THALLIUM	ug/l	
7440-62-2	VANADIUM	ug/l	
7440-66-6	ZINC	ug/l	
57-12-5	CYANIDE	ug/l	

**APPENDIX D**

**HYDROCARBON FINGERPRINT RESULTS**

# Environmental Forensic Report

## Halleck Street

SDG: PA131108 (MC26103)



*Report To:*

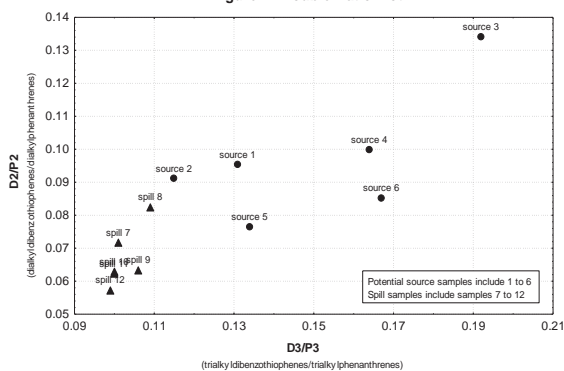
**Parsons**  
**200 Cottontail Lane**  
**Somerset, NJ**

*Report By:*

**META Environmental, Inc.**  
**115 Dean Avenue, Suite 300**  
**Box 13**  
**Franklin MA 02038**

**November 29, 2013**

Figure 1. Double Ratio Plot



**Identifying and allocating sources of pollutants in complex environments.**

---

## Certification

---

This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. The results included in this data report relate only to the samples as received and analyzed by the laboratory.

This report shall not be reproduced except in full, without the written approval of META Environmental, Inc.

Release of the data contained in this hardcopy or electronic copy data package has been authorized by the following signature(s).



---

David M. Mauro  
President, Senior Scientist

November 29, 2013

Date

META Environmental, Inc.  
115 Dean Avenue, Suite 300  
Franklin MA 02038  
Phone: 508-541-9146  
E-Mail [dmauro@metaenv.com](mailto:dmauro@metaenv.com)



---

## Sample Delivery Group

---

Project: Halleck Street  
 Client: Parsons  
 200 Cottontail Lane  
 Somerset, NJ Report  
 Contact: Eric Gaulin  
 Dates of Receipt: 11/8/2013  
 Sample Summary: The samples received for this project are summarized in the attached sample login forms in Appendix A.  
 META Project Number: P06022  
 SDG No.: PA131108 (MC26103)

---

## Chain of Custody

---

The sample was received by Accutest Laboratories of New England for META Environmental, Inc. in good condition. The internal temperature of the shipping container was within the recommended 0-6°C range and was as follows:

Samples received: 11/08/2013      0.5°C      Ice present

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page.

The disposal of samples and extracts will be authorized one month after the release of this data report. Sample disposal will be documented.

---

## Methods

---

The NAPL sample was prepared by solvent dilution (EPA 3580) using dichloromethane (DCM). The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8015M) for fingerprinting and TPH and by GC/MS/SIM (EPA 8270M) for mono- and polycyclic aromatic hydrocarbons (MAHs and PAHs), alkyl PAH homologues and other selected compounds.

---

## Results

---

Sample results are presented in several appendices which follow this narrative.

Appendix B: GC/FID Fingerprints  
 Appendix C: Data Summary Sheets  
 Appendix D: Extracted Ion Current Profiles (EICPs)

## Appendix E: Accutest Laboratory Report

---

## Quality Control

---

The quality control measures, criteria, and results are included in the Accutest laboratory report (Appendix E).

---

## Interpretation

---

### Introduction

One sample of non-aqueous phase liquid (NAPL) (SB-4(15-17)NAPL) was received by Accutest Laboratories in Marlborough MA for META from the Halleck Street site on 11/8/2013. The sample was analyzed for hydrocarbon fingerprint and an expanded list of MAHs and PAHs.

This report summarizes the findings and compares the samples.

### Sample-Specific Observations

#### SB-4(15-17)NAPL

Sample SB-4(15-17)NAPL contained pyrogenic material (see definitions). The pyrogenic material was indicated by the wide range distribution of unsubstituted mono- and polycyclic aromatic hydrocarbons (MAHs & PAHs), with the 2 and 3 ring PAHs most abundant. The abundance of naphthalene relative to the higher molecular weight PAHs suggested that the pyrogenic material in the sample had not experienced substantial weathering.

The ratio of fluoranthene to pyrene (Fl/Py – Table 1) as well as the double ratio plot of benzofluorenes/methylpyrenes (BF/MP) to Fl/Py (Figure 1) shows that sample SB-4(15-17)NAPL was very similar to tars in META's reference library that were formed from manufactured gas plants (MGPs) utilizing carbureted water gas processes.

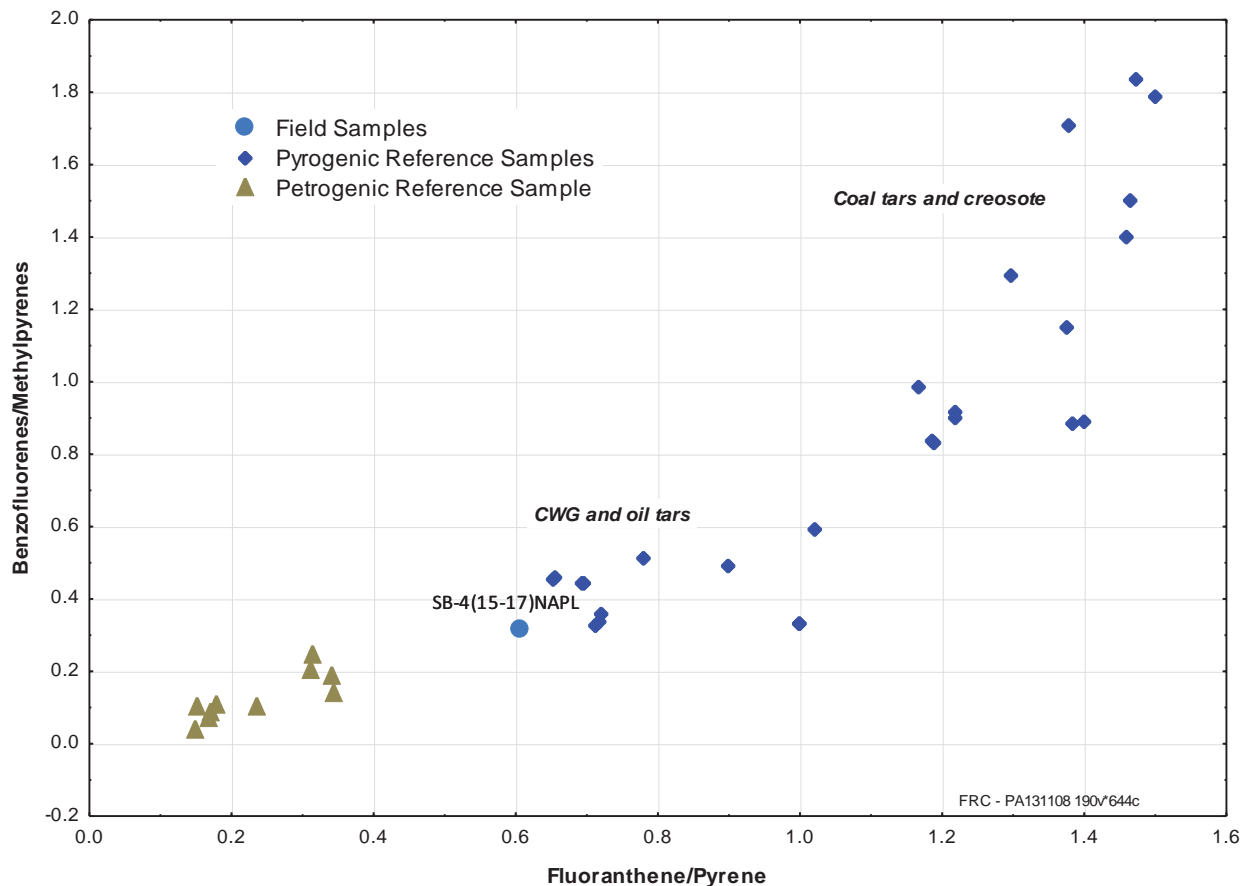
No other pyrogenic or petrogenic substances were detected in the sample.

**Table 1. Selected Source and Weathering Ratios**

	Fl/Py	D/F	C3D/C3PA	C2D/C2PA	BF/MP
SB-4(15-17)NAPL	0.606	0.194	0.702	0.475	0.318

#### Ratios:

Fl/Py	fluoranthene/pyrene
D/F	dibenzofuran/fluorene
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes
BF/MP	benzofluorenes/methylpyrenes
NC	Not calculable

**Figure 1. Selected Diagnostic Ratios**


---

## Definitions

---

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

---

## References

---

“Chemical Fingerprinting of Hydrocarbons,” in: Introduction to Environmental Forensics. B.L. PA131108 MC26103 Halleck St Report 5  
November 29, 2013

Murphy and R.D. Morrison editors, Academic Press, San Diego, CA 2002.

Mauro, D.M., "Chemical Source Attribution at former MGP Sites," EPRI Report 1000728, December 2000.

# **Appendix A**

## **Chains of Custody**

---

META Environmental, Inc. Sample Receipt Log									
Lab ID	Field ID	Matrix	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
PA131108-01	SB-4 (15-17)NAPL	soil	10/31/2013	11/8/2013	P06022-60		MC36103	Parsons	Halleck St

Logged By: \_\_\_\_\_

Date: \_\_\_\_\_

Reviewed By: \_\_\_\_\_

Date: \_\_\_\_\_

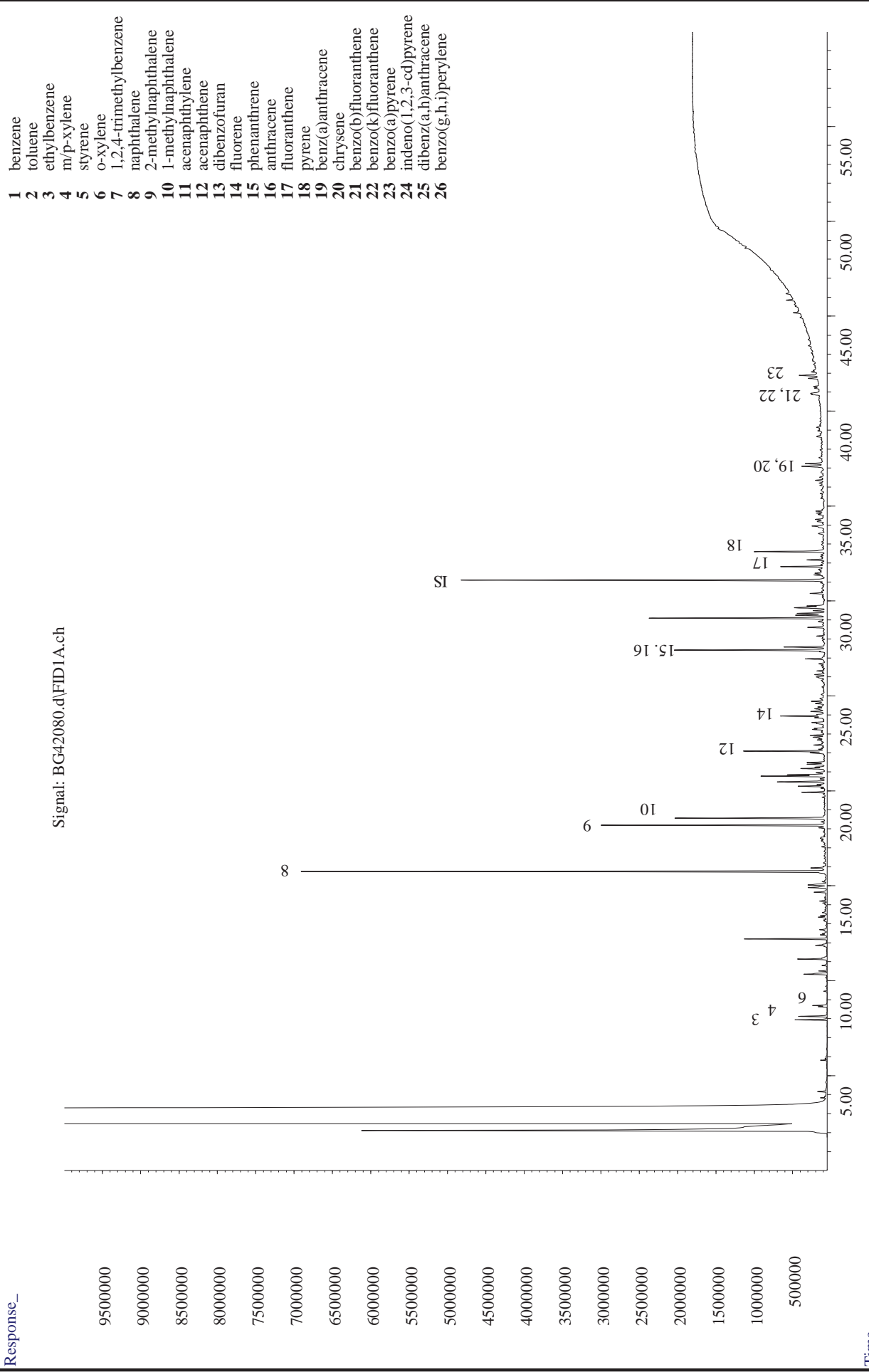
# **Appendix B**

## **GC/FID Fingerprints**

---

# GC/FID Fingerprint

10 of 133



**Field ID:** SB-4(15-17)NAPL  
**Laboratory ID:** MC26103-1  
**Method:** EPA 8015M

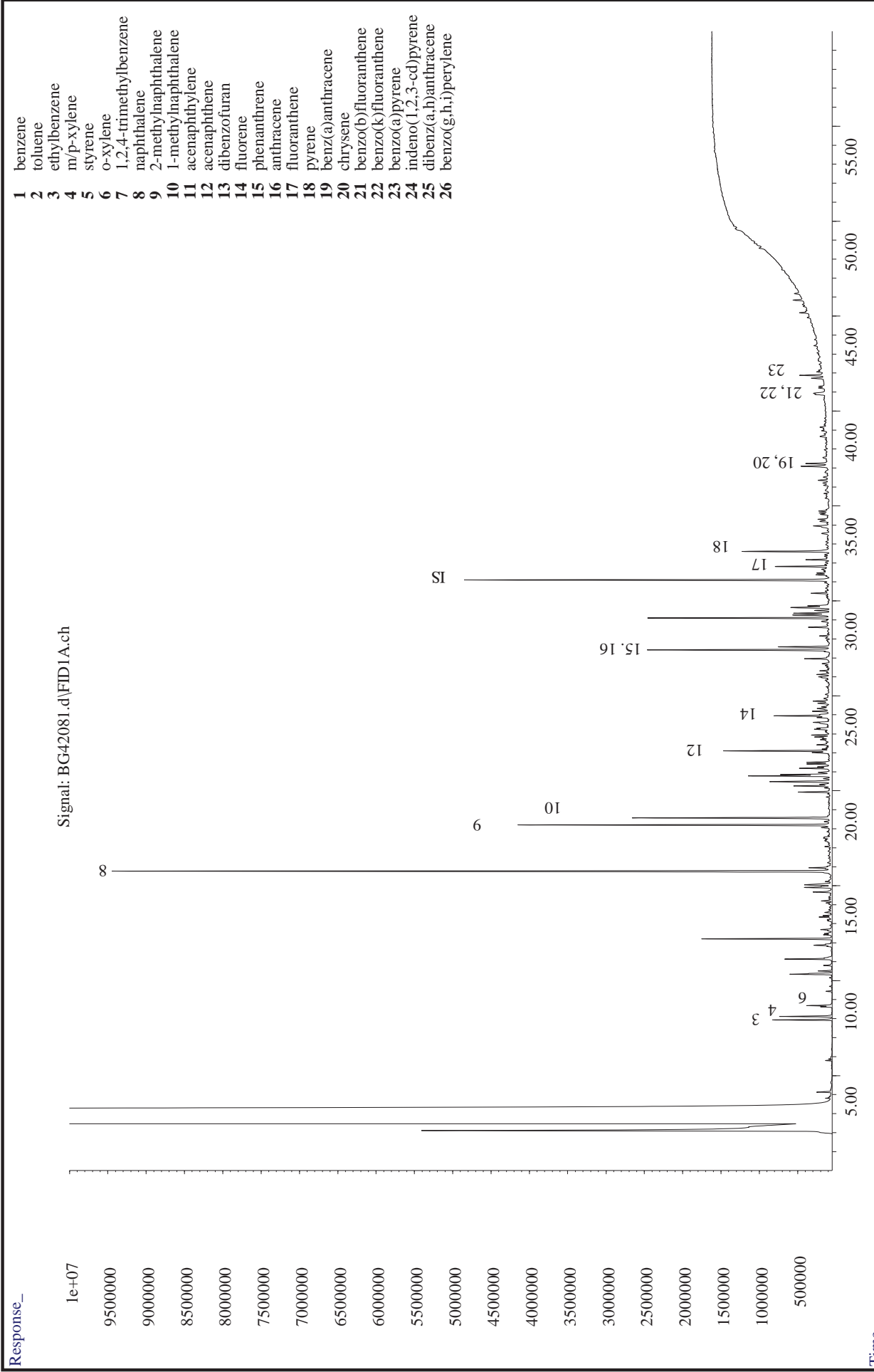
**Analysis Date:** 11/20/2013

IS - 5 $\alpha$ -androstanone  
 SS2 - o-terphenyl



# GC/FID Fingerprint

11 of 133



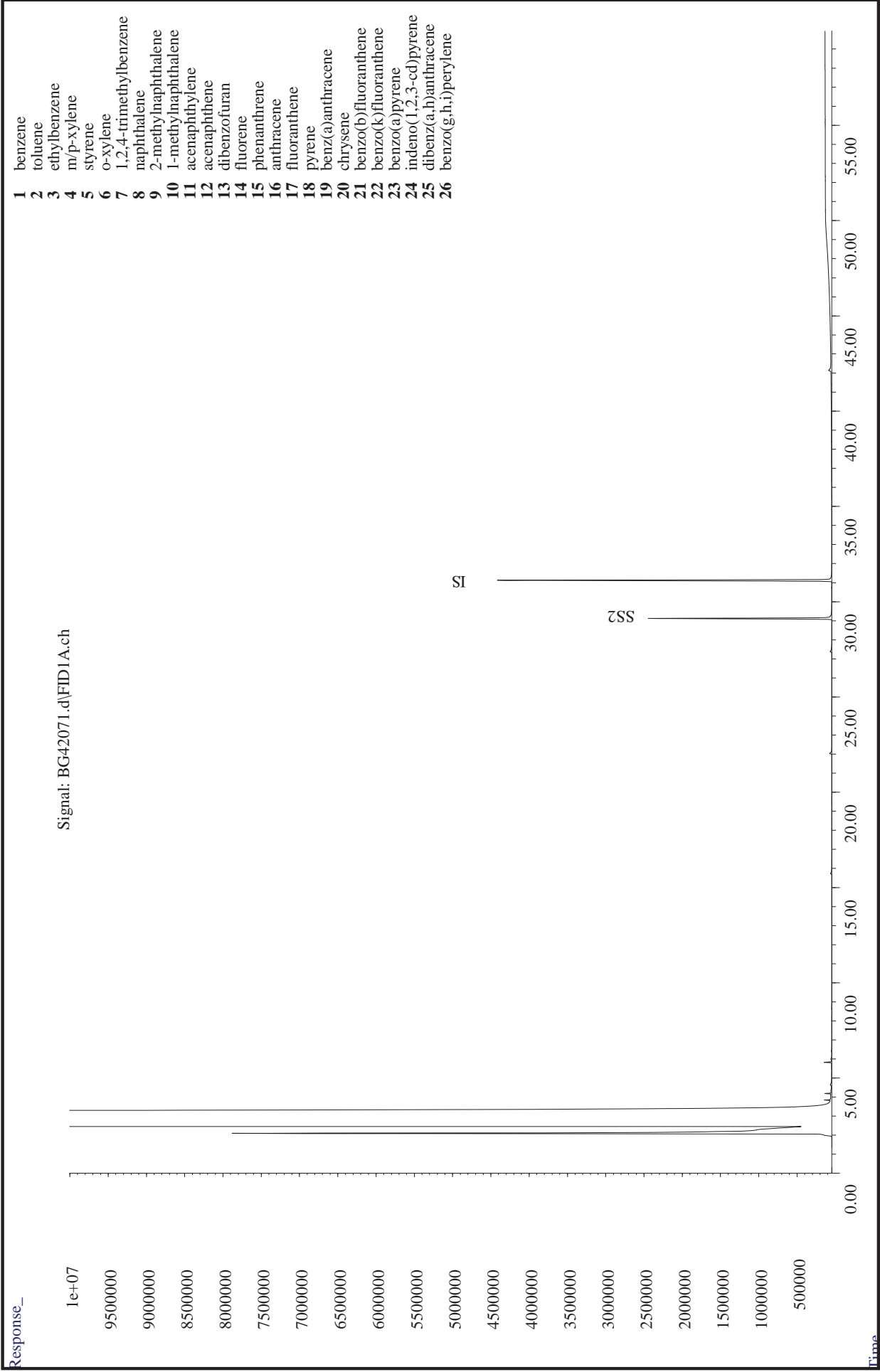
**Field ID:** SB-4(15-17)NAPL dup  
**Laboratory ID:** OP35833-dup1  
**Method:** EPA 8015M

**Analysis Date:** 11/20/2013

IS - 5 $\alpha$ -androsterone  
 SS2 - o-terphenyl

# GC/FID Fingerprint

12 of 133



- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene

**Analysis Date: 11/20/2013**

IS - 5 $\alpha$ -androsterone  
SS2 - o-terphenyl

**Field ID:** Method Blank  
**Laboratory ID:** op35833-MB  
**Method:** EPA 8015M

# **Appendix C**

## **Data Summary Sheets**

---

Accutest Labs of New England, Inc. 11/29/2013  
 Job Number: MC26103  
 Account: META Environmental, Inc.  
 Project: Parsons, Halleck Street, NJ  
 Project Number:

Client Sample ID: **SB-4(15-17)NAPL**  
 Lab Sample ID: MC26103-1  
 Date Sampled: 10/31/2013  
 Matrix: Oil

## GC/MS Semi-volatiles (D5739-06/8270C SIM)

Benzene	mg/kg		10900
C1-Benzene	mg/kg		1580
C2-Benzenes	mg/kg		72300
C3-Benzenes	mg/kg		82600
C4-Benzenes	mg/kg		43300
C5-Benzenes	mg/kg		12800
Toluene	mg/kg		2190
Ethylbenzene	mg/kg		55300
m,p-Xylene	mg/kg		52800
Styrene	mg/kg		11300
o-Xylene	mg/kg		23800
Isopropylbenzene	mg/kg		6660
n-Propylbenzene	mg/kg		2440
1,3,5-Trimethylbenzene	mg/kg		13200
1,2,3-Trimethylbenzene	mg/kg		13500
1,2,4-Trimethylbenzene	mg/kg		40900
t-Butylbenzene	mg/kg		5370
sec-Butylbenzene	mg/kg	ND	
p-Isopropyltoluene	mg/kg		6740
n-Butylbenzene	mg/kg		1480
trans-Decalin	mg/kg	ND	
cis-Decalin	mg/kg	ND	
Benzo(b)thiophene	mg/kg		26600
Naphthalene	mg/kg		744000
2-Methylnaphthalene	mg/kg		310000
1-Methylnaphthalene	mg/kg		195000
C1-Naphthalenes	mg/kg		331000
C2-Naphthalenes	mg/kg		155000
C3-Naphthalenes	mg/kg		51800
C4-Naphthalenes	mg/kg		14800
Biphenyl	mg/kg		27300
Acenaphthylene	mg/kg		25200
Acenaphthene	mg/kg		102000
Dibenzofuran	mg/kg		9390
Fluorene	mg/kg		48300
C1-Fluorenes	mg/kg		23600
C2-Fluorenes	mg/kg		13900
C3-Fluorenes	mg/kg		6710
Dibenzothiophene	mg/kg		28500

Client Sample ID:	<b>SB-4(15-17)NAPL</b>
Lab Sample ID:	MC26103-1
Date Sampled:	10/31/2013
Matrix:	Oil

## GC/MS Semi-volatiles (D5739-06/8270C SIM)

C1-Dibenzothiophenes	mg/kg	26300
C2-Dibenzothiophenes	mg/kg	16100
C3-Dibenzothiophenes	mg/kg	6760
C4-Dibenzothiophenes	mg/kg	1670
Phenanthrene	mg/kg	179000
Anthracene	mg/kg	53200
C1-Phenanthrenes/Anthracenes	mg/kg	90900
C2-Phenanthrenes/Anthracenes	mg/kg	33900
C3-Phenanthrenes/Anthracenes	mg/kg	9630
C4-Phenanthrenes/Anthracenes	mg/kg	2610
Retene	mg/kg	1020
Benzo(b)naphtho(2,1-d)thiophene	mg/kg	4680
Fluoranthene	mg/kg	53200
Pyrene	mg/kg	87800
C1-Fluoranthenes/Pyrenes	mg/kg	45700
C2-Fluoranthenes/Pyrenes	mg/kg	11500
C3-Fluoranthenes/Pyrenes	mg/kg	2630
Benzo(b)fluorene	mg/kg	3540
Benzo(c)fluorene	mg/kg	2140
2-Methylpyrene	mg/kg	6480
4-Methylpyrene	mg/kg	5760
1-Methylpyrene	mg/kg	5610
Benzo(a)anthracene	mg/kg	22200
Chrysene	mg/kg	22000
C1-Benzo(a)anthracenes/Chrysenes	mg/kg	10300
C2-Benzo(a)anthracenes/Chrysenes	mg/kg	4160
C3-Benzo(a)anthracenes/Chrysenes	mg/kg	ND
C4-Benzo(a)anthracenes/Chrysenes	mg/kg	ND
Benzo(b)fluoranthene	mg/kg	8440
Benzo(k)fluoranthene	mg/kg	12200
Benzo(e)pyrene	mg/kg	11700
Benzo(a)pyrene	mg/kg	21800
Perylene	mg/kg	2850
Indeno(1,2,3-cd)pyrene	mg/kg	7000
Dibenzo(a,h)anthracene	mg/kg	2040
Benzo(g,h,i)perylene	mg/kg	9150
Coronene	mg/kg	2100

## GC Semi-volatiles (ASTM D3328-06)

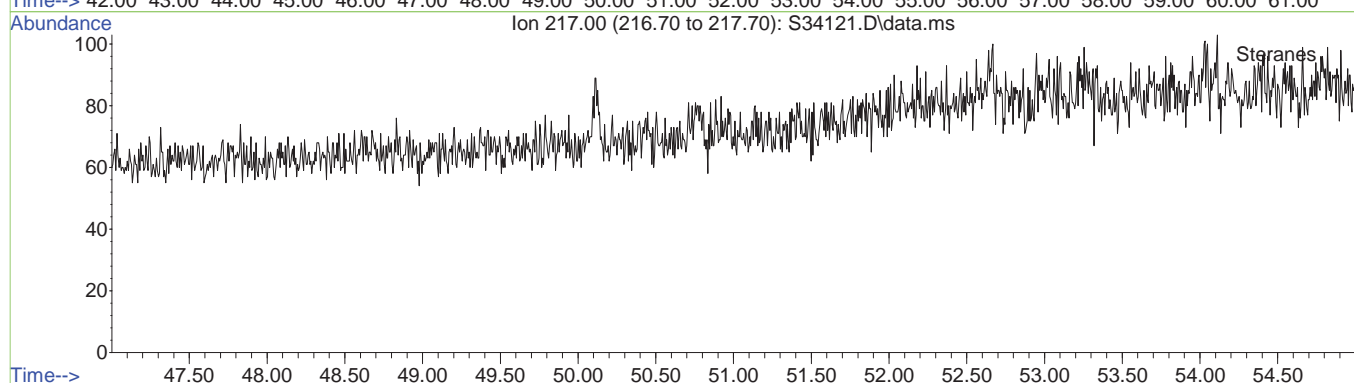
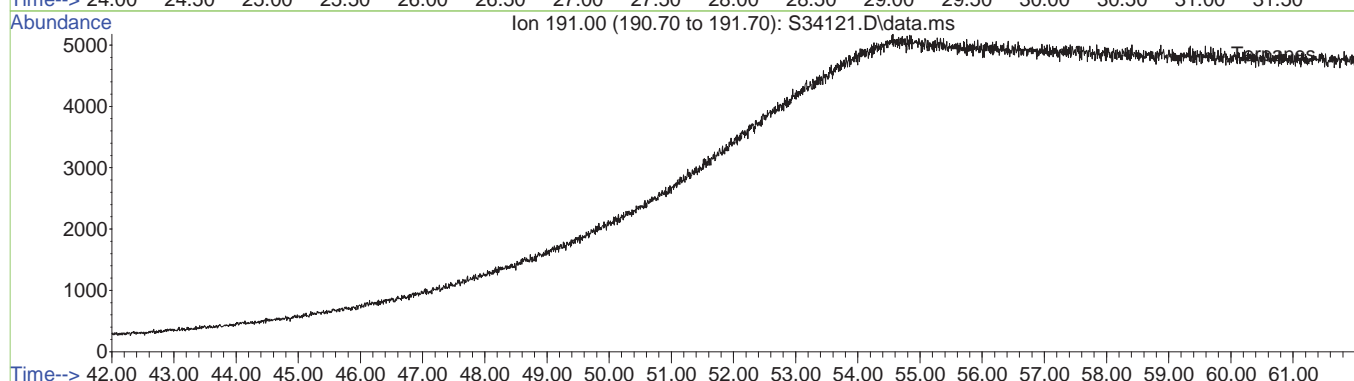
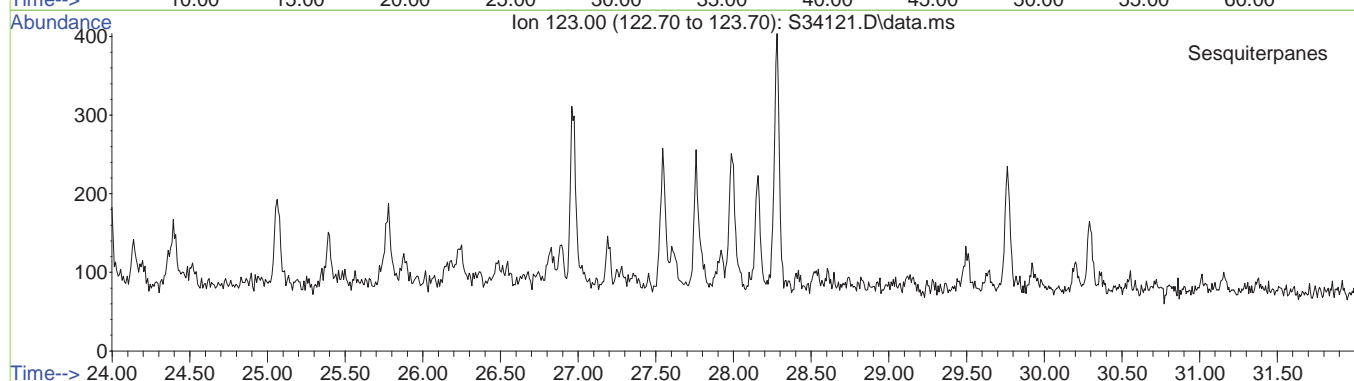
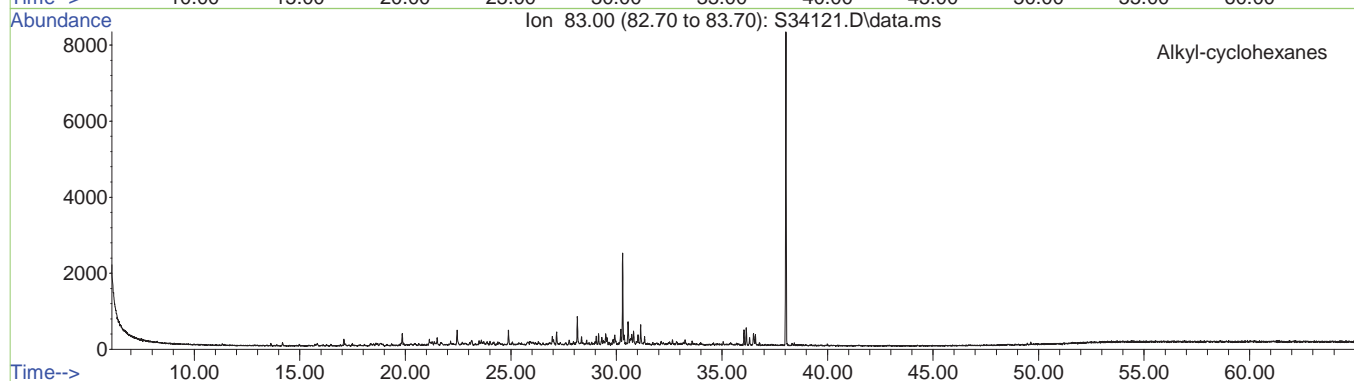
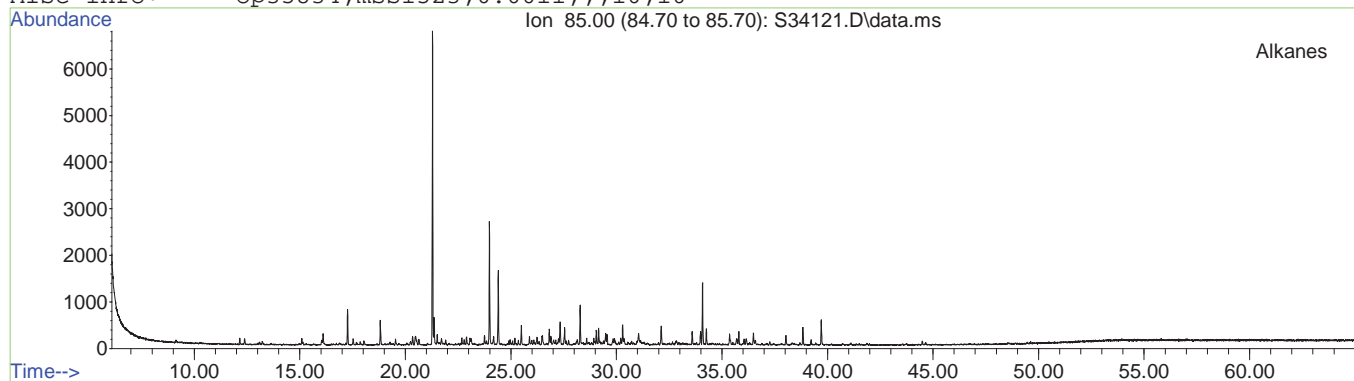
TPH (C8-C40)	mg/kg	2510000
--------------	-------	---------

# **Appendix D**

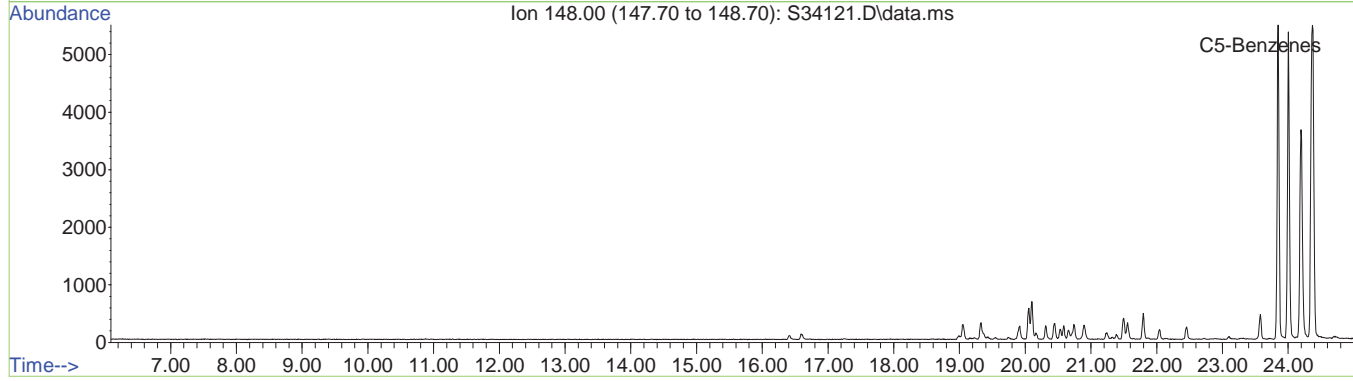
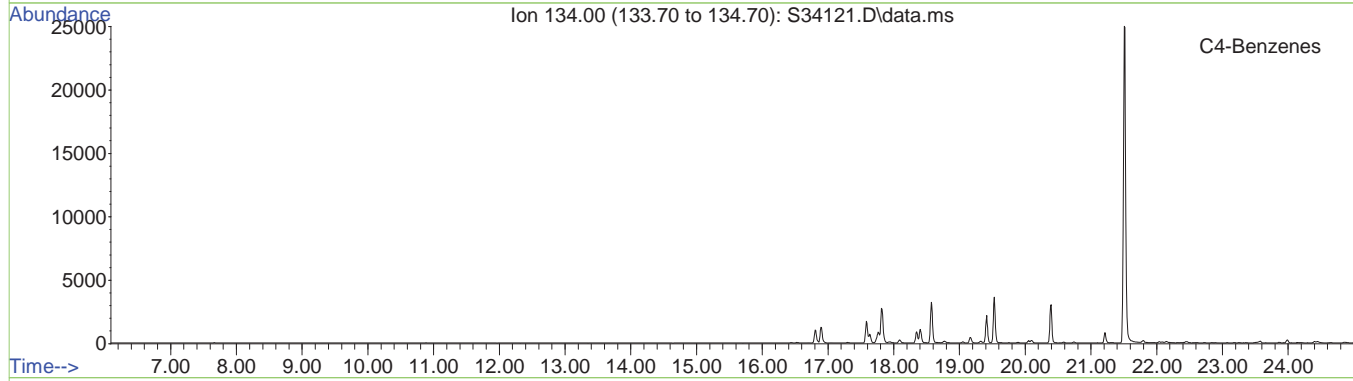
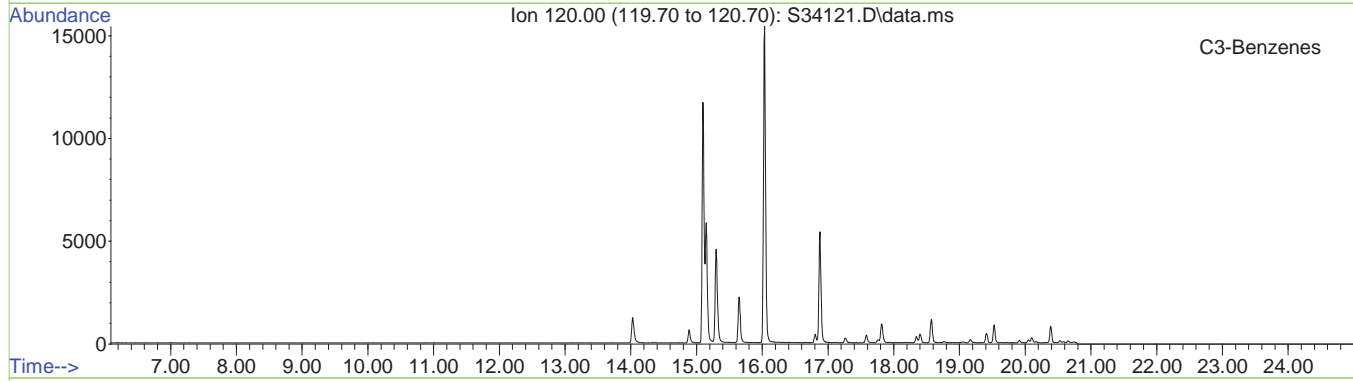
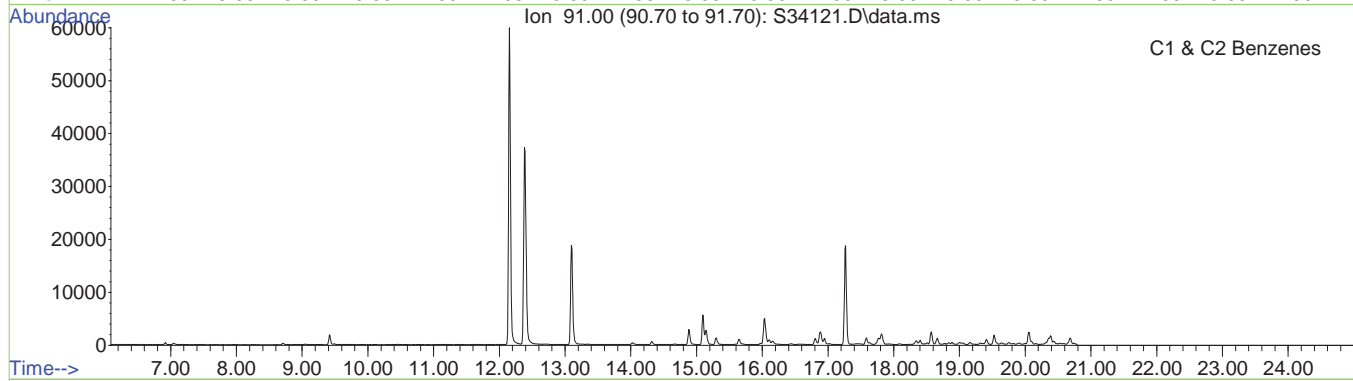
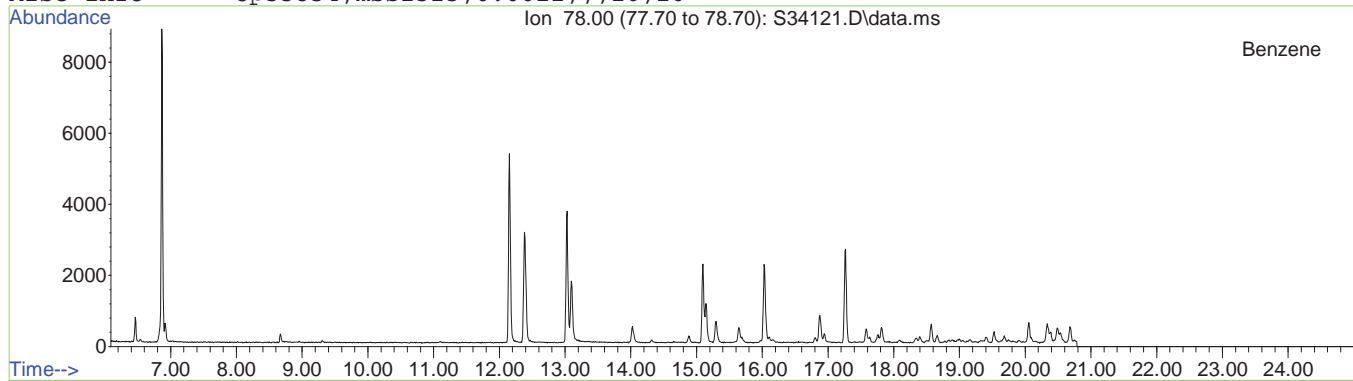
## **Extracted Ion Current Profiles (EICPs)**

---

File: Z:\1\data\S131120\S34121.D  
Date Acquired: 20 Nov 2013 7:05 pm  
Sample Name: mc26103-1  
Misc Info: op35834,mss1523,0.0011,,10,10

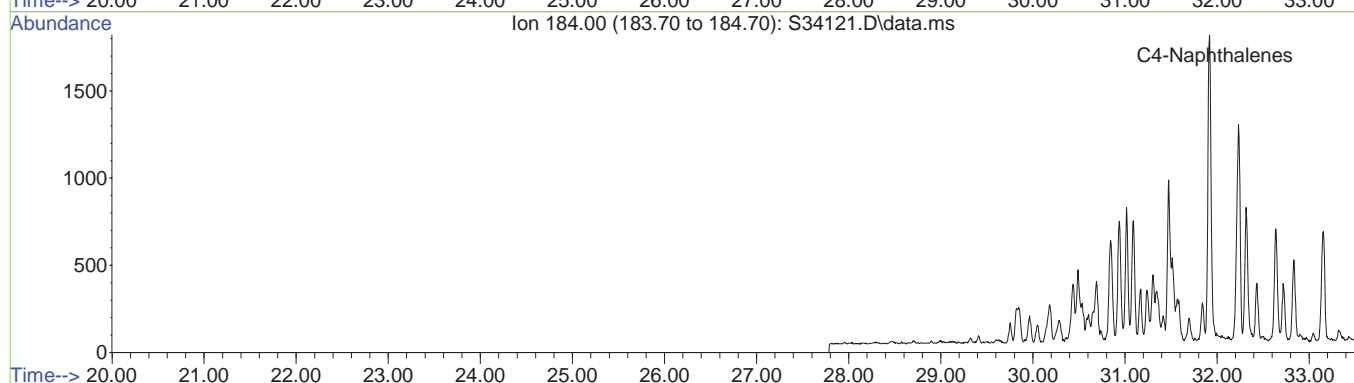
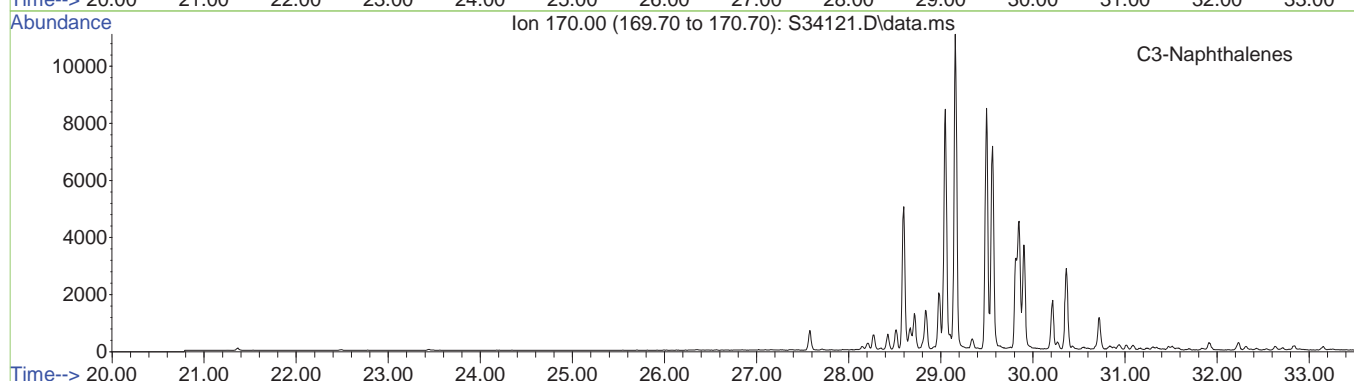
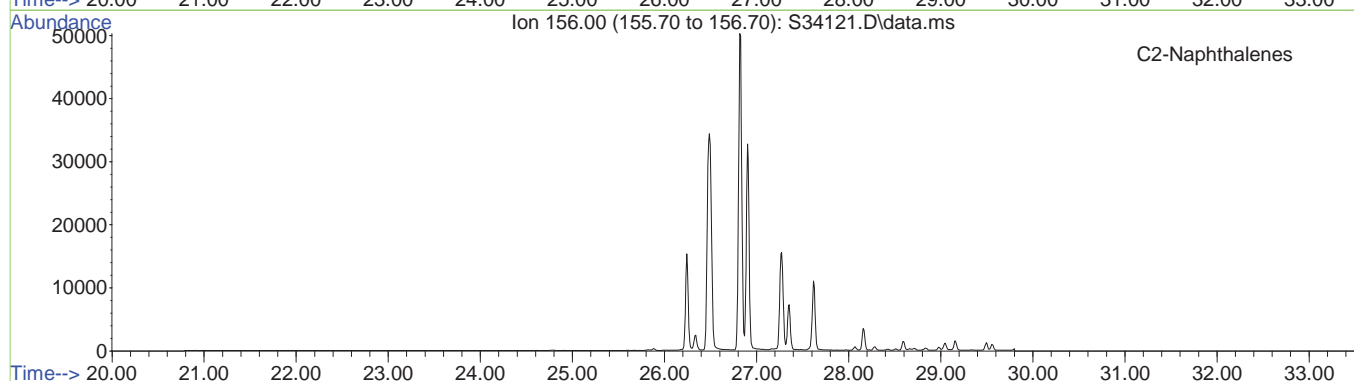
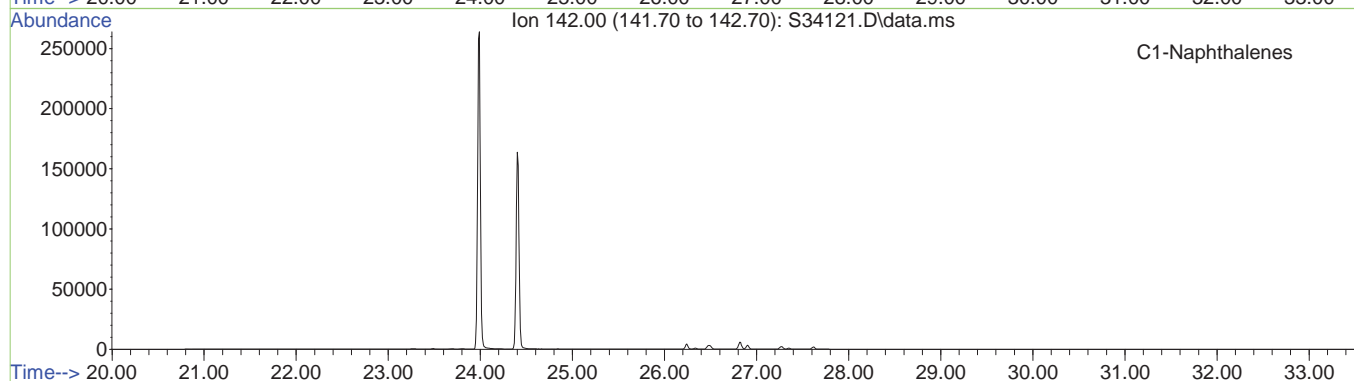
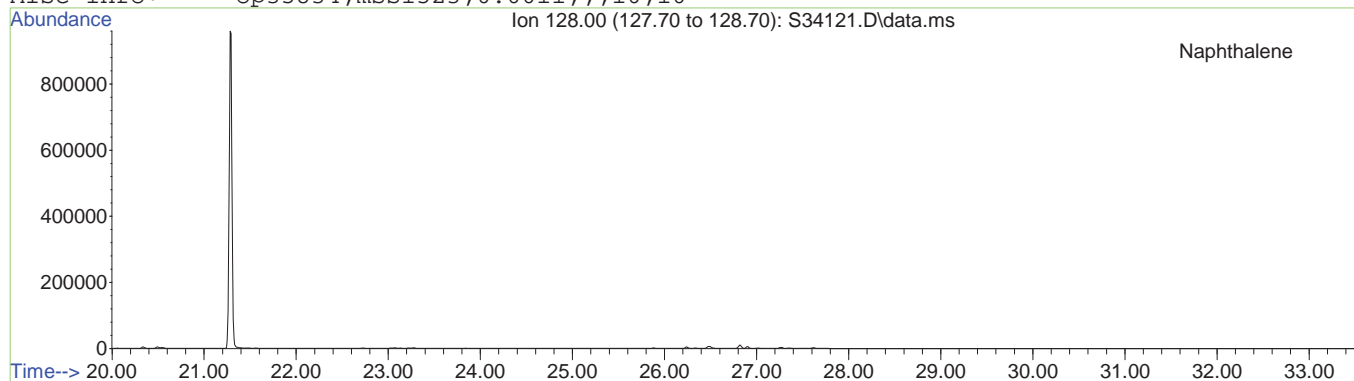


File: Z:\1\data\S131120\S34121.D  
Date Acquired: 20 Nov 2013 7:05 pm  
Sample Name: mc26103-1  
Misc Info: op35834,mss1523,0.0011,,10,10

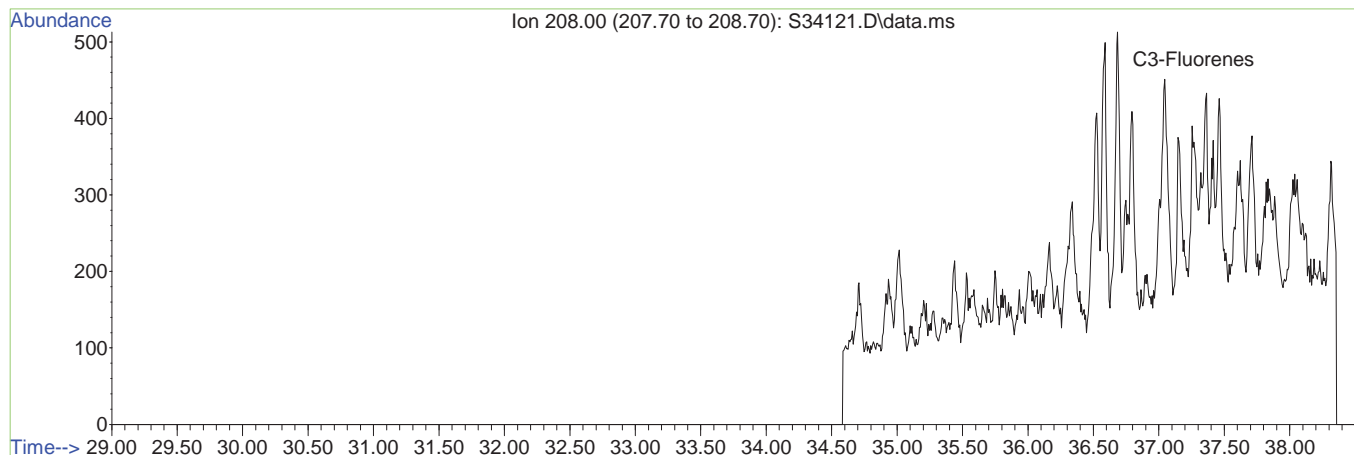
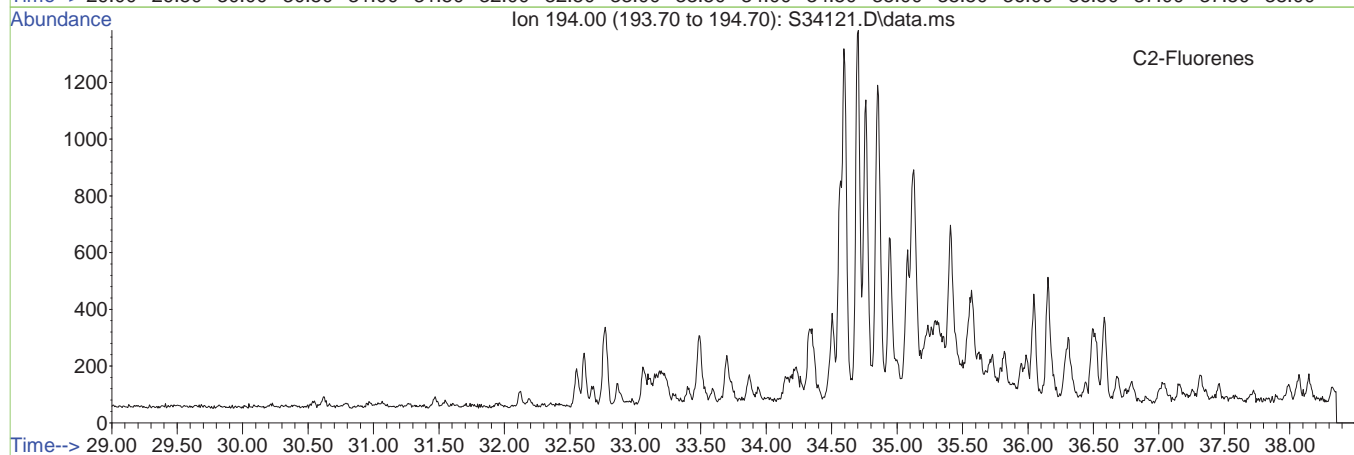
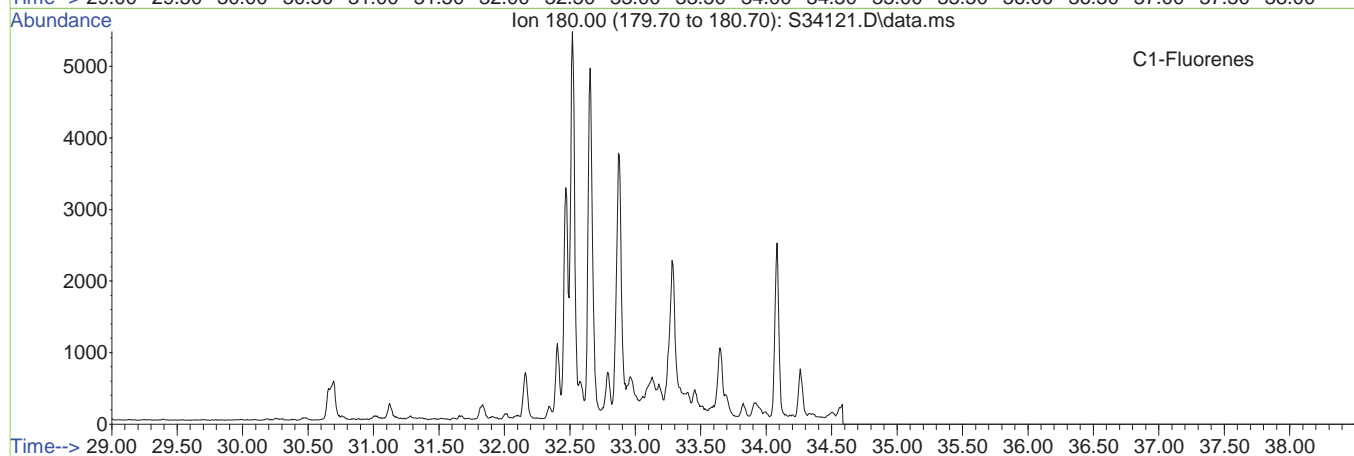
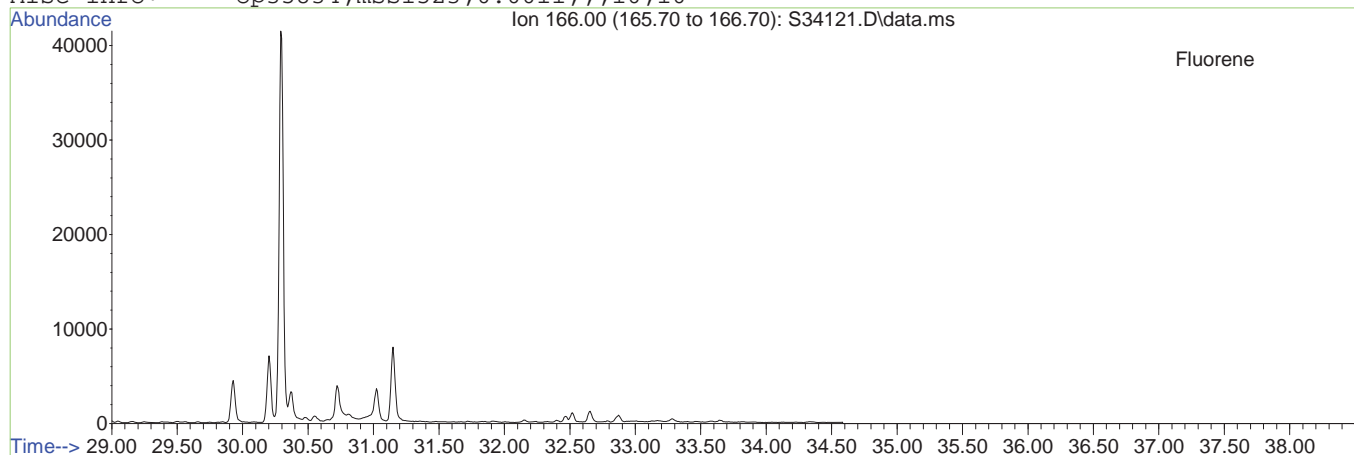




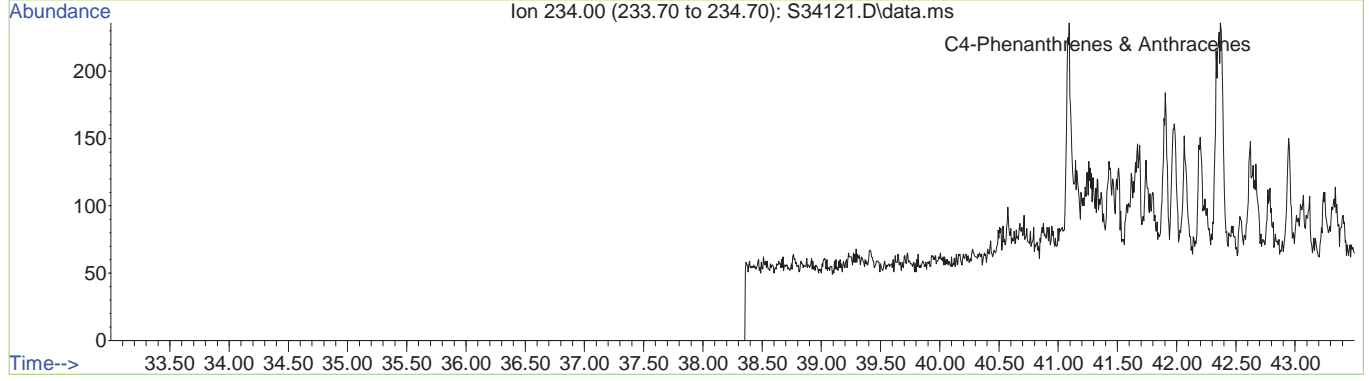
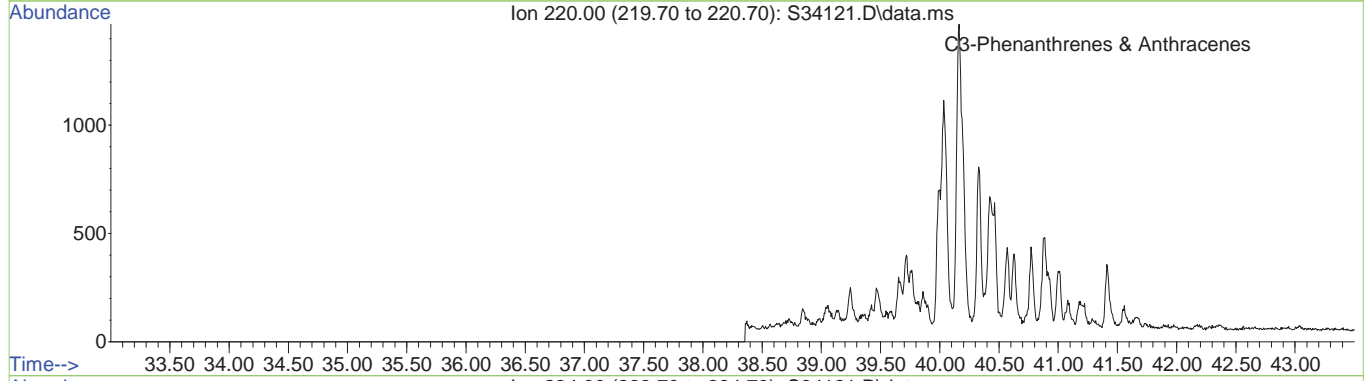
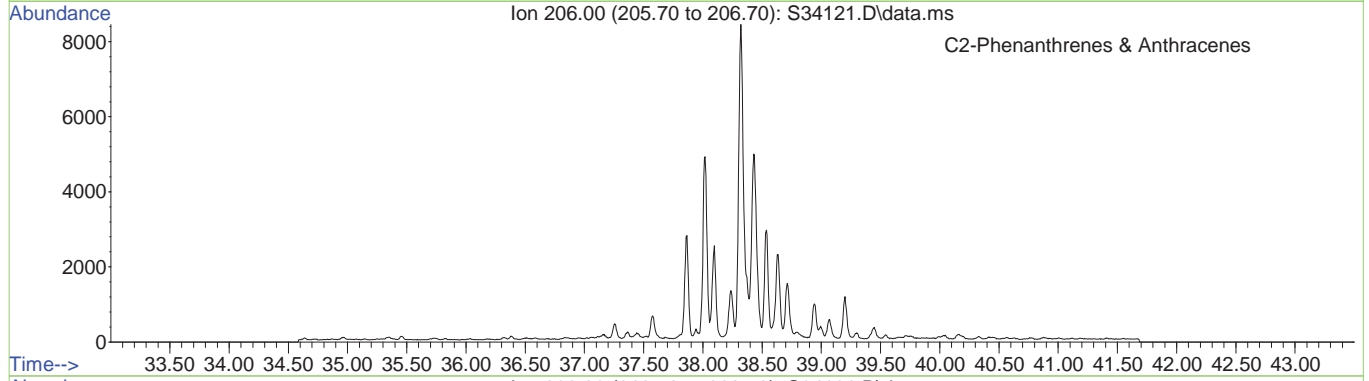
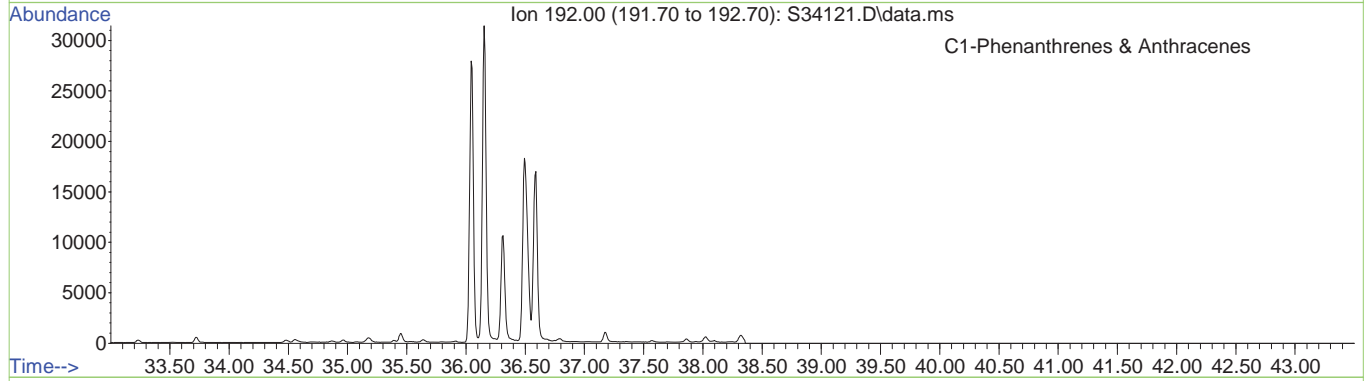
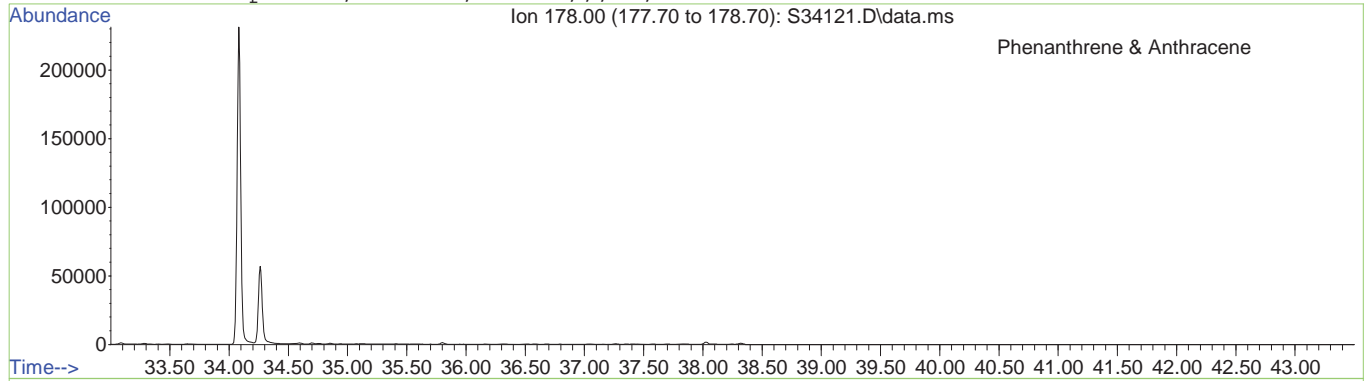
File: Z:\1\data\S131120\S34121.D  
Date Acquired: 20 Nov 2013 7:05 pm  
Sample Name: mc26103-1  
Misc Info: op35834,mss1523,0.0011,,10,10



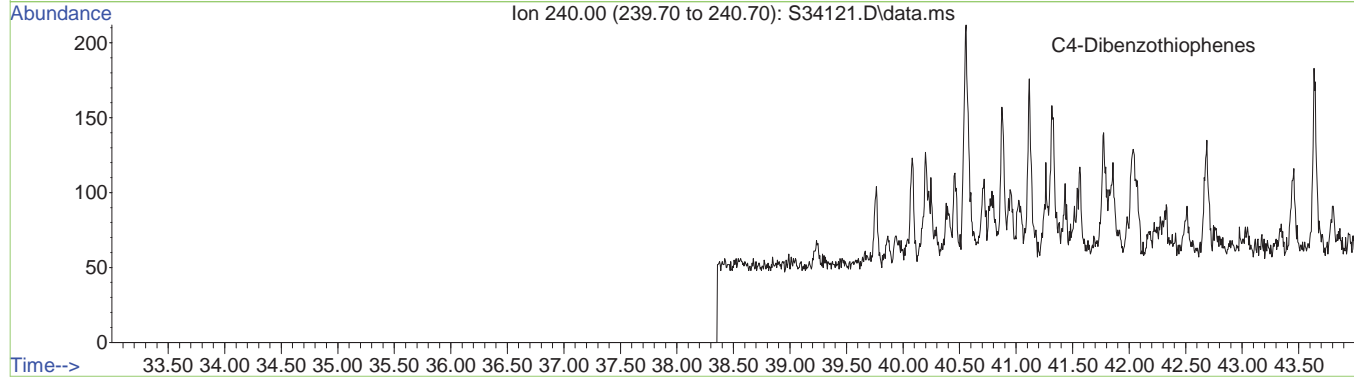
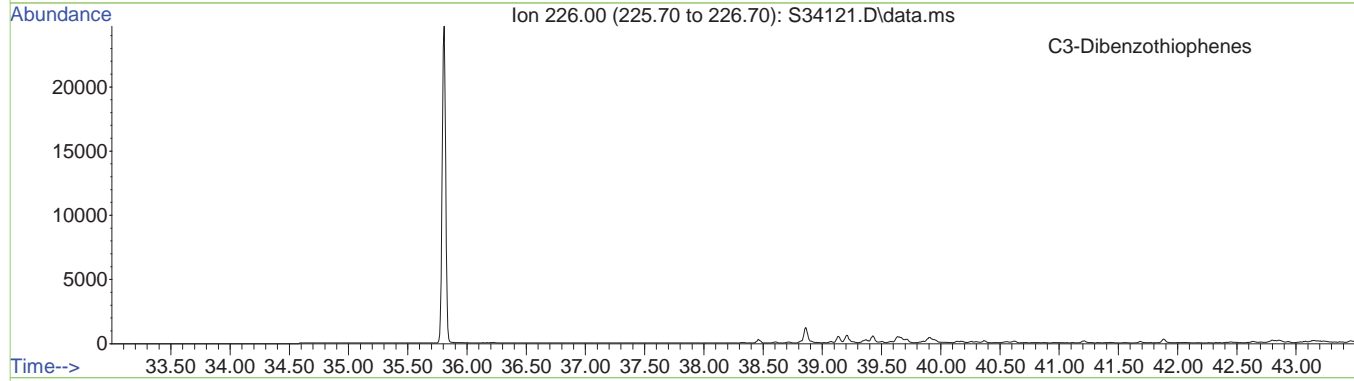
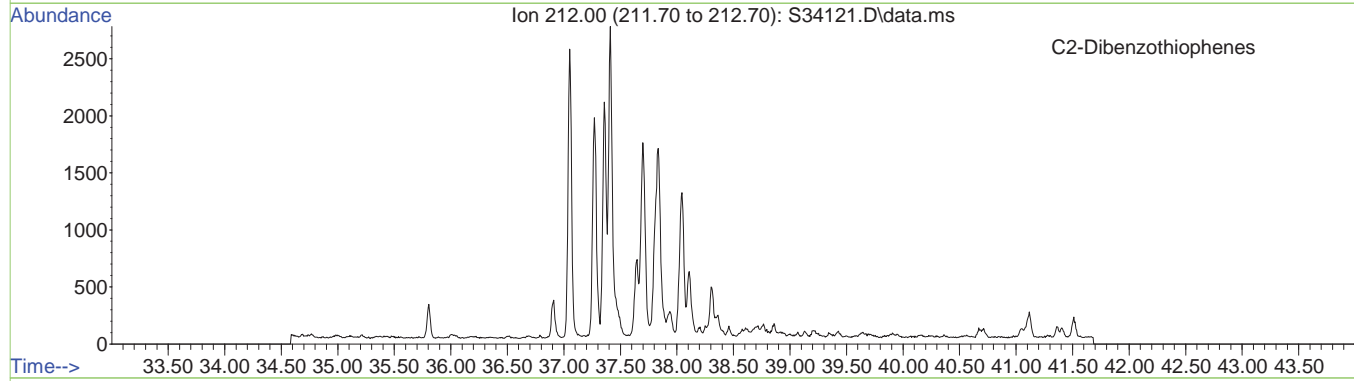
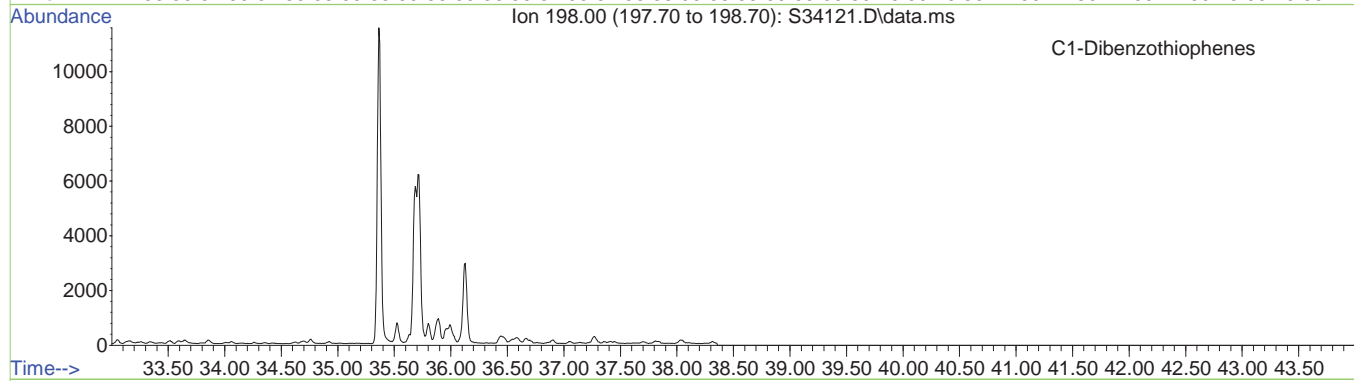
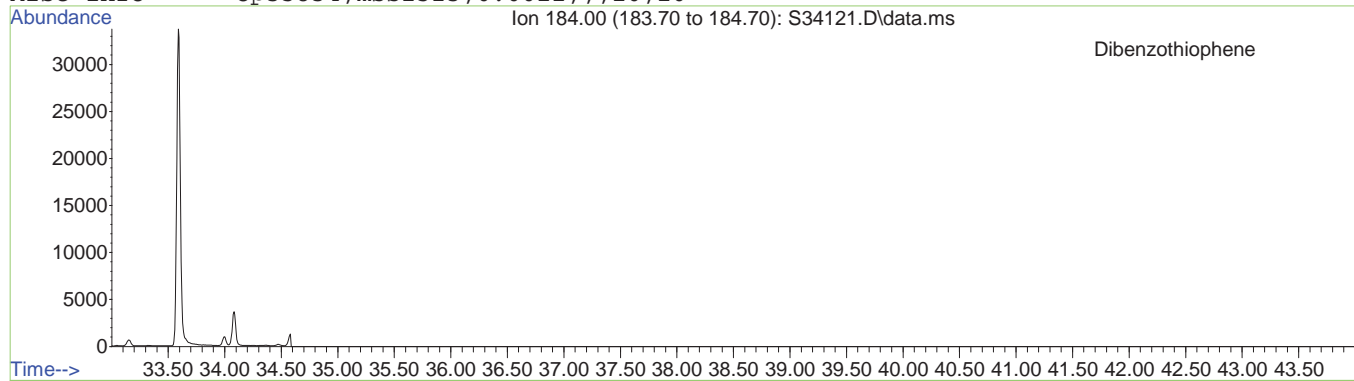
File: Z:\1\data\S131120\S34121.D  
Date Acquired: 20 Nov 2013 7:05 pm  
Method File: SAPAHSIM-MTBE.M  
Sample Name: mc26103-1  
Misc Info: op35834,mss1523,0.0011,,10,10



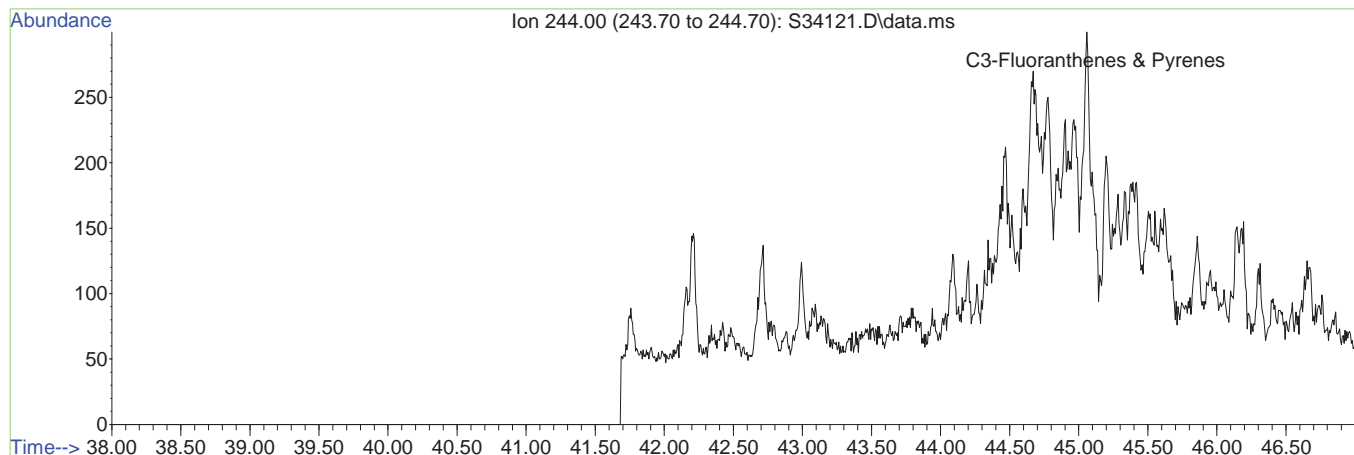
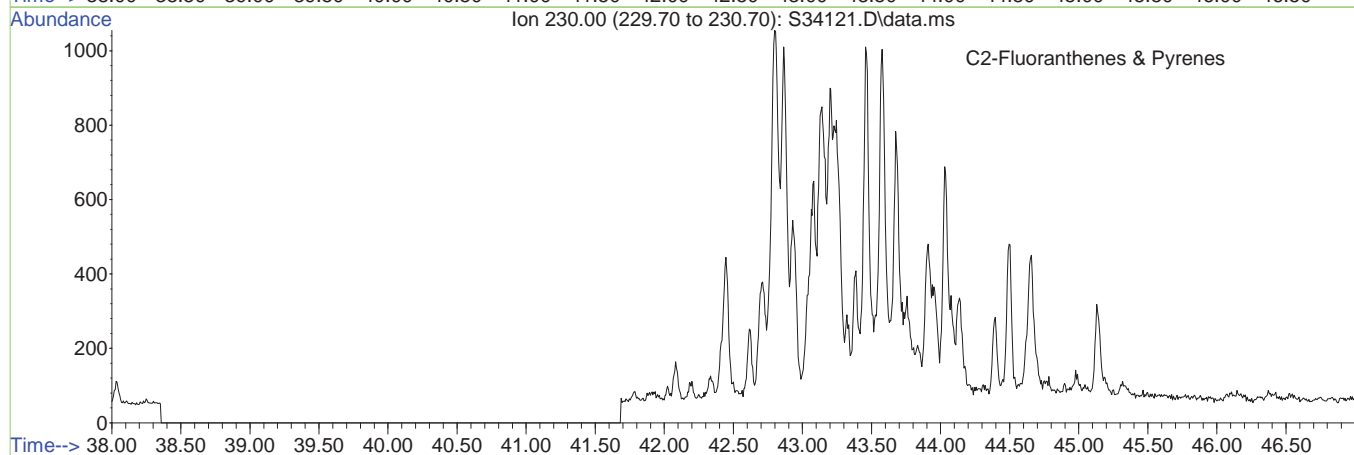
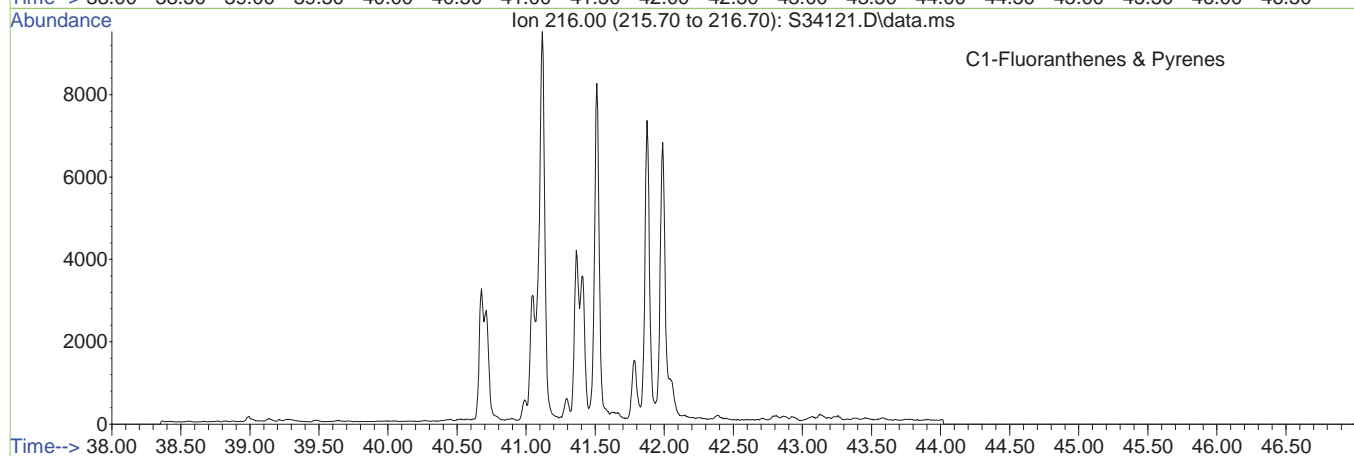
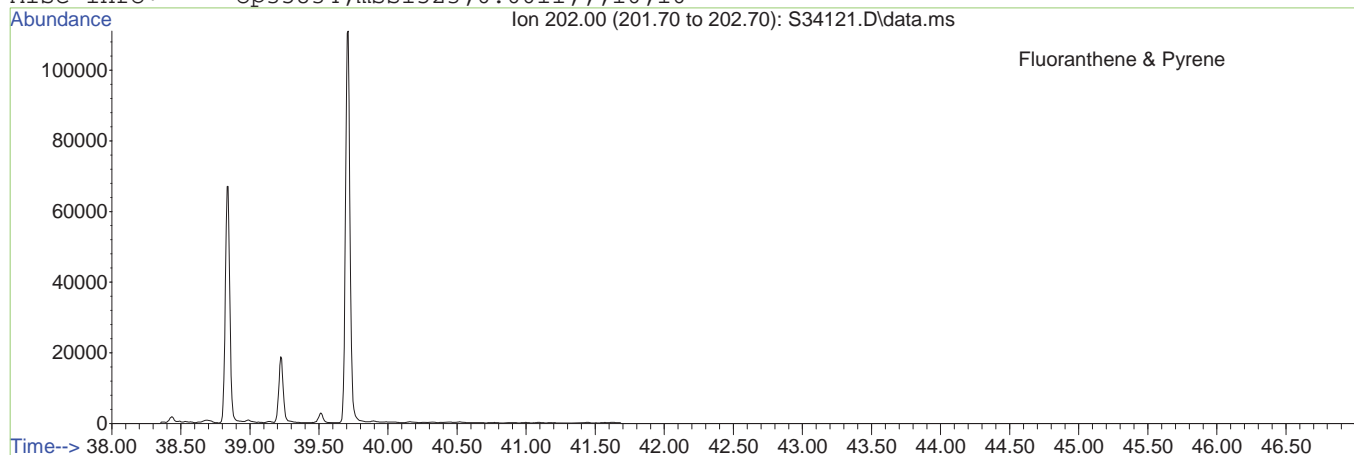
File: Z:\1\data\S131120\S34121.D  
Date Acquired: 20 Nov 2013 7:05 pm  
Sample Name: mc26103-1  
Misc Info: op35834,mss1523,0.0011,,10,10



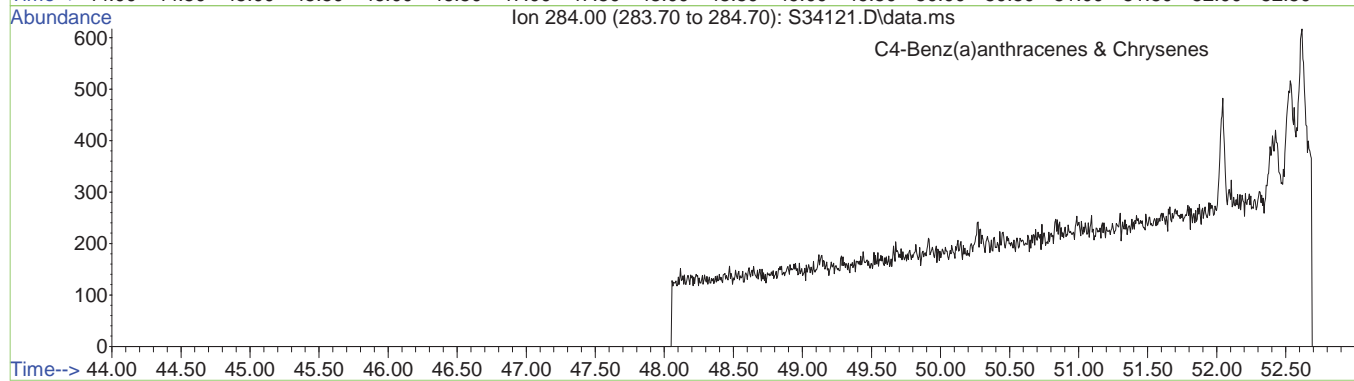
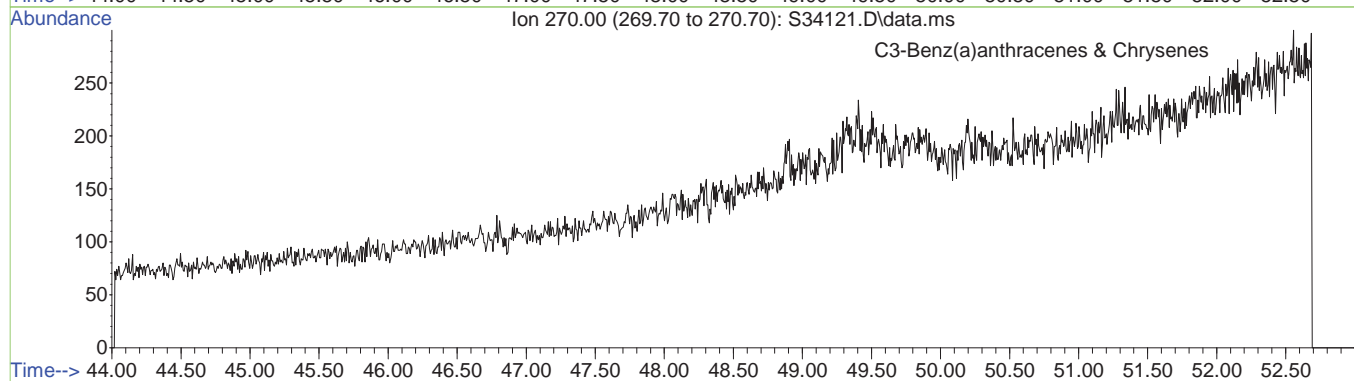
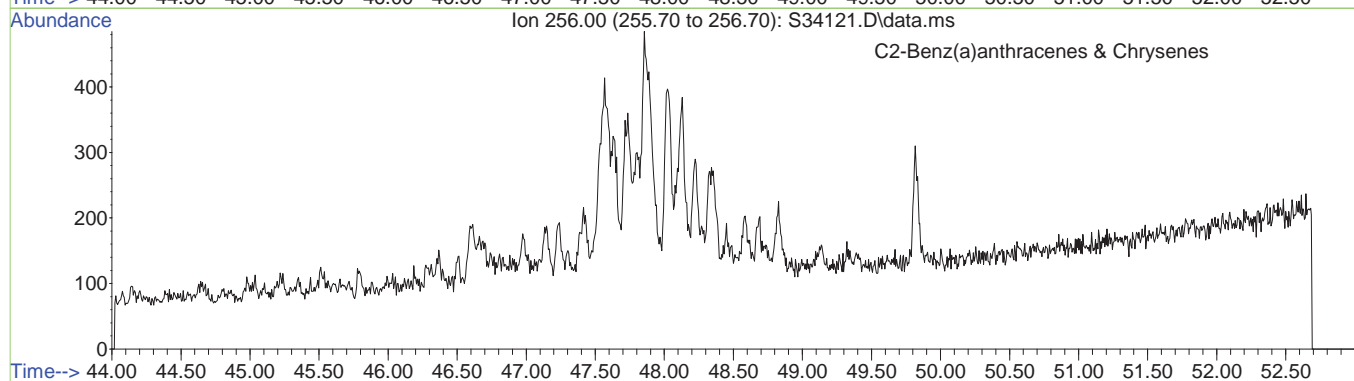
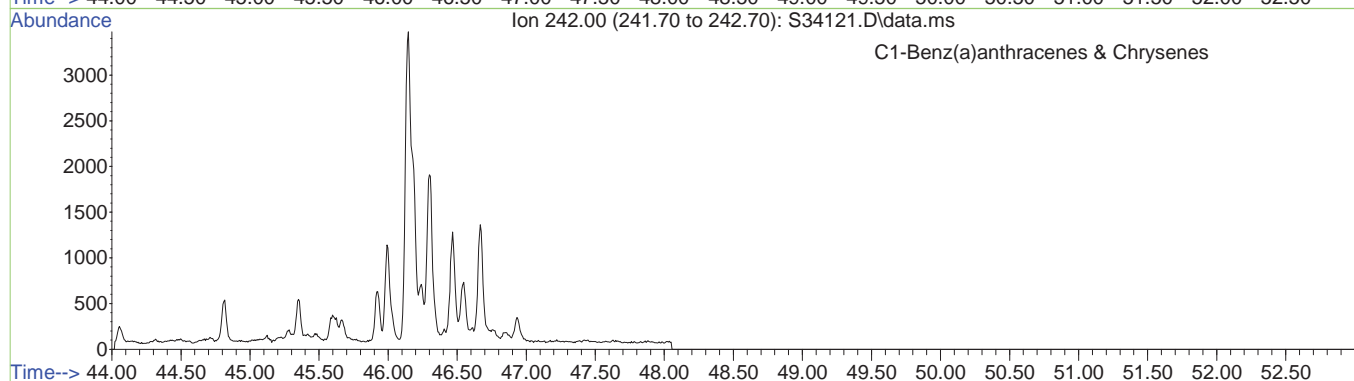
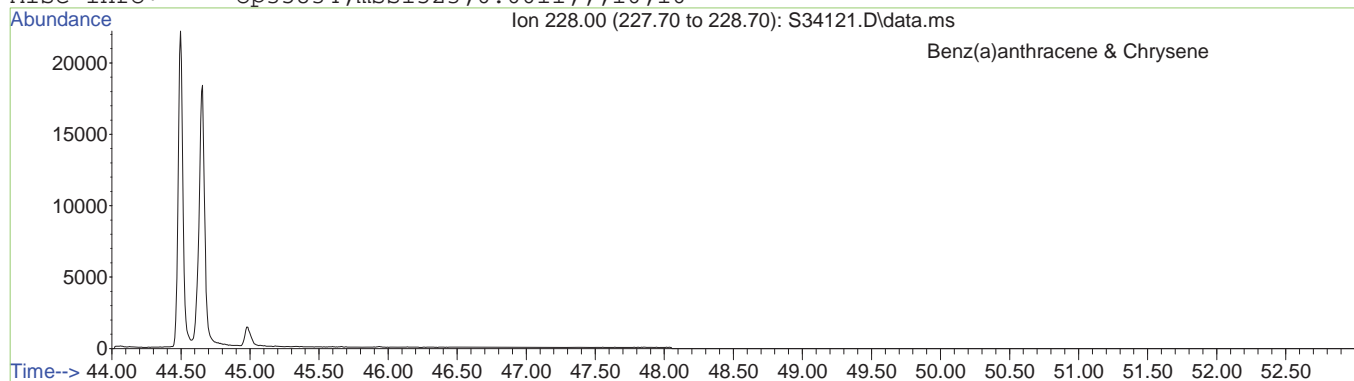
File: Z:\1\data\S131120\S34121.D  
 Date Acquired: 20 Nov 2013 7:05 pm  
 Sample Name: mc26103-1  
 Misc Info: op35834,mss1523,0.0011,,,10,10



File: Z:\1\data\S131120\S34121.D  
Date Acquired: 20 Nov 2013 7:05 pm  
Method File: SAPAHSIM-MTBE.M  
Sample Name: mc26103-1  
Misc Info: op35834,mss1523,0.0011,,10,10



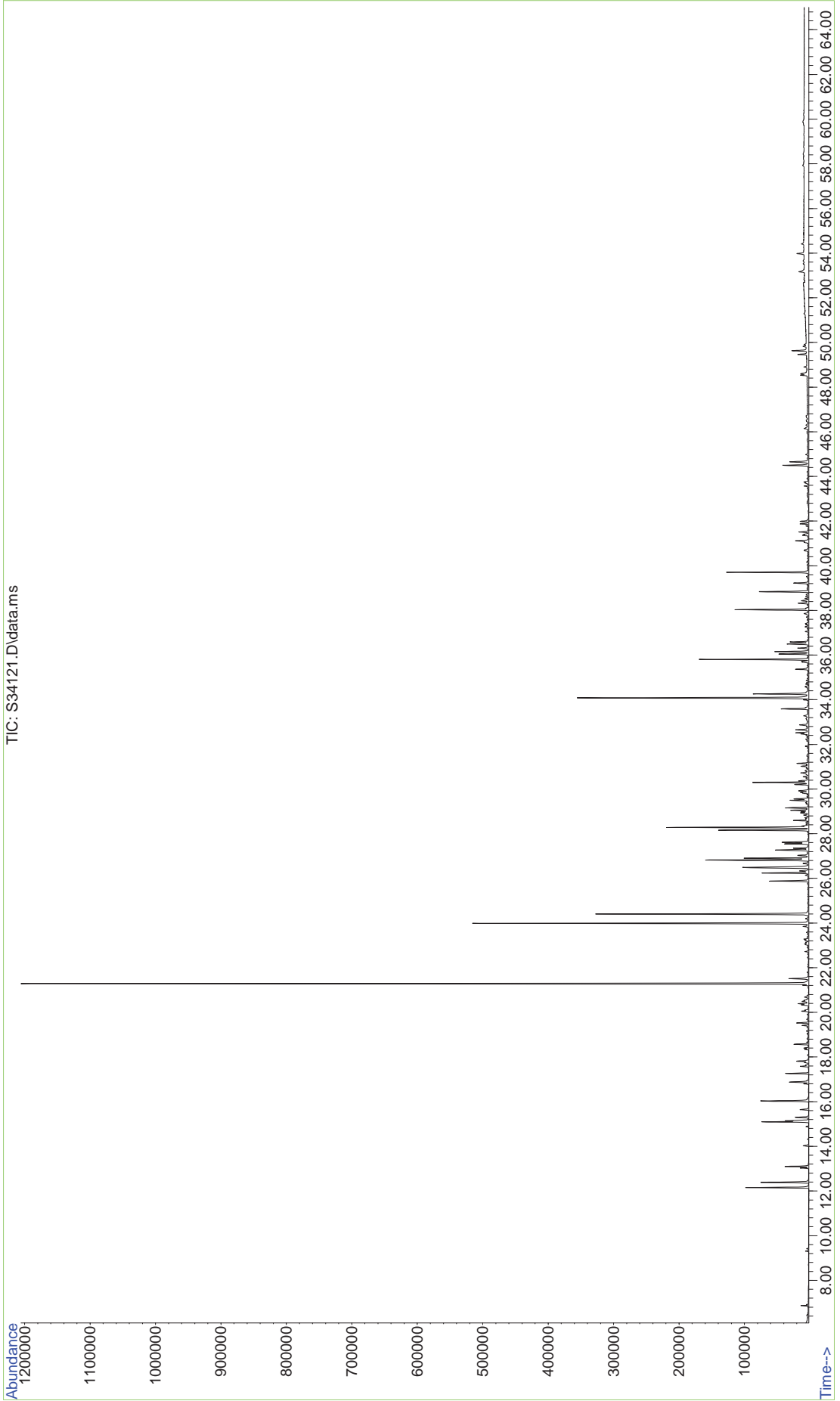
File: Z:\1\data\S131120\S34121.D  
Date Acquired: 20 Nov 2013 7:05 pm  
Sample Name: mc26103-1  
Misc Info: op35834,mss1523,0.0011,,10,10



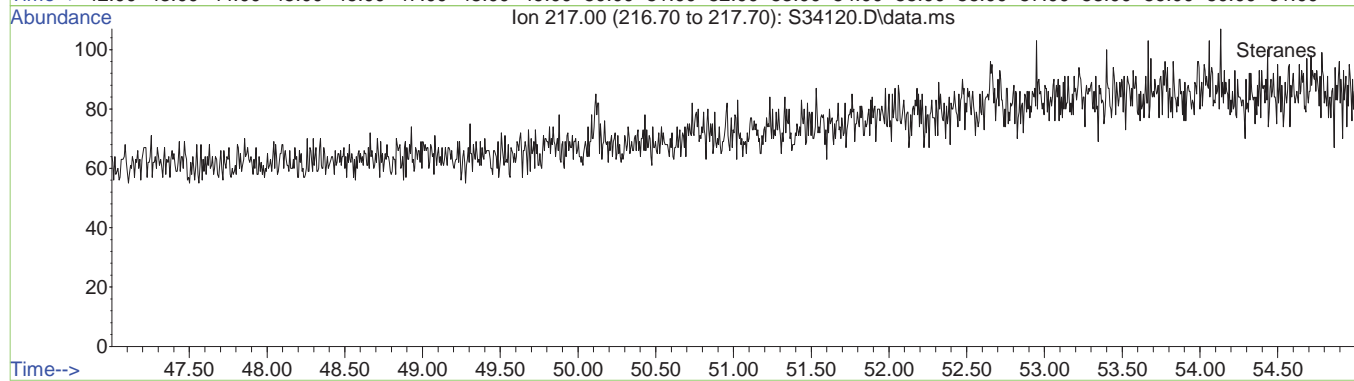
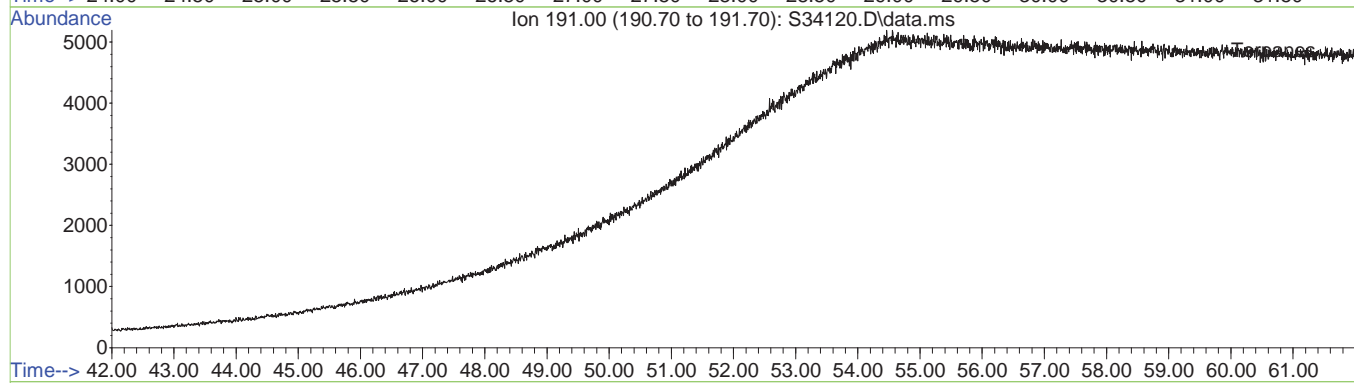
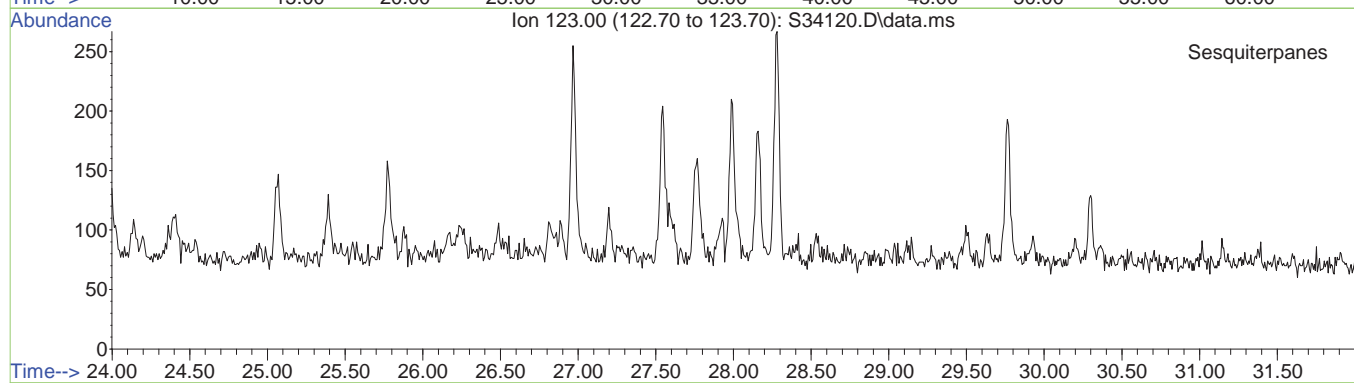
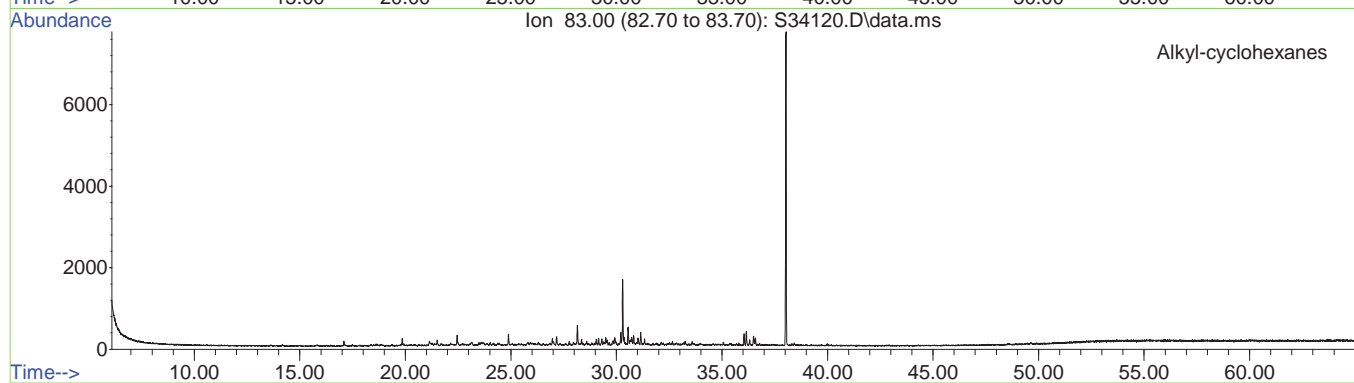
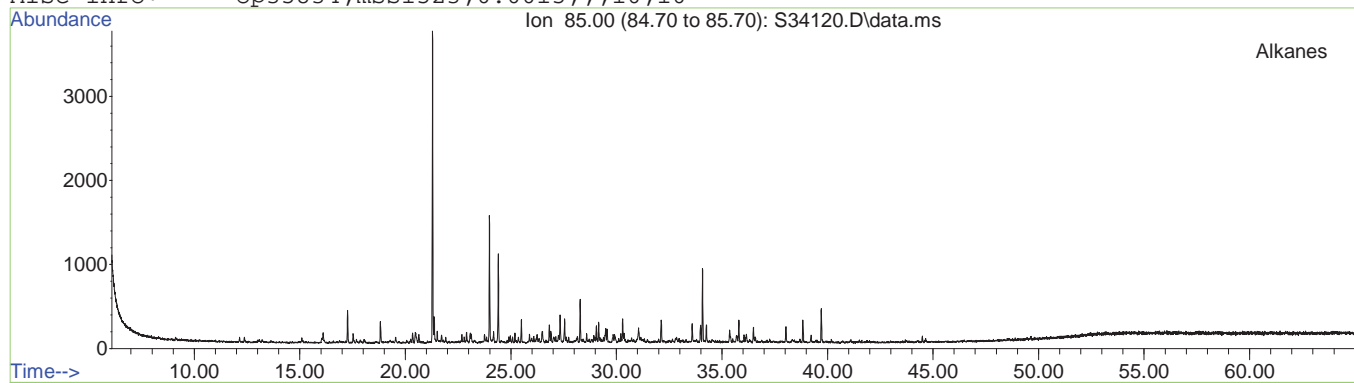
ACCUTEST

GC/MS TOTAL ION CHROMATOGRAM

File: Z:\data\S131120\S34121.D  
Date Acquired: 20 Nov 2013 7:05 pm  
Method File: SAPAHSIM-MTBE.M  
Sample Name: mc26103-1  
Misc Info: op35834,mss1523,0.0011,,10,10

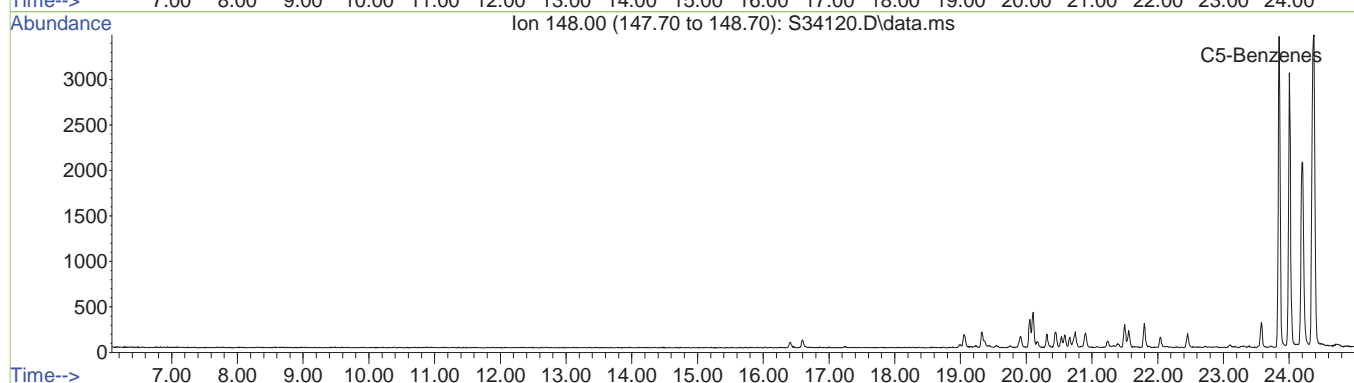
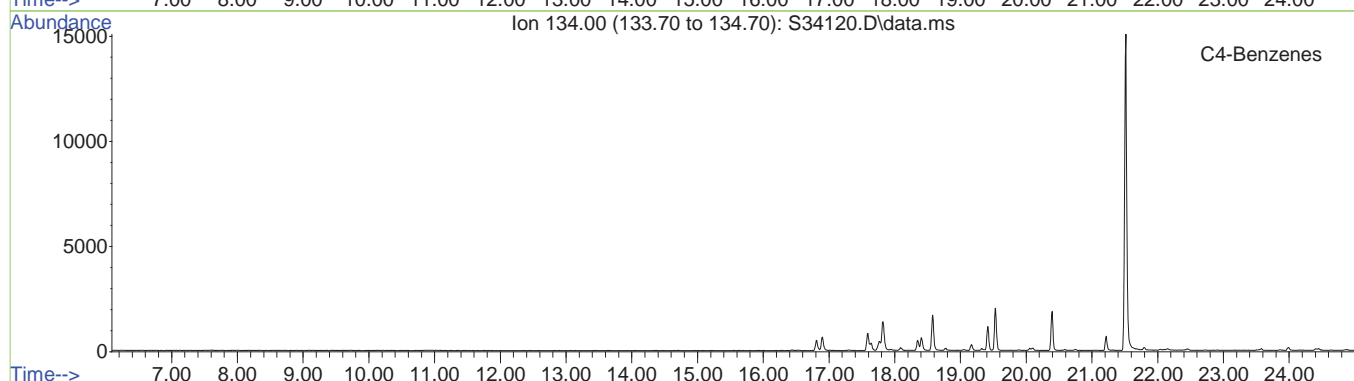
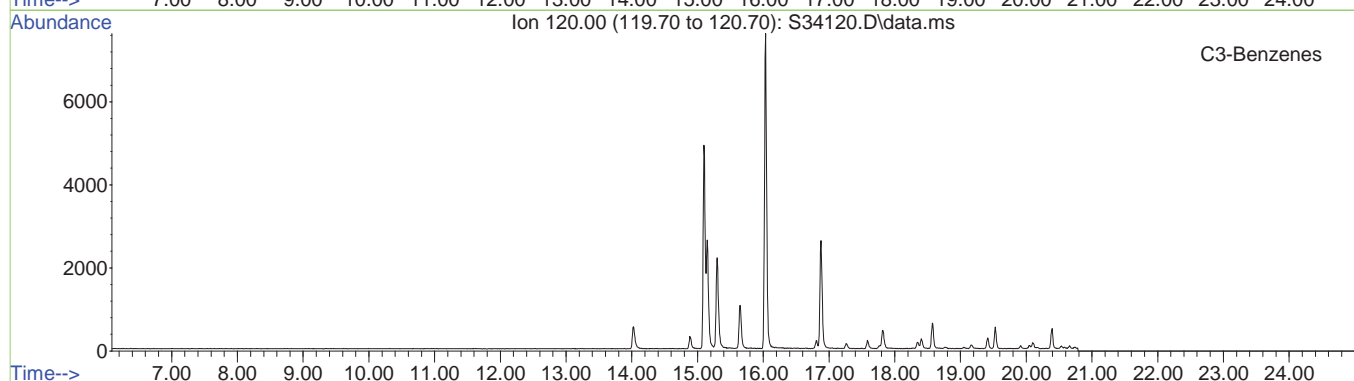
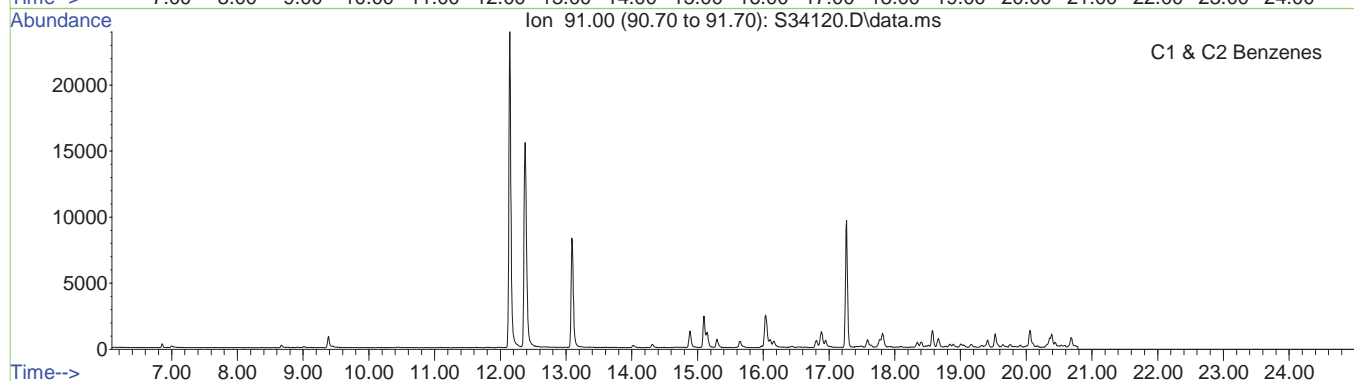
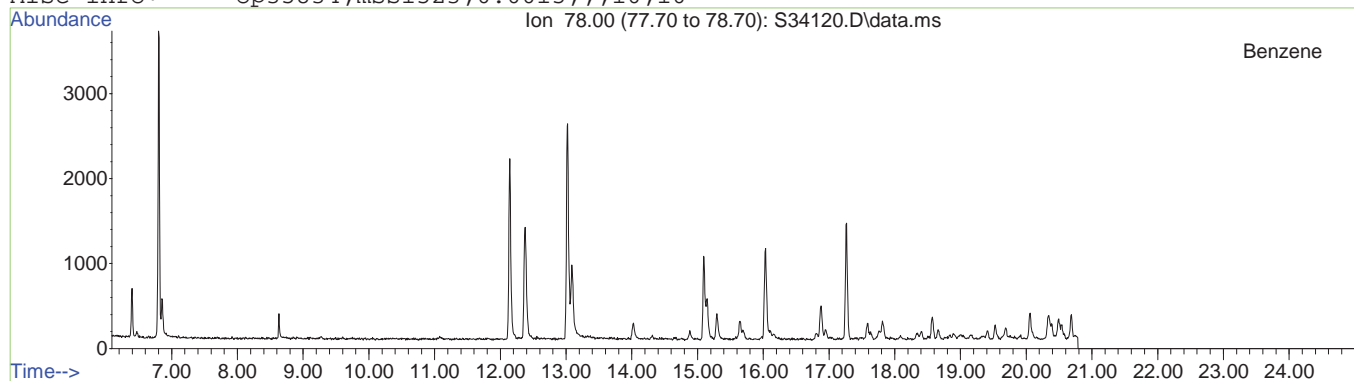


File: Z:\1\data\S131120\S34120.D  
Date Acquired: 20 Nov 2013 5:53 pm  
Sample Name: op35834-dup1  
Misc Info: op35834,mss1523,0.0015,,,10,10

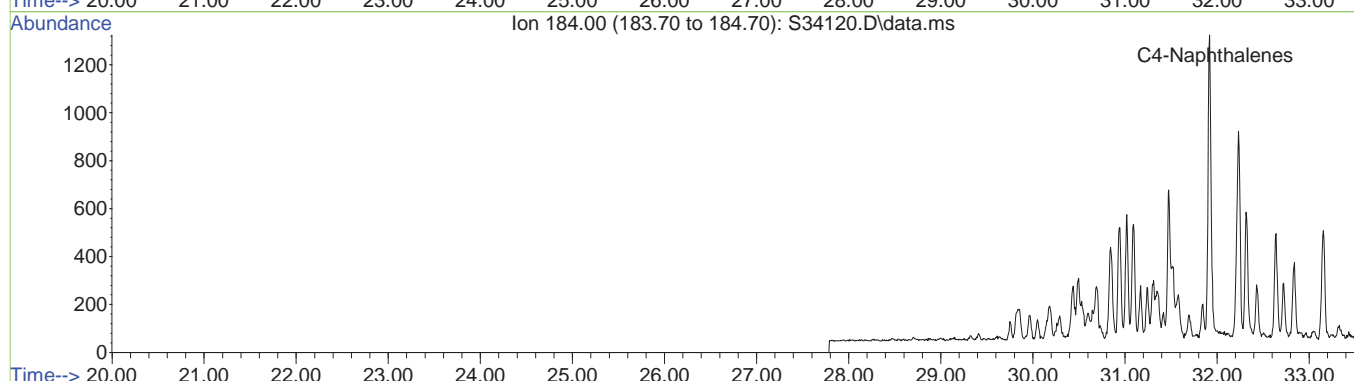
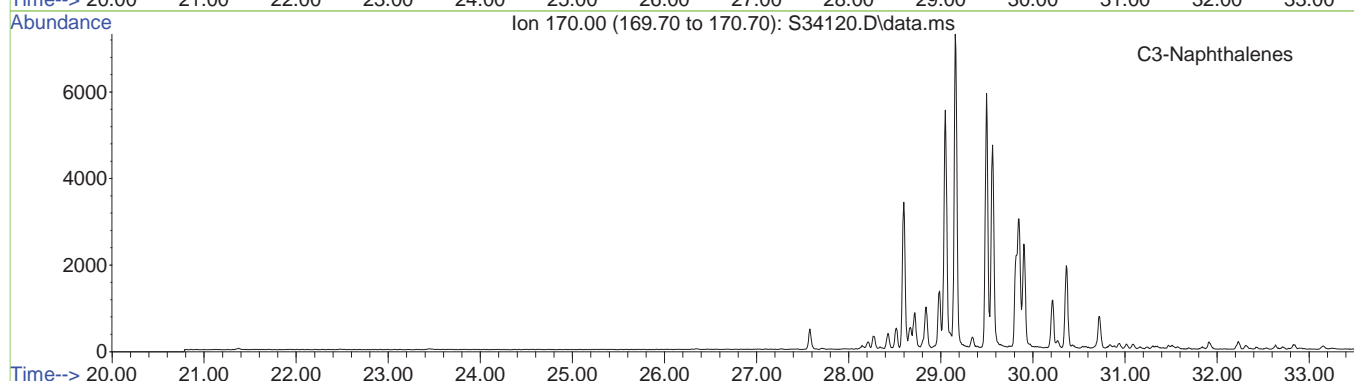
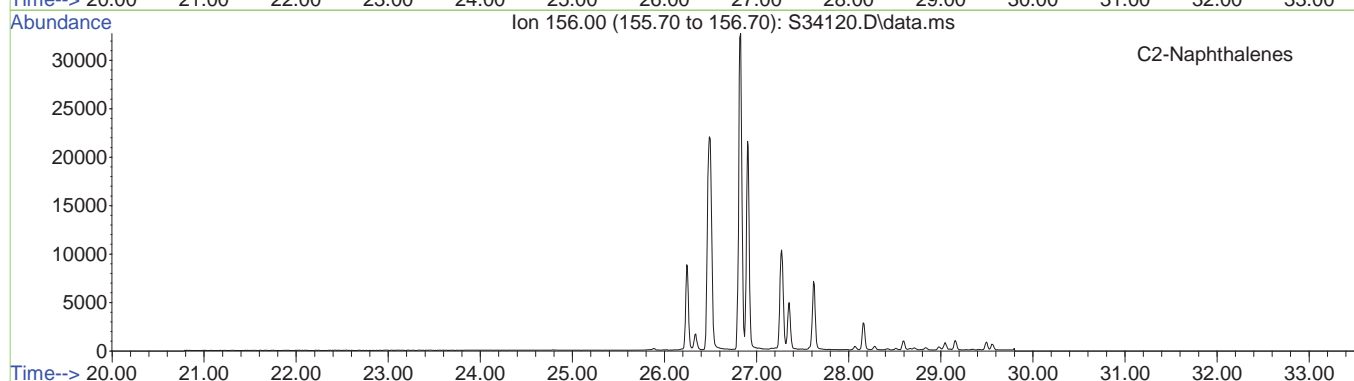
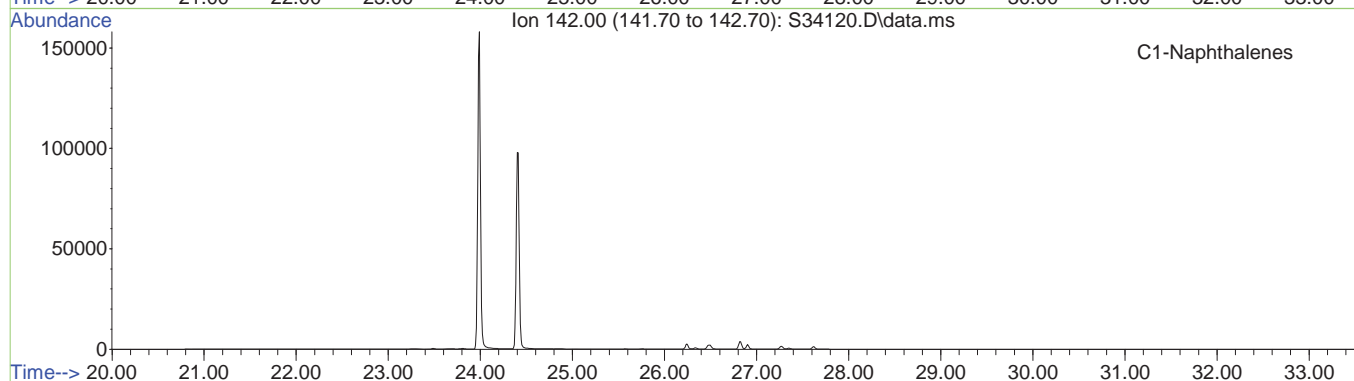
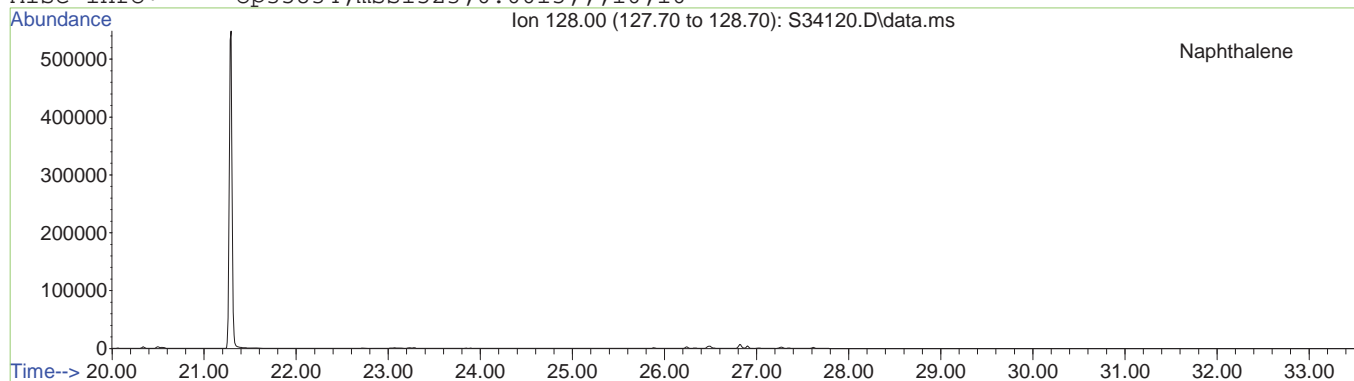




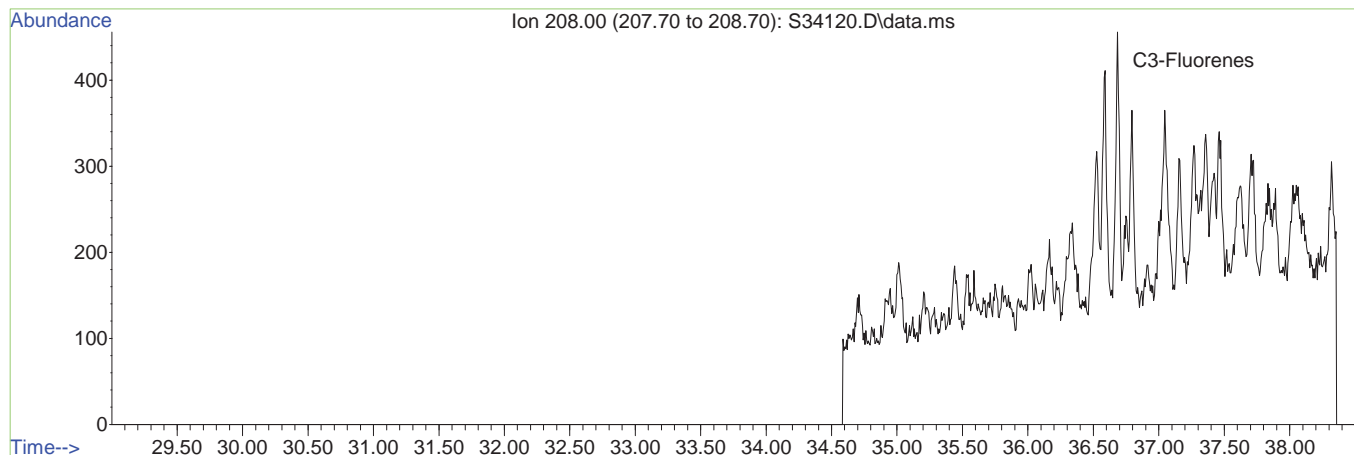
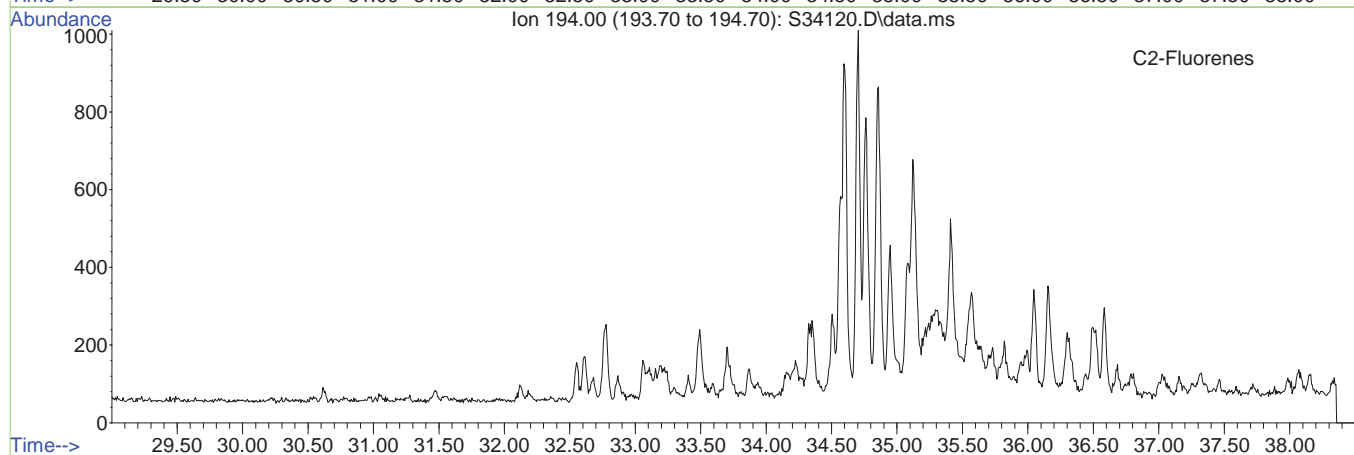
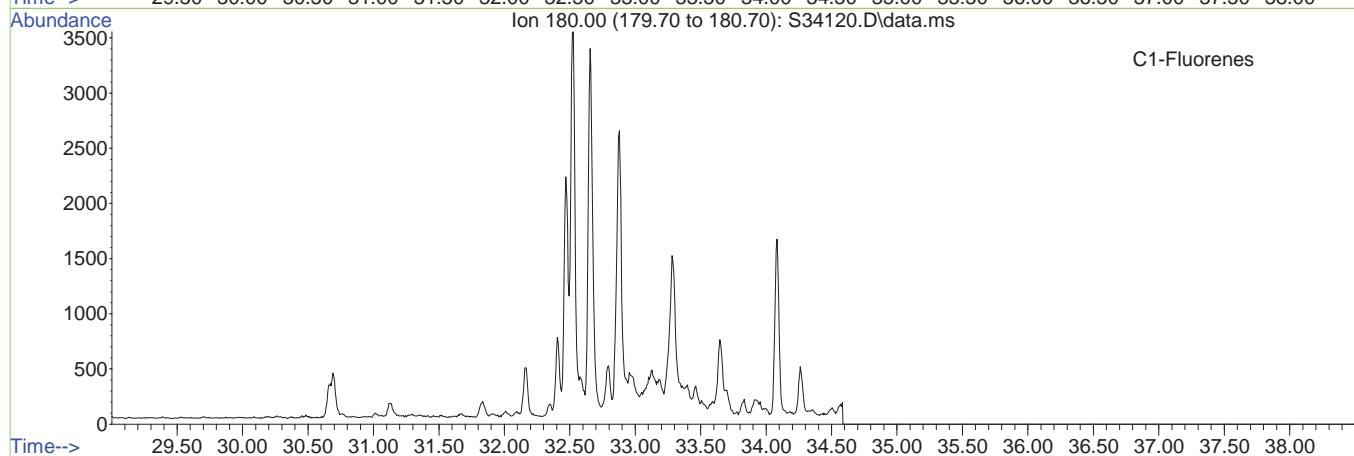
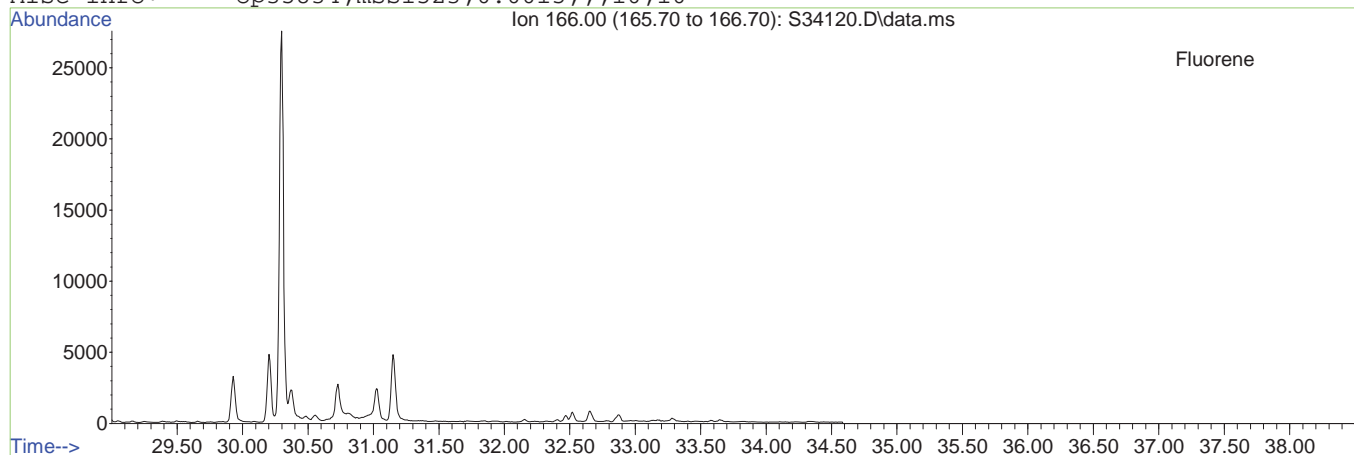
File: Z:\1\data\S131120\S34120.D  
Date Acquired: 20 Nov 2013 5:53 pm  
Sample Name: op35834-dup1  
Misc Info: op35834,mss1523,0.0015,,,10,10



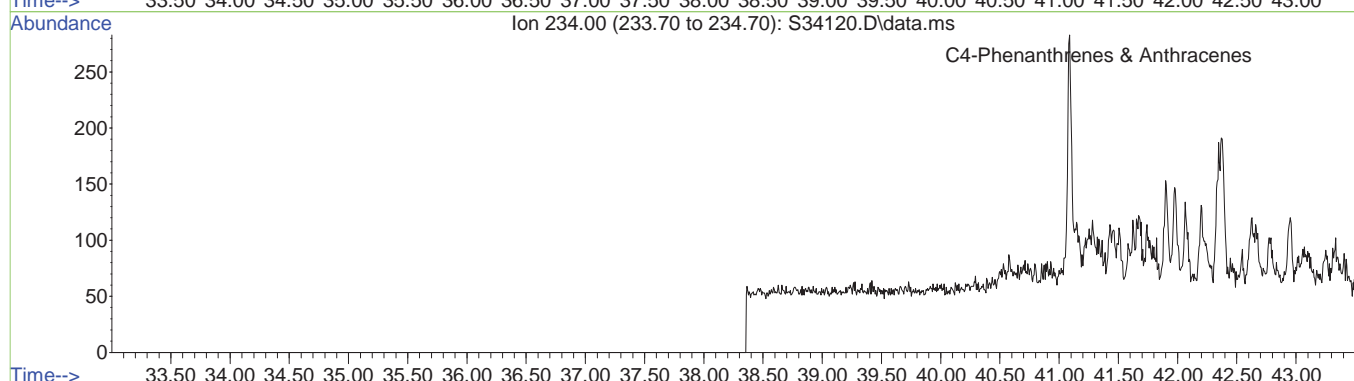
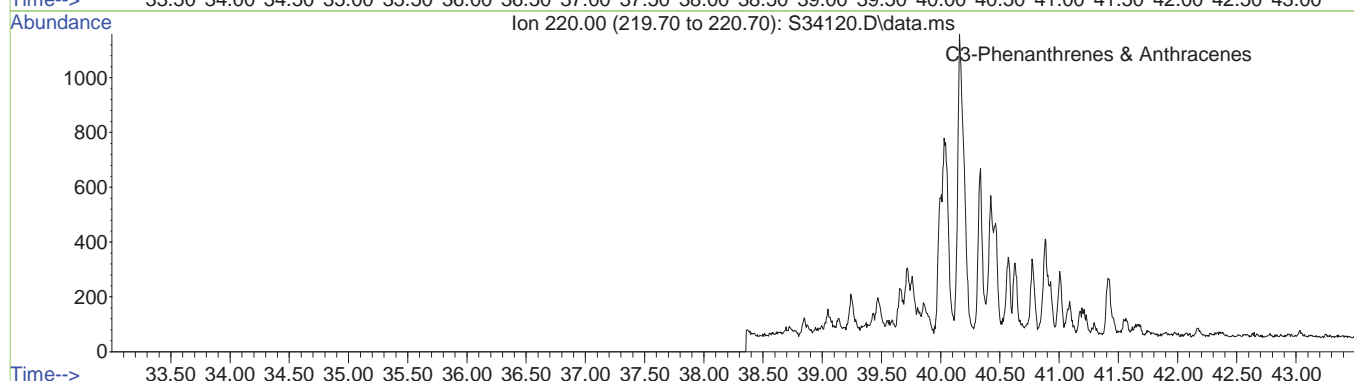
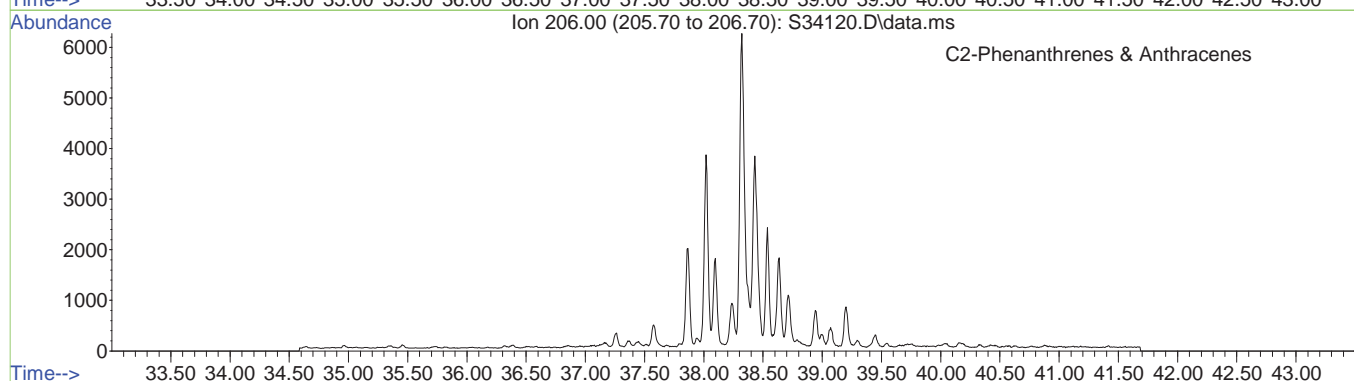
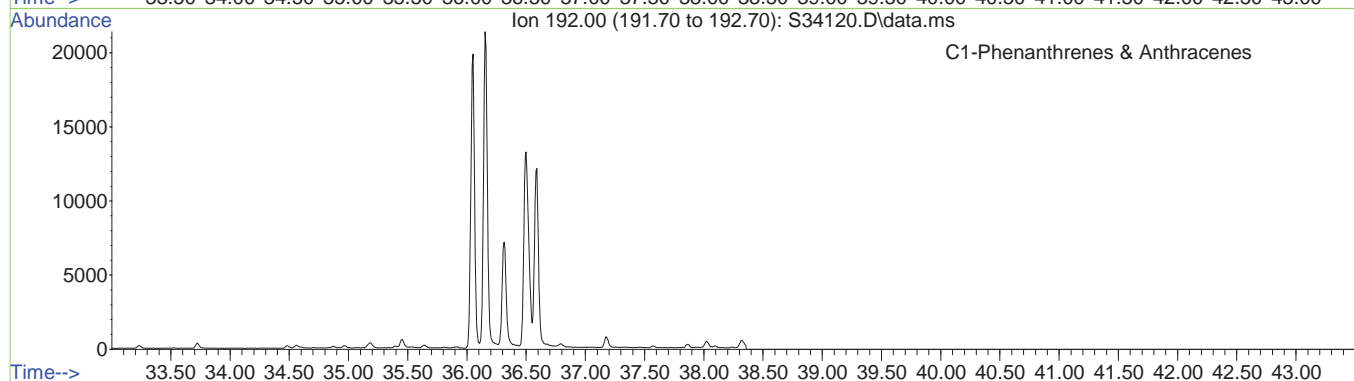
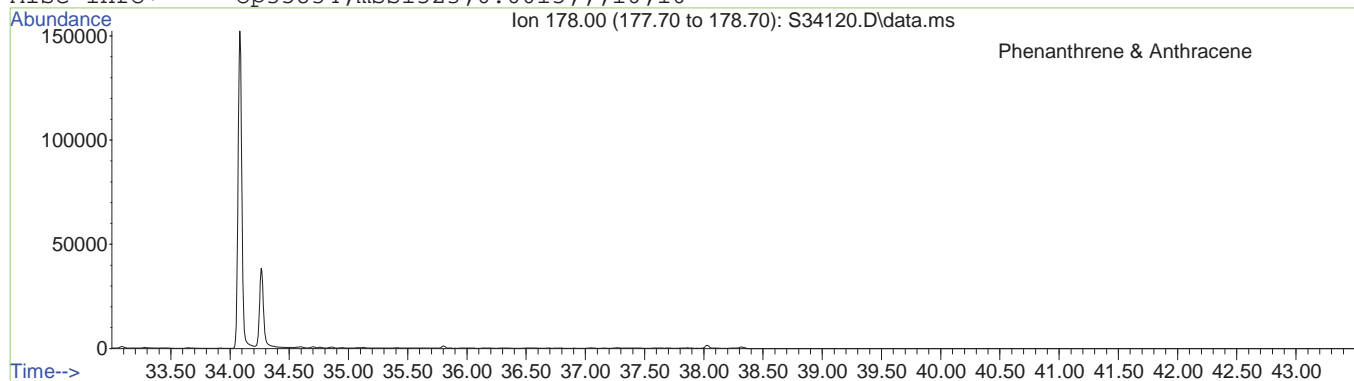
File: Z:\1\data\S131120\S34120.D  
Date Acquired: 20 Nov 2013 5:53 pm  
Sample Name: op35834-dup1  
Misc Info: op35834,mss1523,0.0015,,,10,10



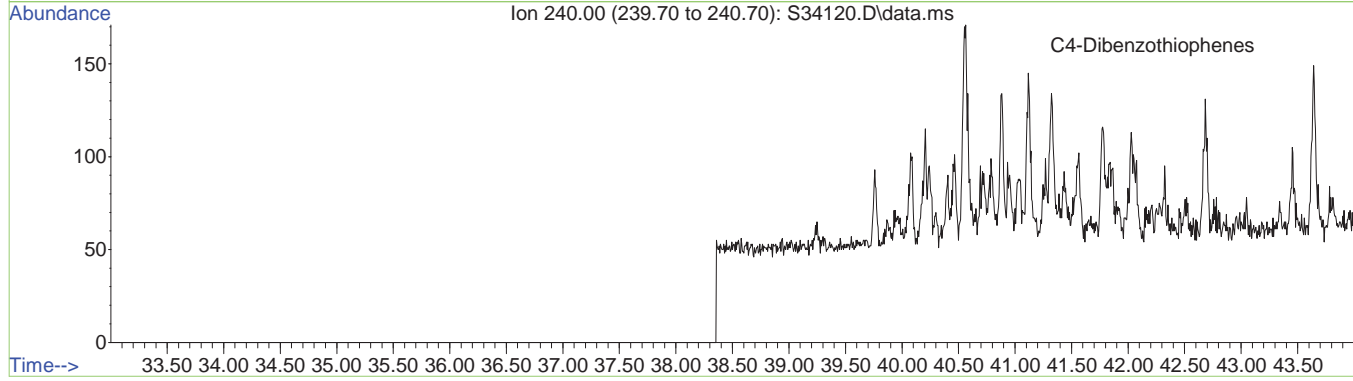
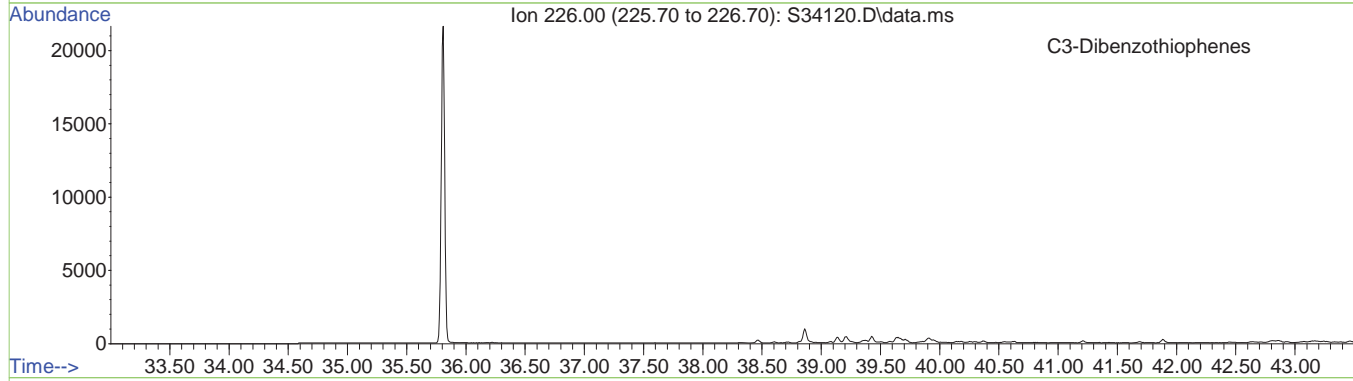
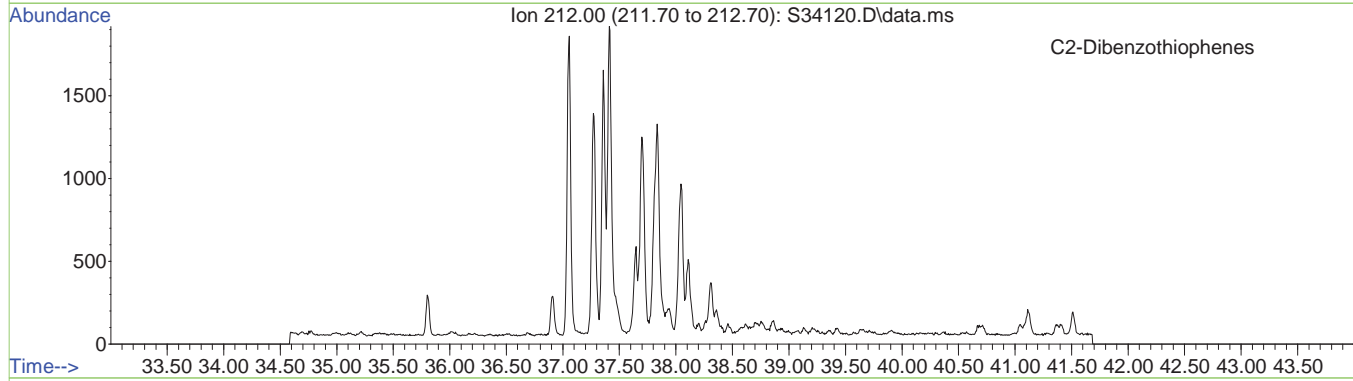
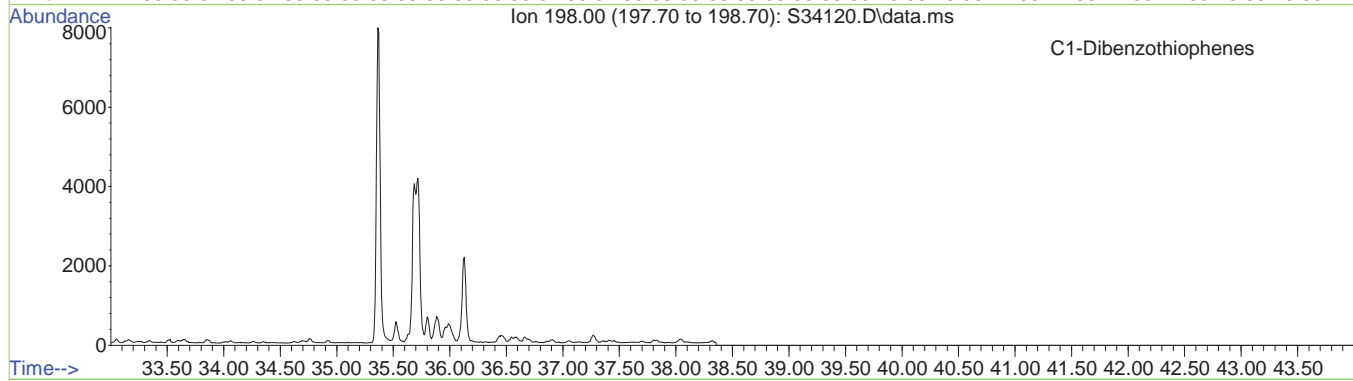
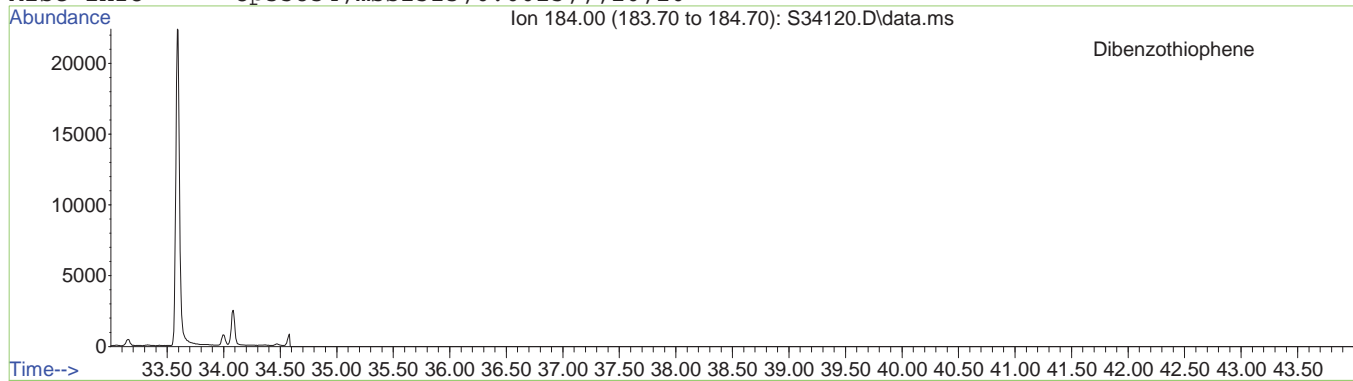
File: Z:\1\data\S131120\S34120.D  
 Date Acquired: 20 Nov 2013 5:53 pm  
 Method File: SAPAHSIM-MTBE.M  
 Sample Name: op35834-dup1  
 Misc Info: op35834,mss1523,0.0015,,10,10



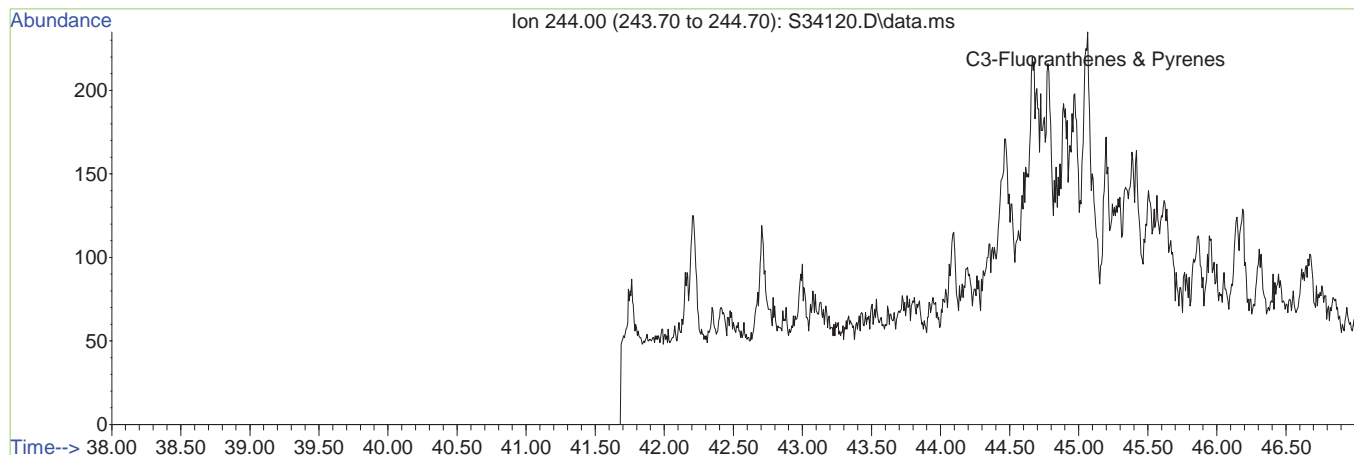
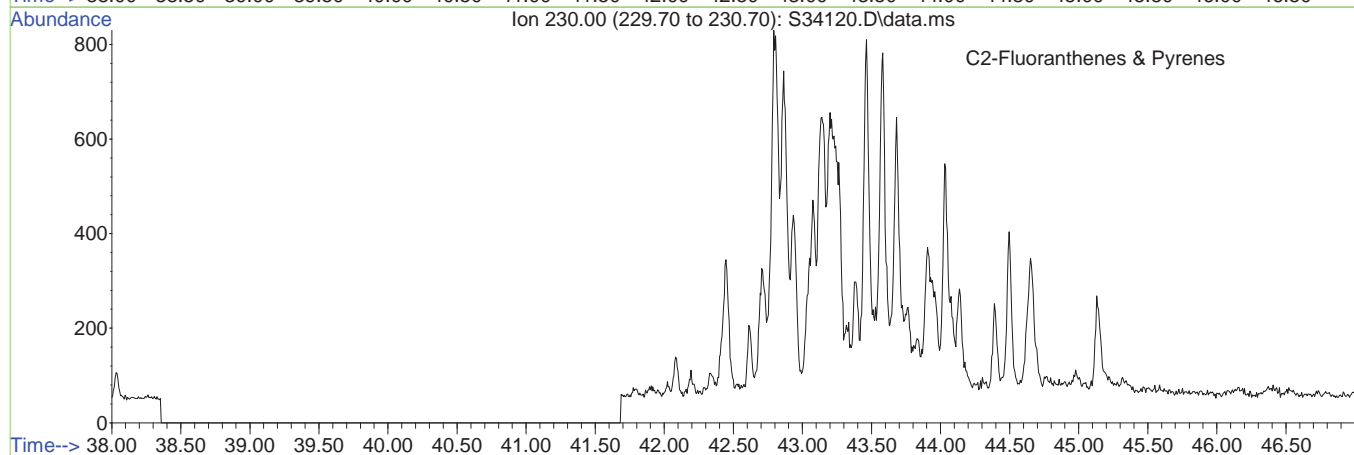
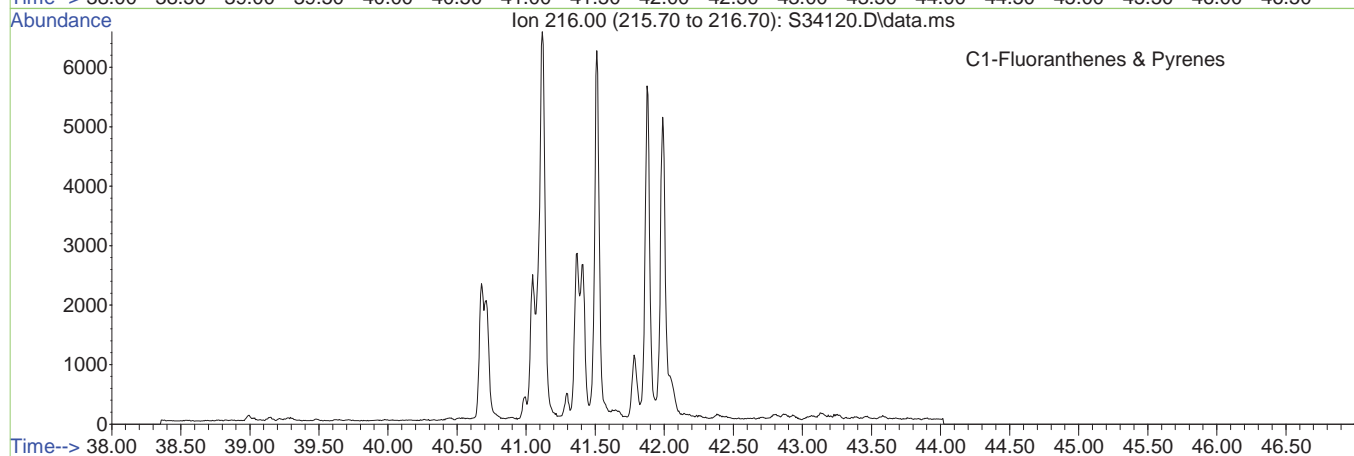
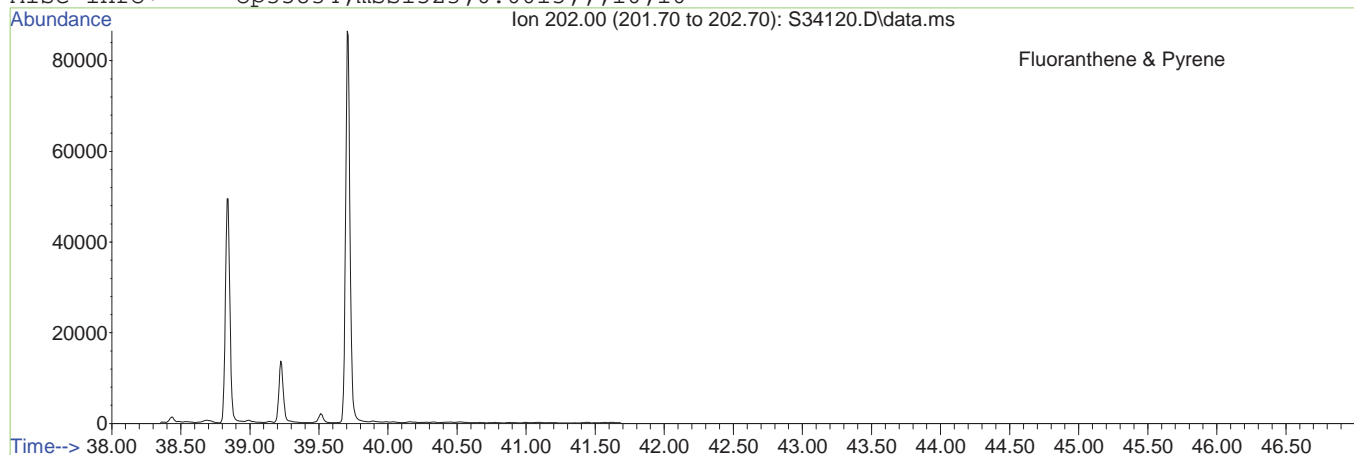
File: Z:\1\data\S131120\S34120.D  
Date Acquired: 20 Nov 2013 5:53 pm  
Sample Name: op35834-dup1  
Misc Info: op35834,mss1523,0.0015,,10,10



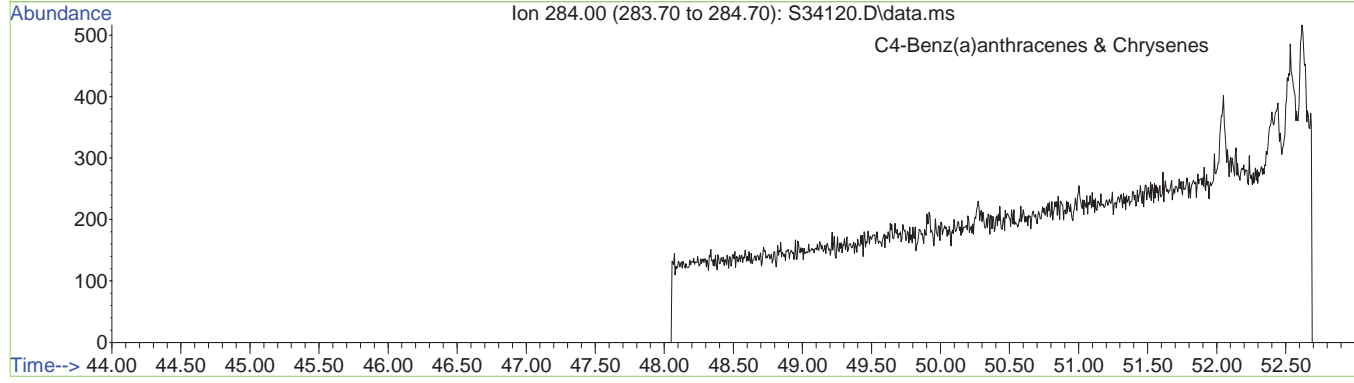
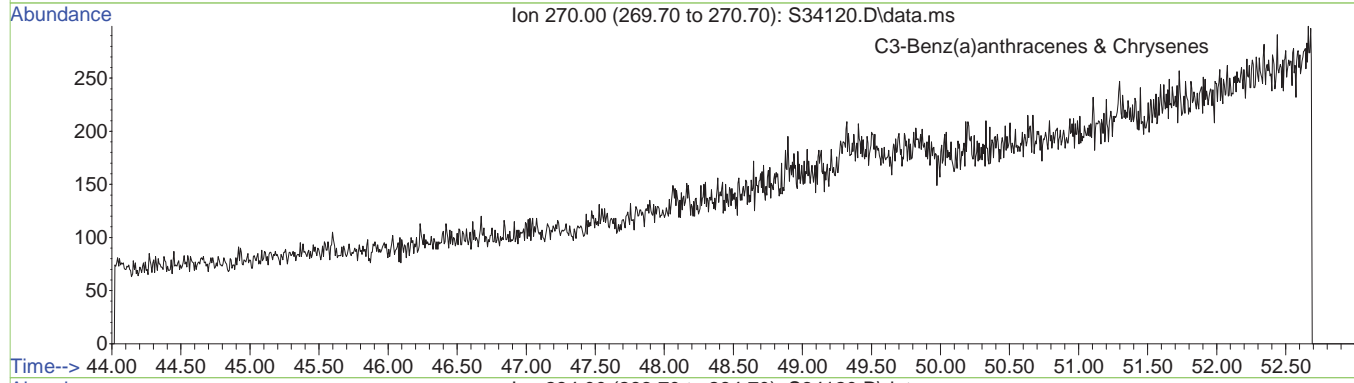
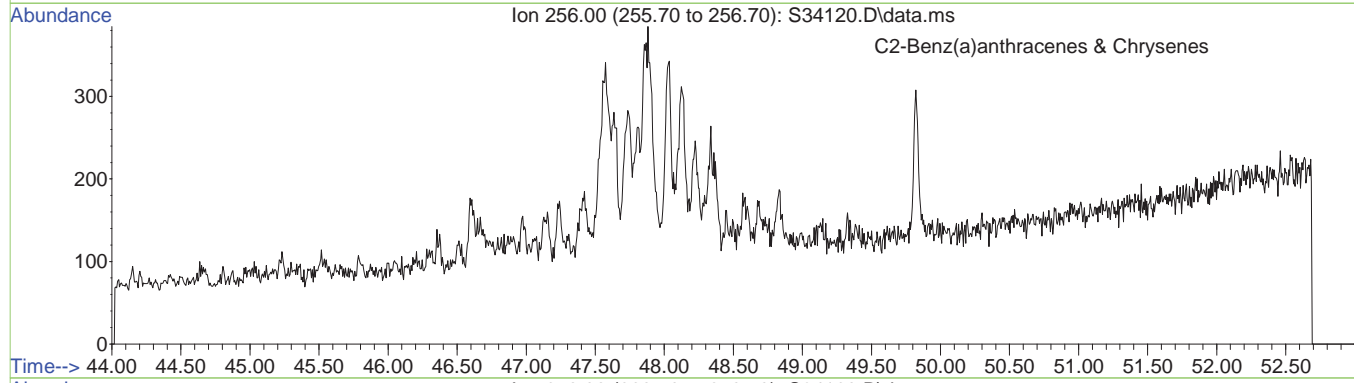
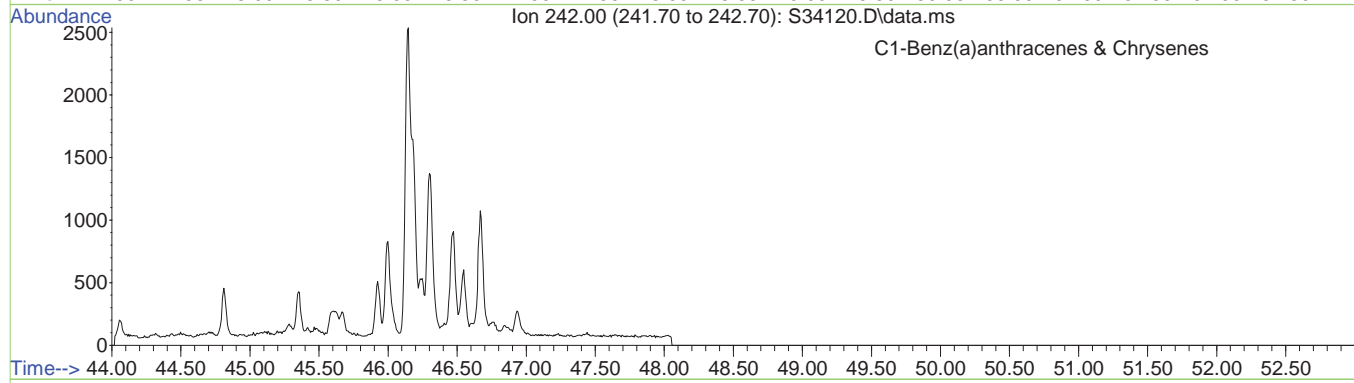
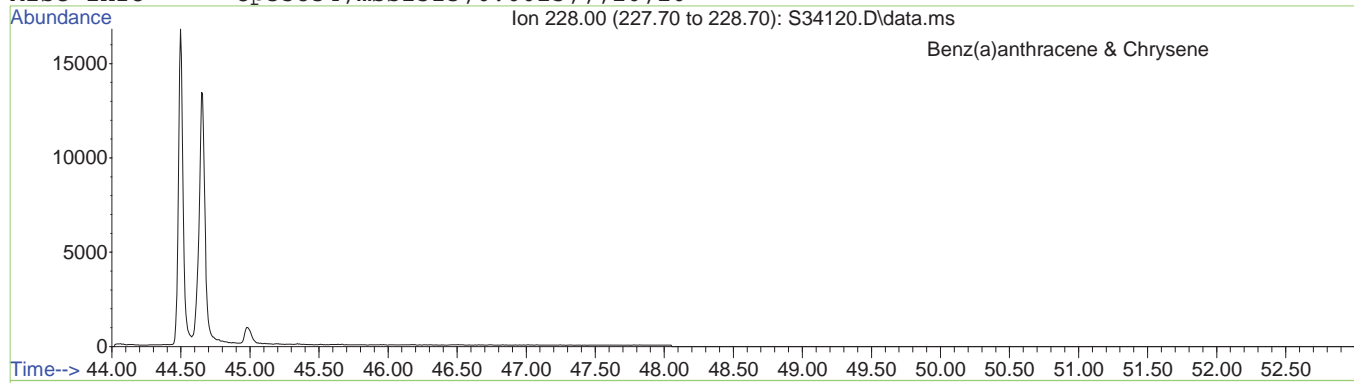
File: Z:\1\data\S131120\S34120.D  
Date Acquired: 20 Nov 2013 5:53 pm  
Sample Name: op35834-dup1  
Misc Info: op35834,mss1523,0.0015,,10,10



File: Z:\1\data\S131120\S34120.D  
 Date Acquired: 20 Nov 2013 5:53 pm  
 Method File: SAPAHSIM-MTBE.M  
 Sample Name: op35834-dup1  
 Misc Info: op35834,mss1523,0.0015,,,10,10



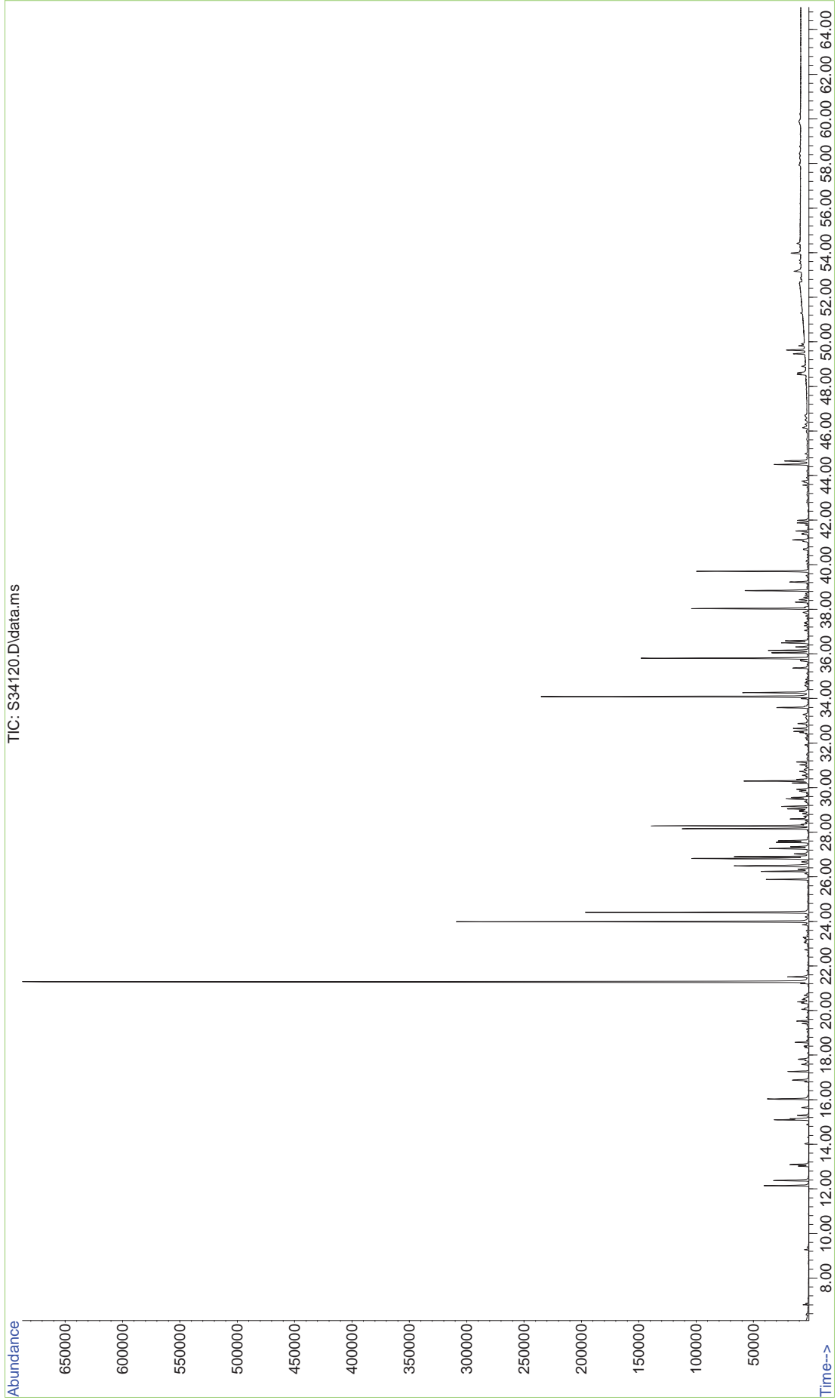
File: Z:\1\data\S131120\S34120.D  
 Date Acquired: 20 Nov 2013 5:53 pm  
 Sample Name: op35834-dup1  
 Misc Info: op35834,mss1523,0.0015,,10,10



ACCUTEST

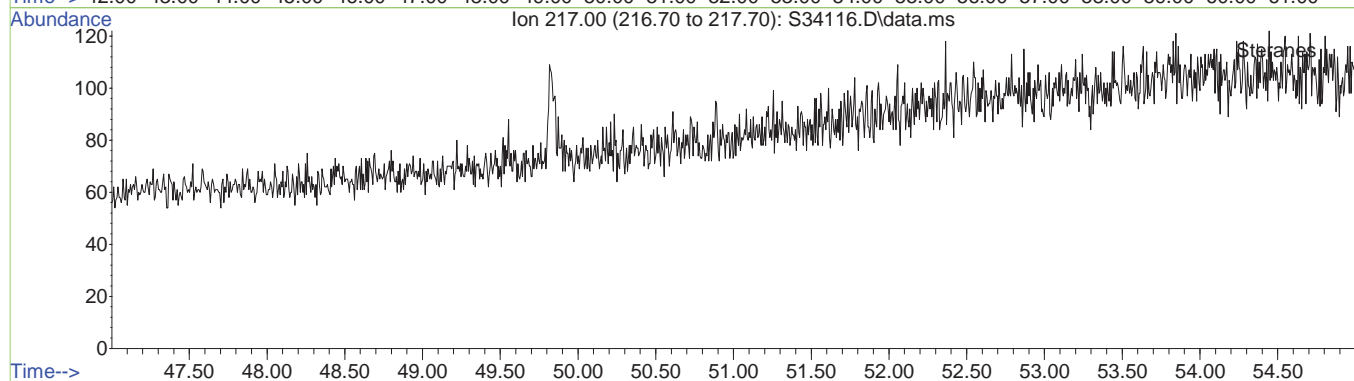
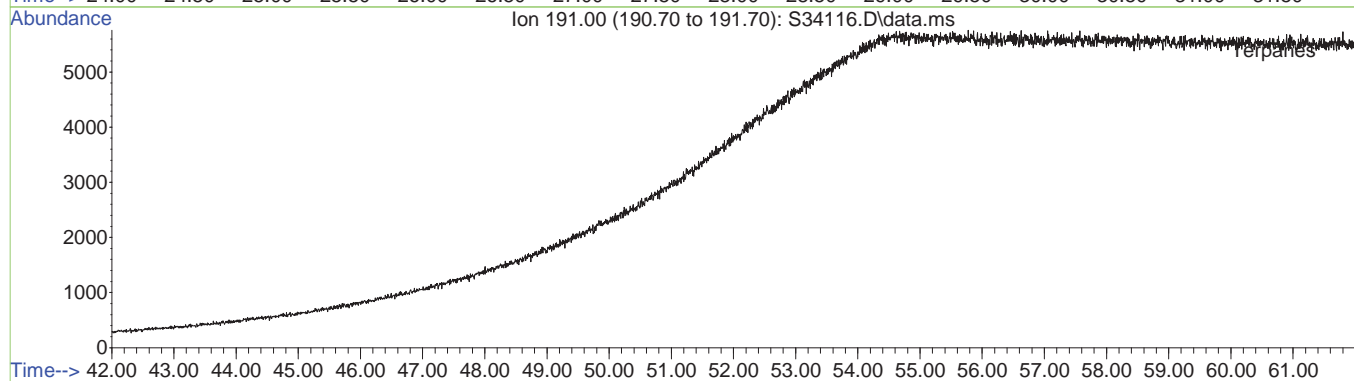
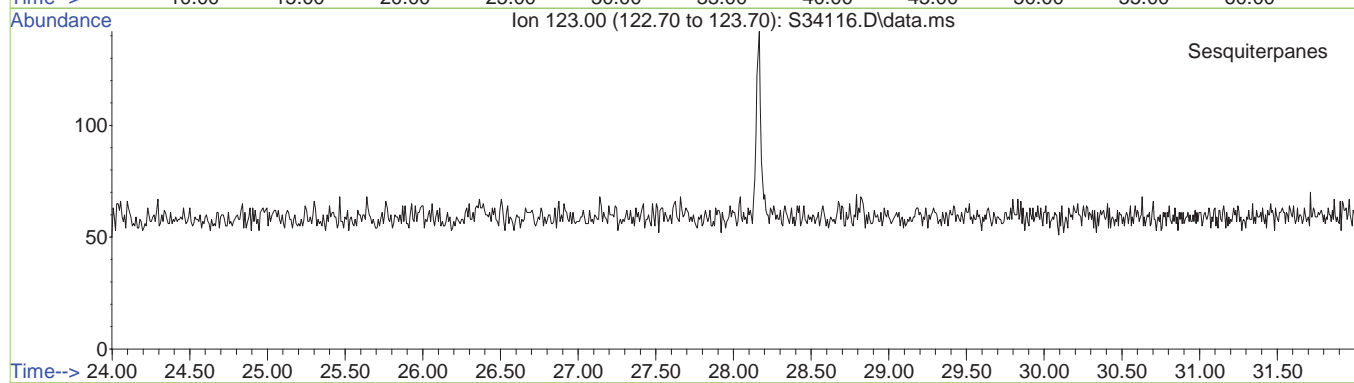
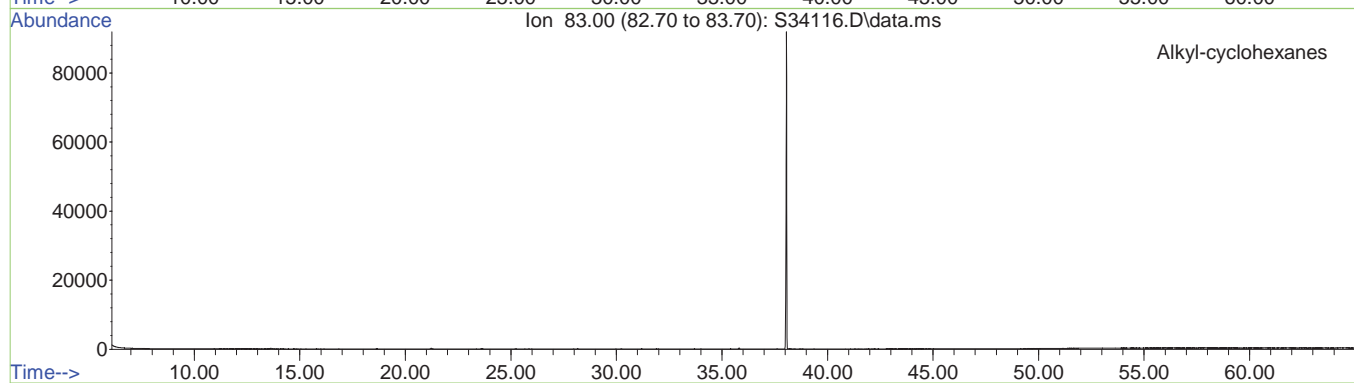
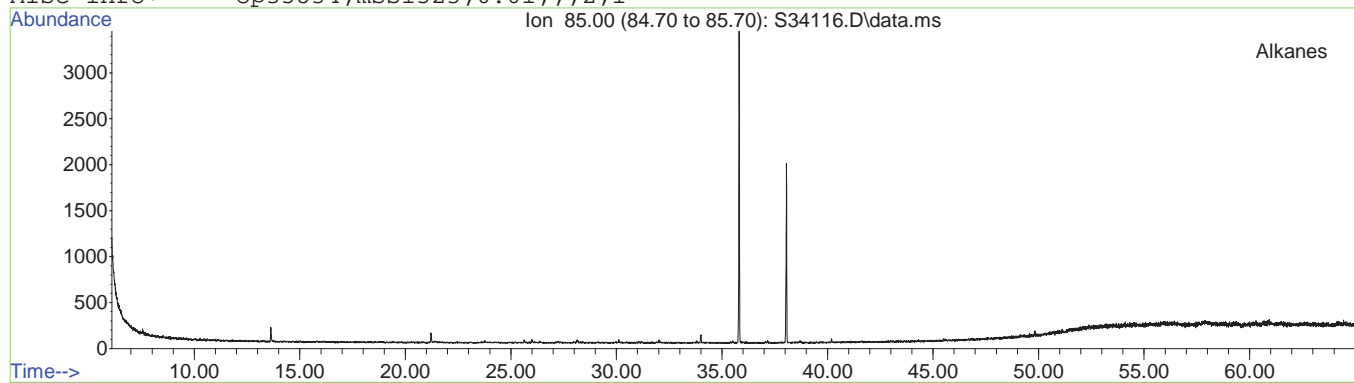
GC/MS TOTAL ION CHROMATOGRAM

File: Z:\data\S131120\S34120.D  
Date Acquired: 20 Nov 2013 5:53 pm  
Method File: SAPAHSIM-MTBE.M  
Sample Name: op35834-dup1  
Misc Info: op35834,mss1523,0.0015,,10,10

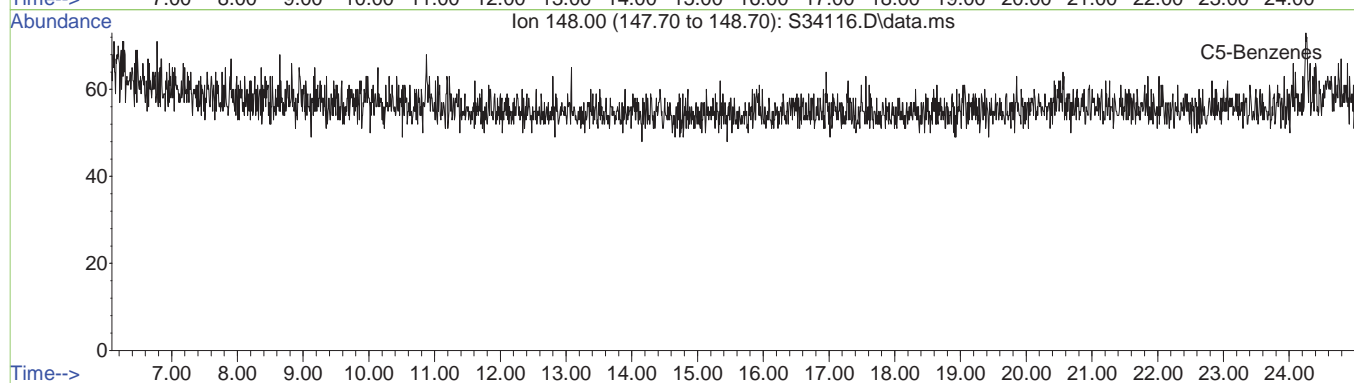
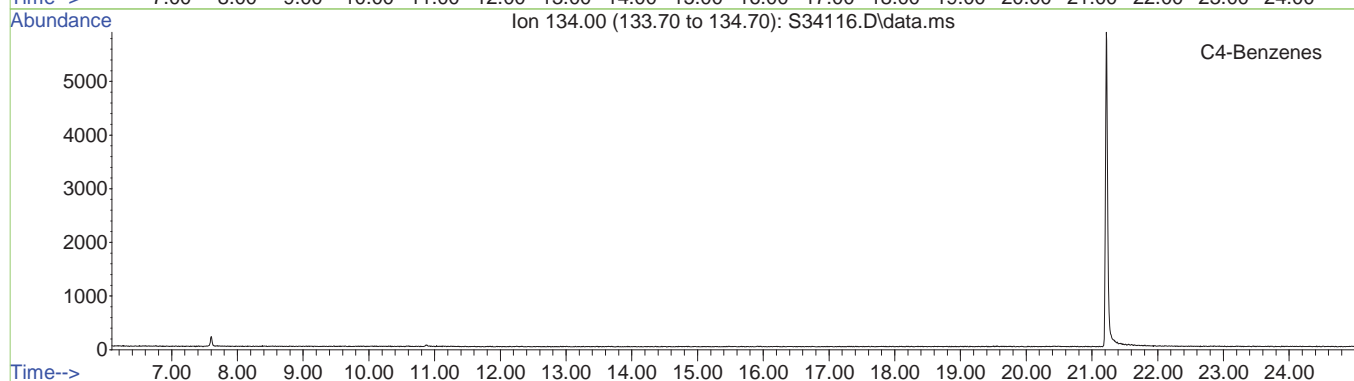
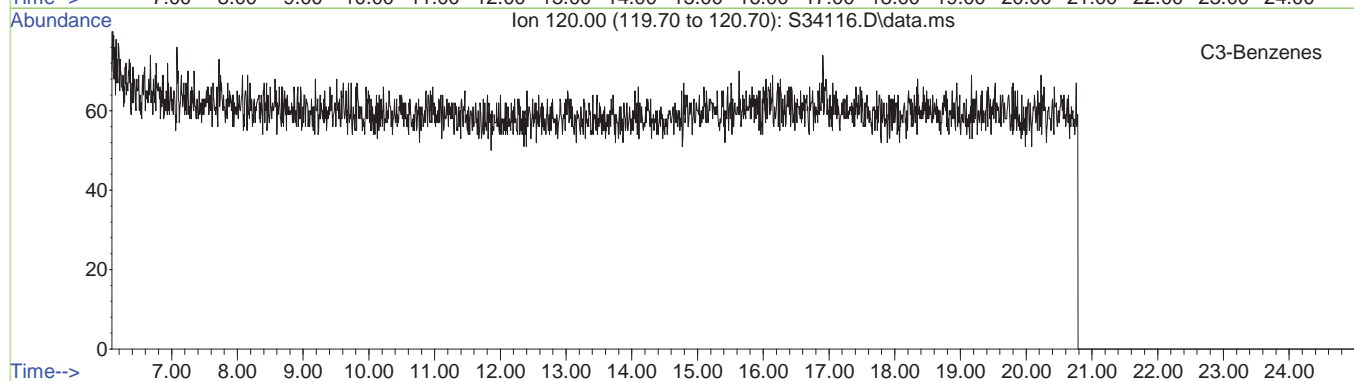
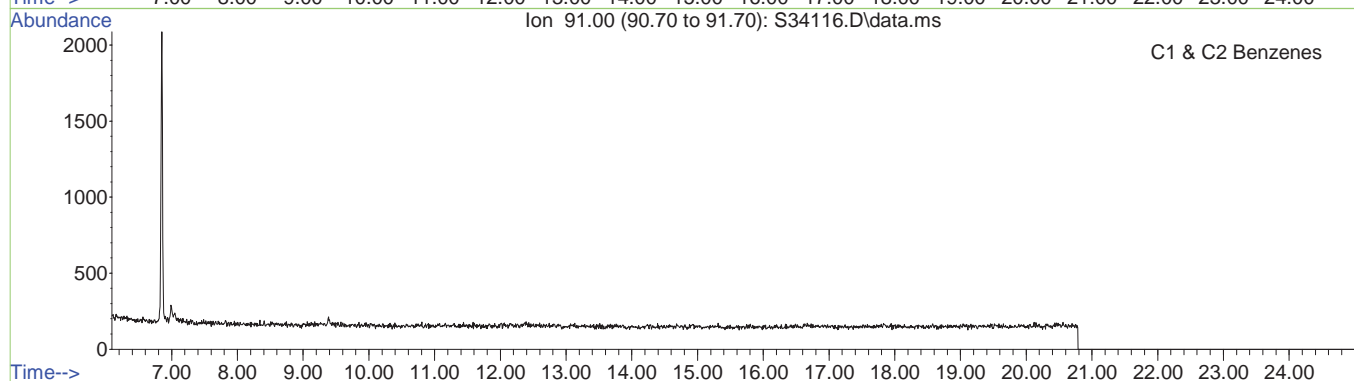
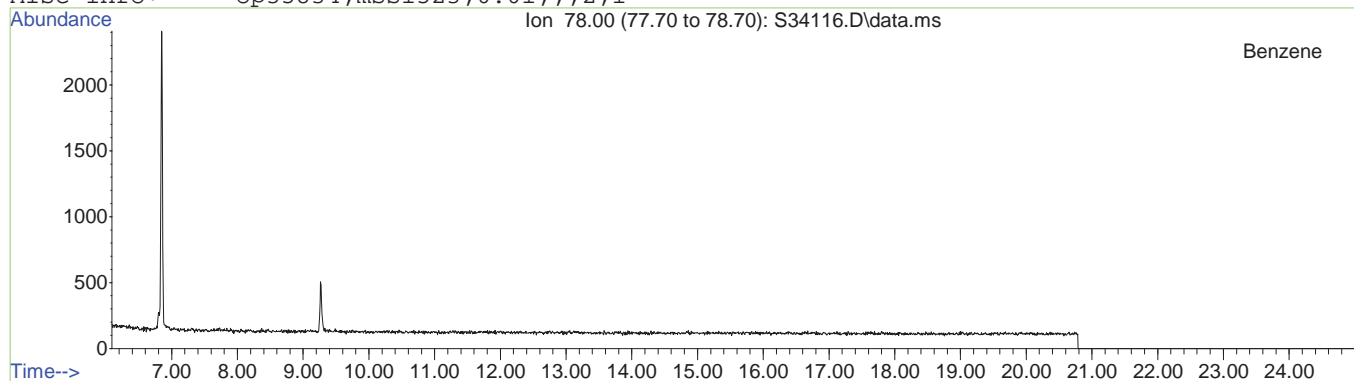




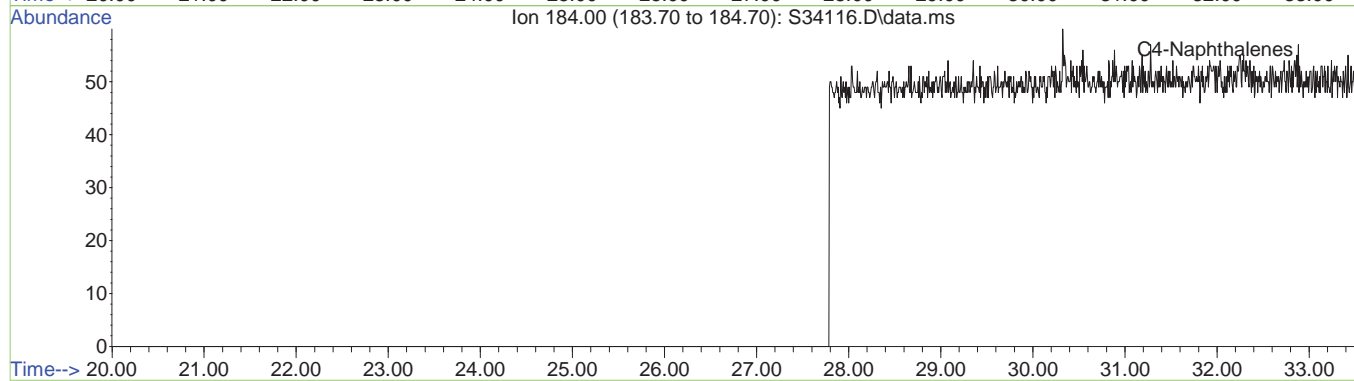
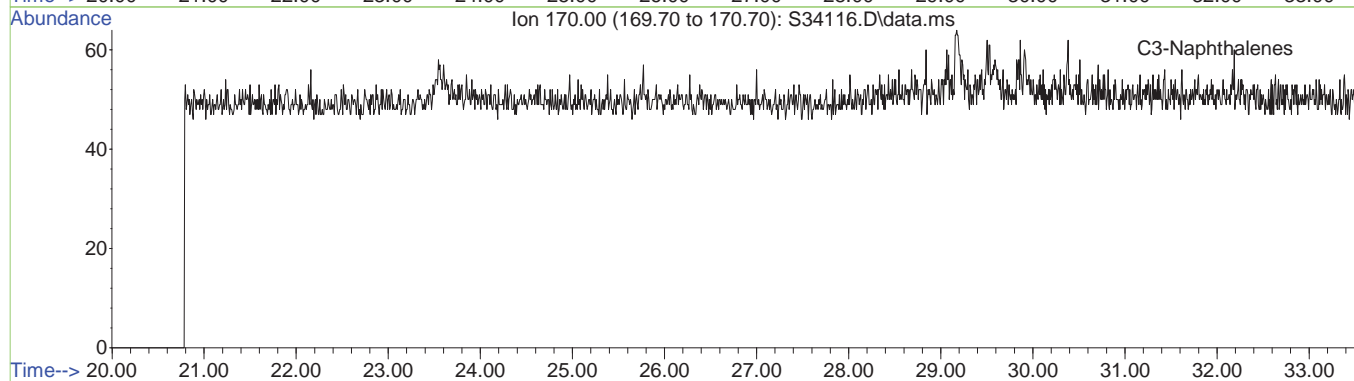
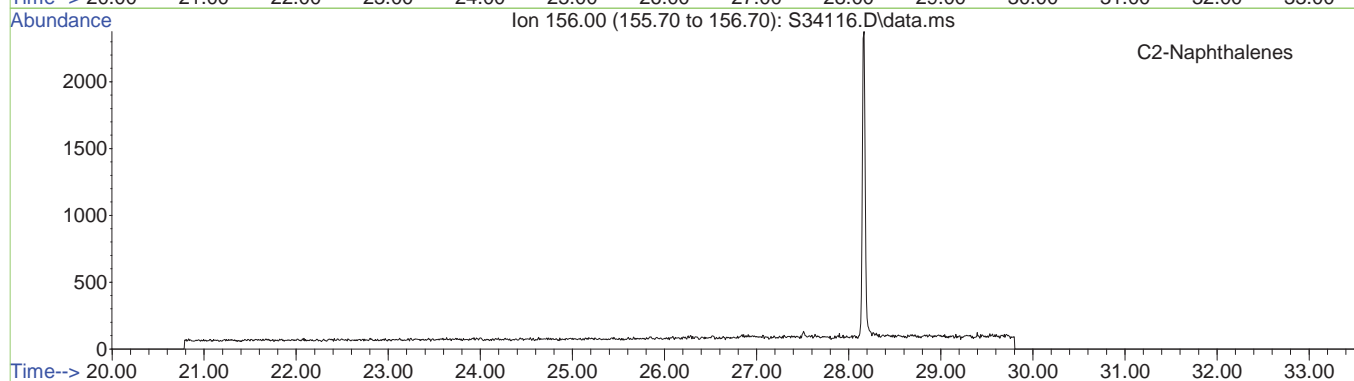
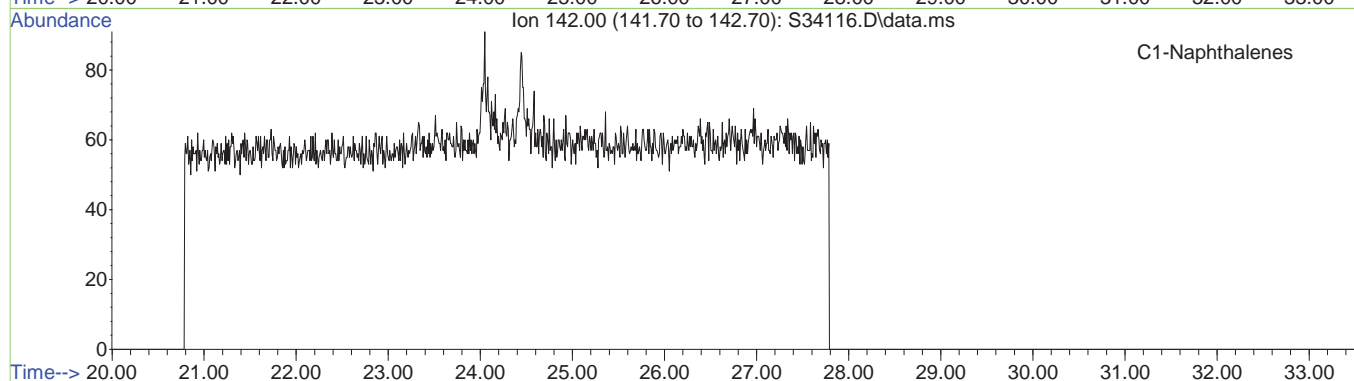
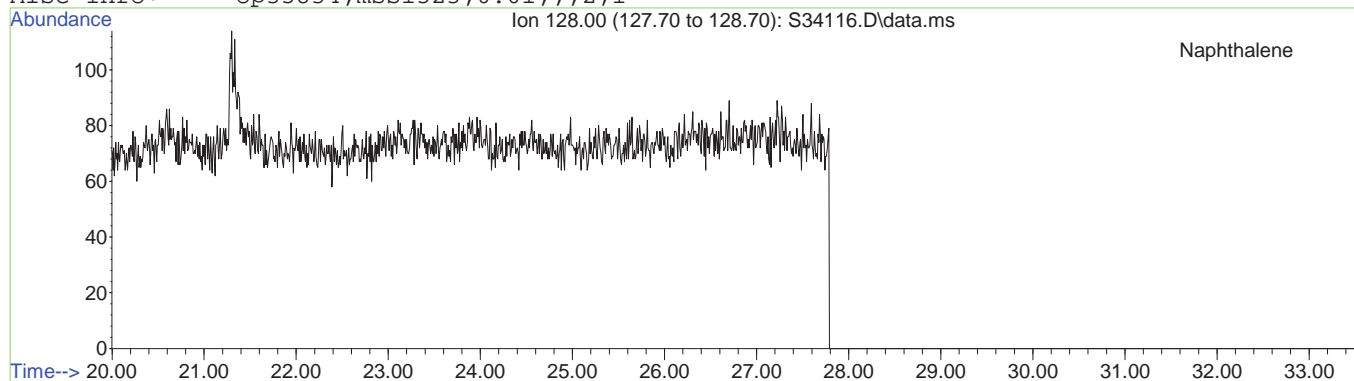
File: Z:\1\data\S131120\S34116.D  
Date Acquired: 20 Nov 2013 1:04 pm  
Sample Name: op35834-mb  
Misc Info: op35834,mss1523,0.01,,,2,1



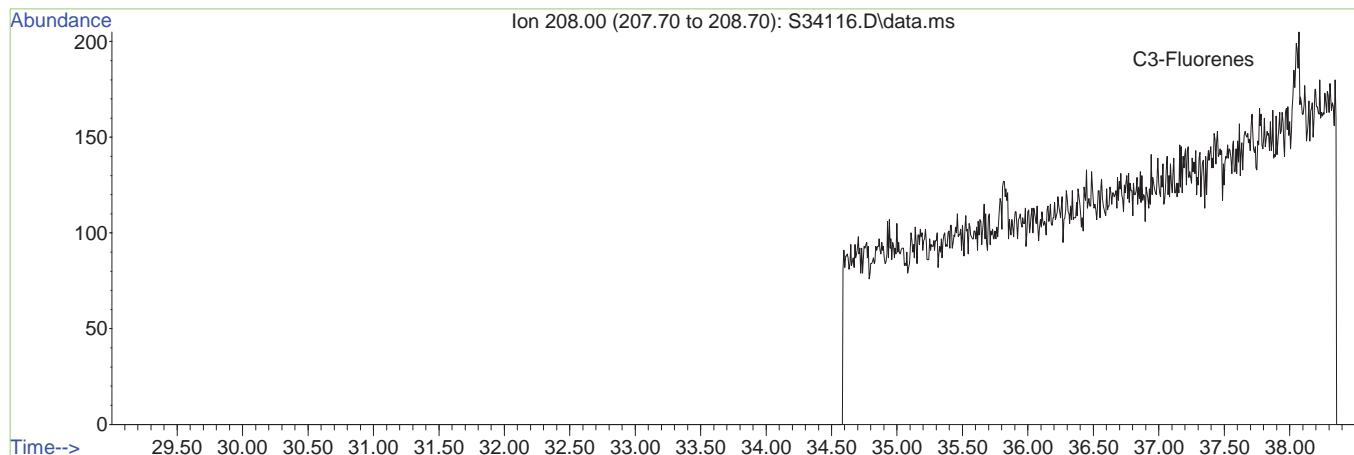
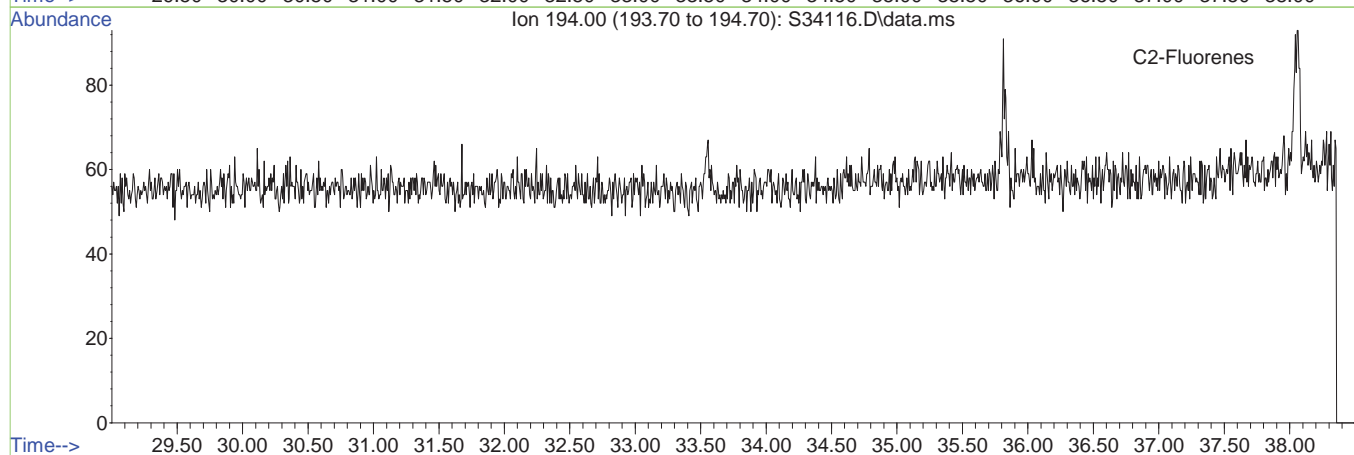
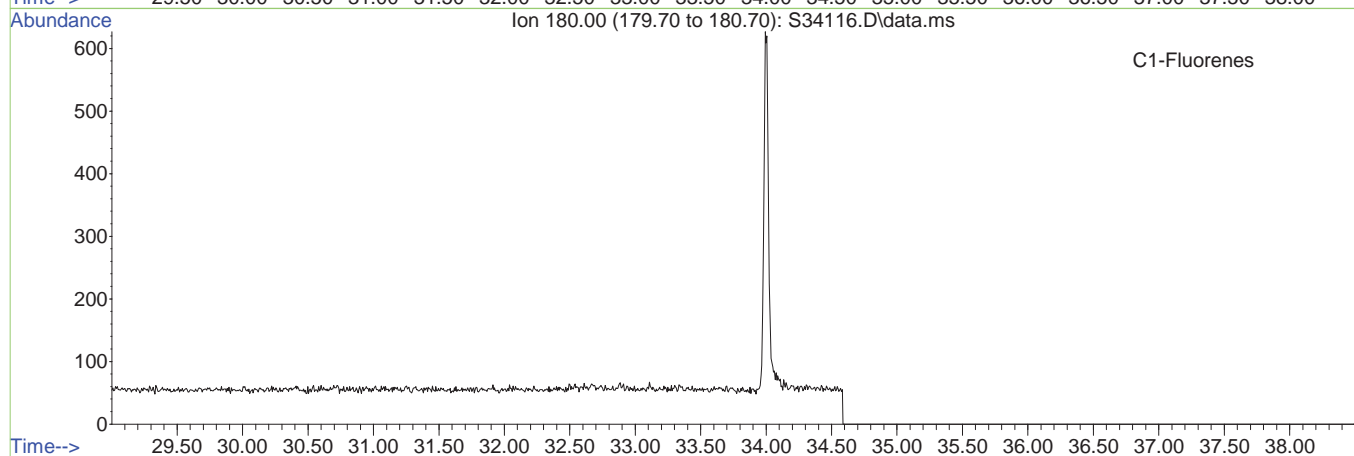
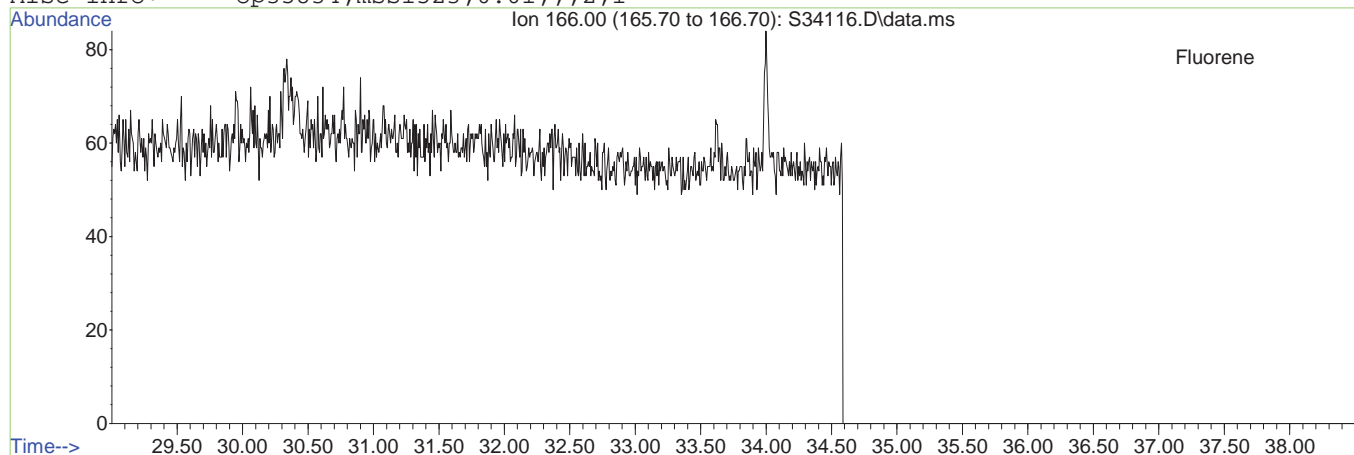
File: Z:\1\data\S131120\S34116.D  
Date Acquired: 20 Nov 2013 1:04 pm  
Sample Name: op35834-mb  
Misc Info: op35834,mss1523,0.01,,,2,1



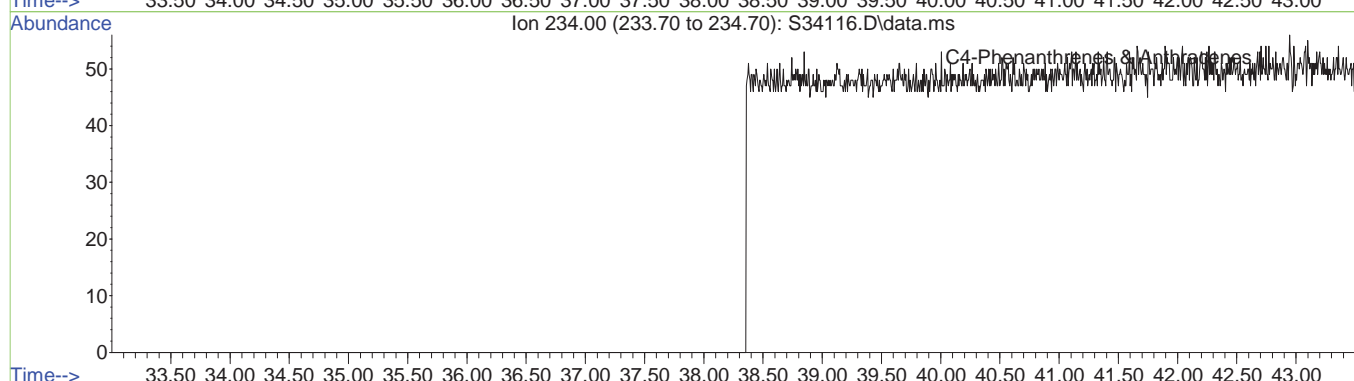
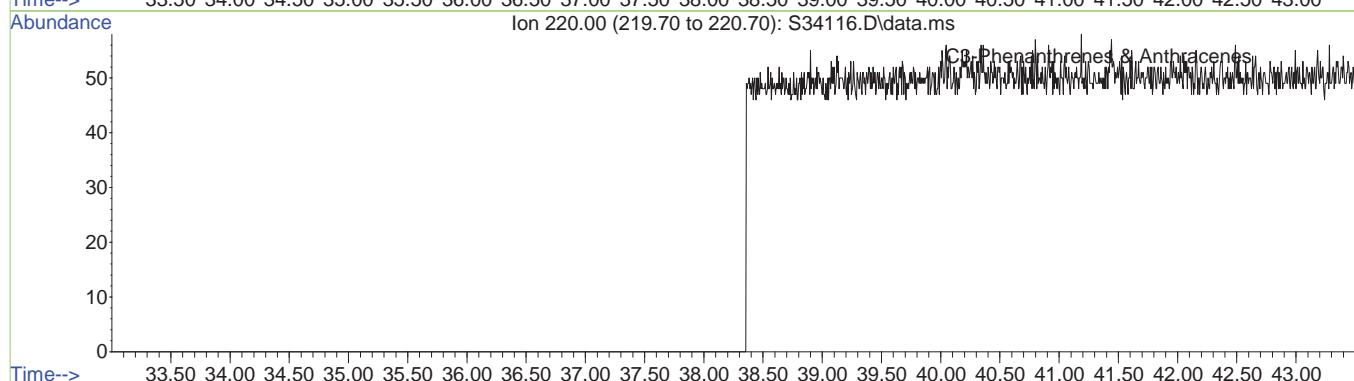
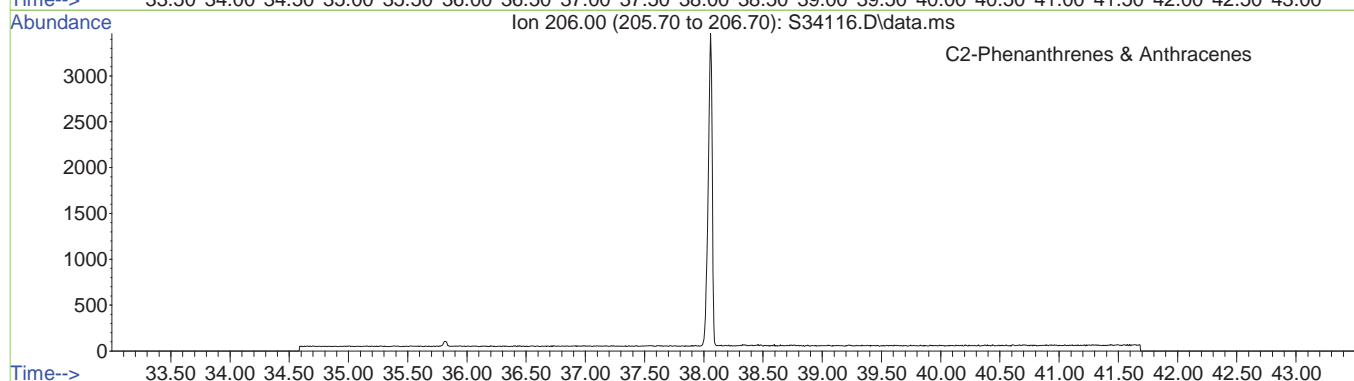
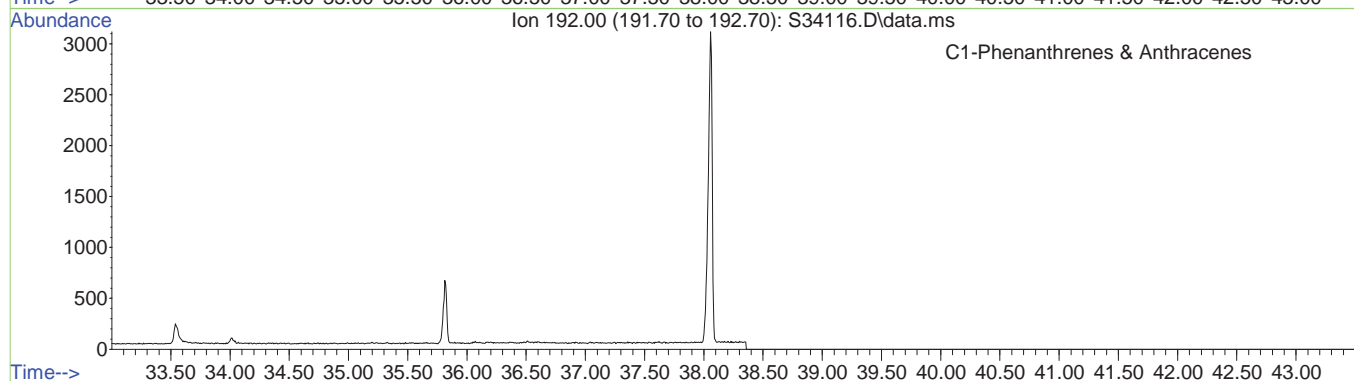
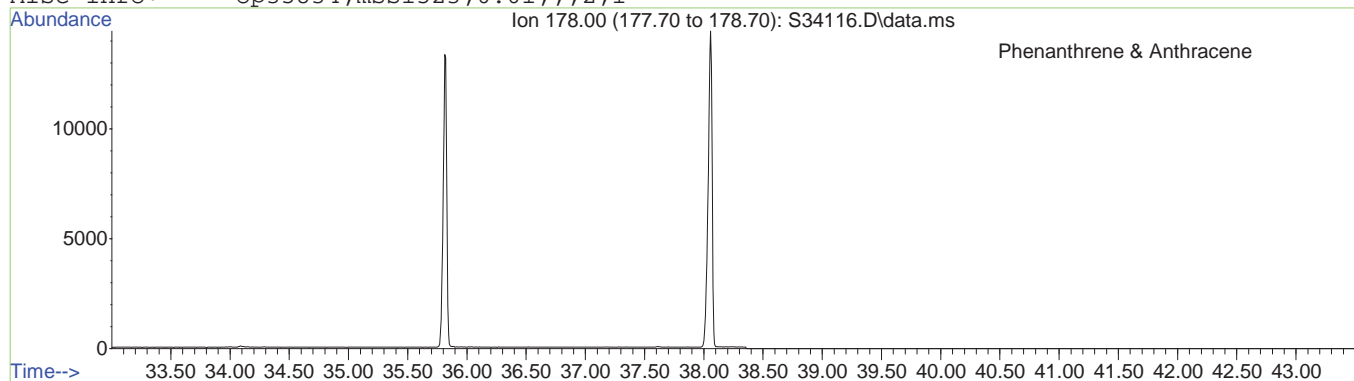
File: Z:\1\data\S131120\S34116.D  
Date Acquired: 20 Nov 2013 1:04 pm  
Sample Name: op35834-mb  
Misc Info: op35834,mss1523,0.01,,,2,1



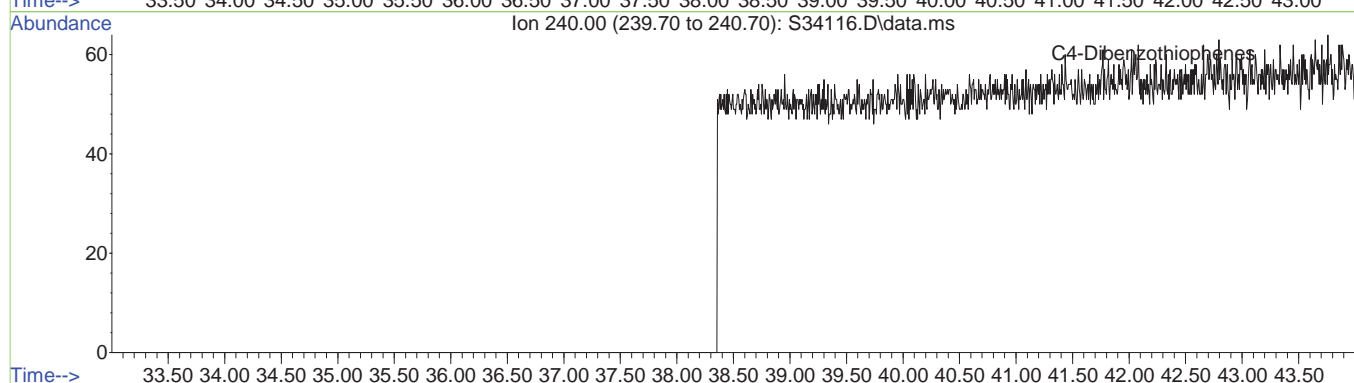
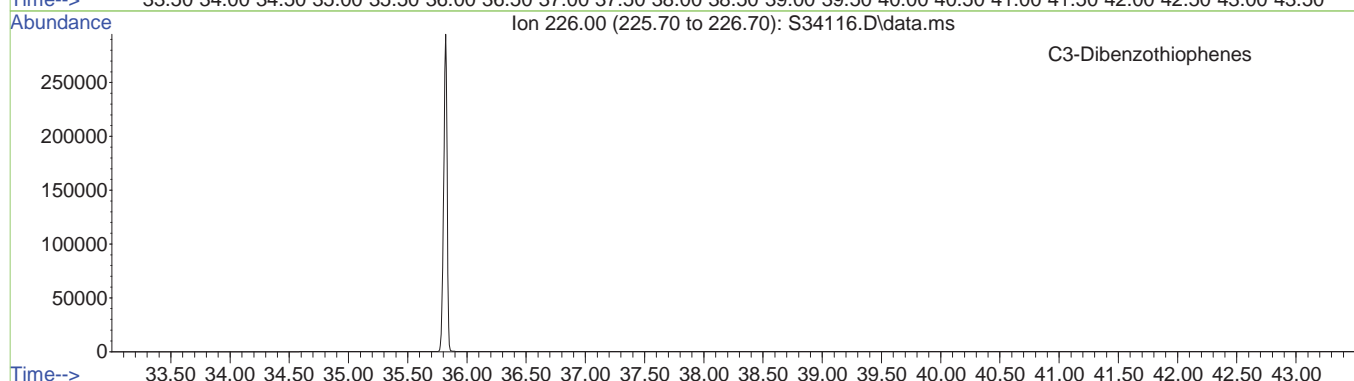
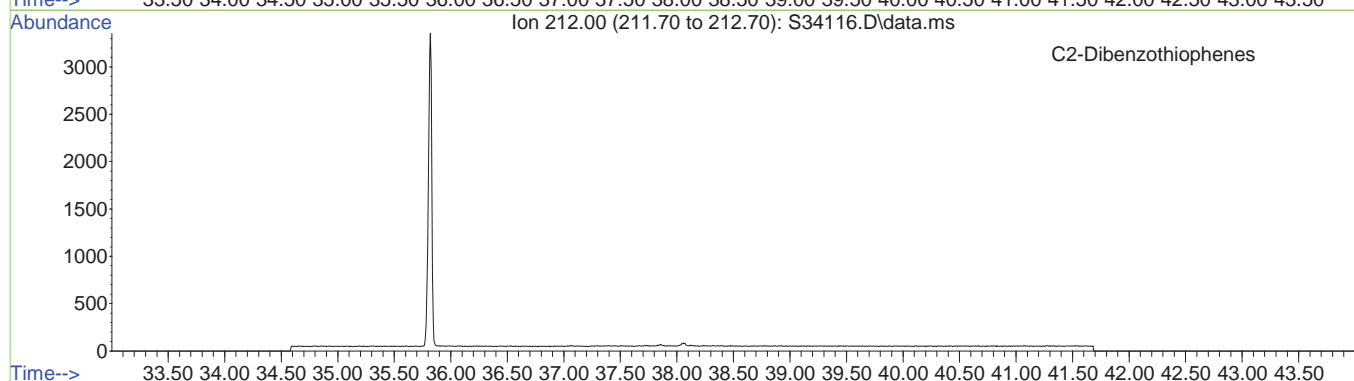
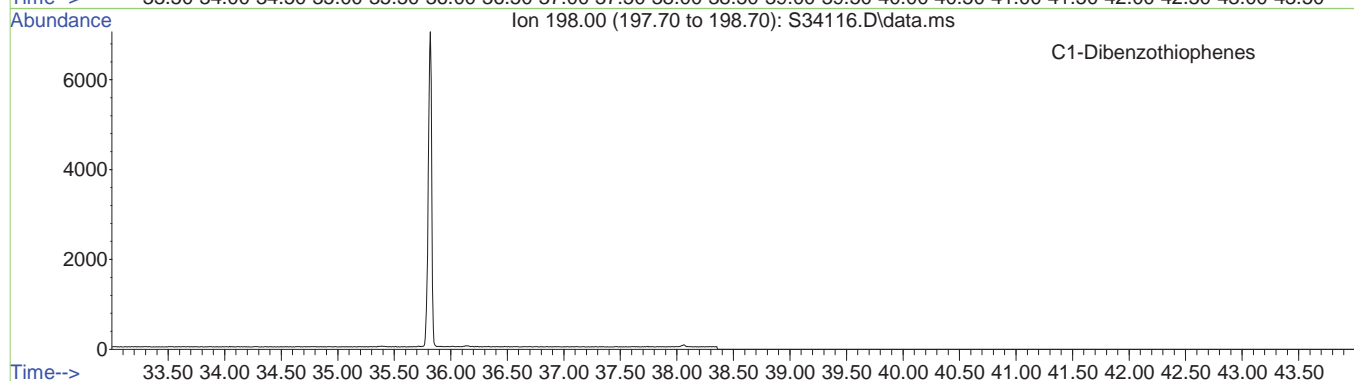
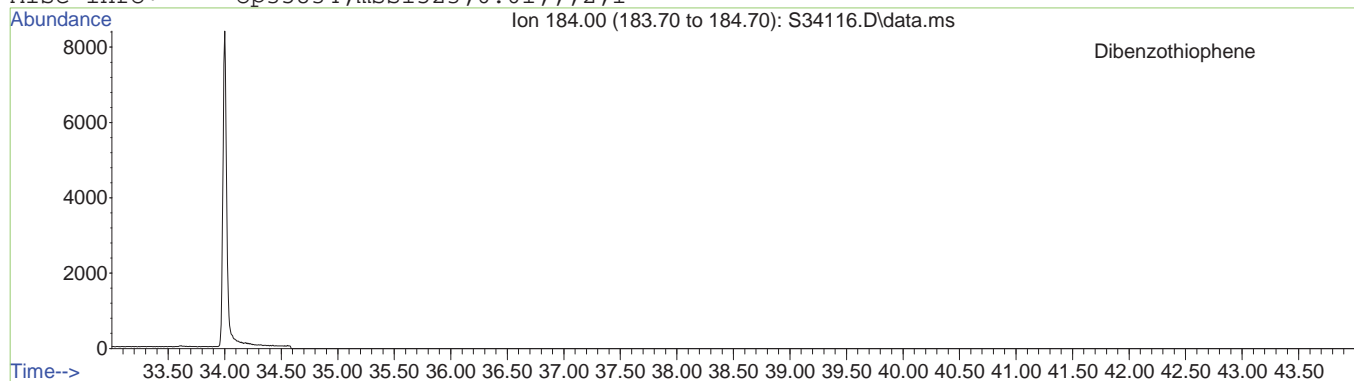
File: Z:\1\data\S131120\S34116.D  
 Date Acquired: 20 Nov 2013 1:04 pm  
 Method File: SAPAHSIM-MTBE.M  
 Sample Name: op35834-mb  
 Misc Info: op35834,mss1523,0.01,,2,1



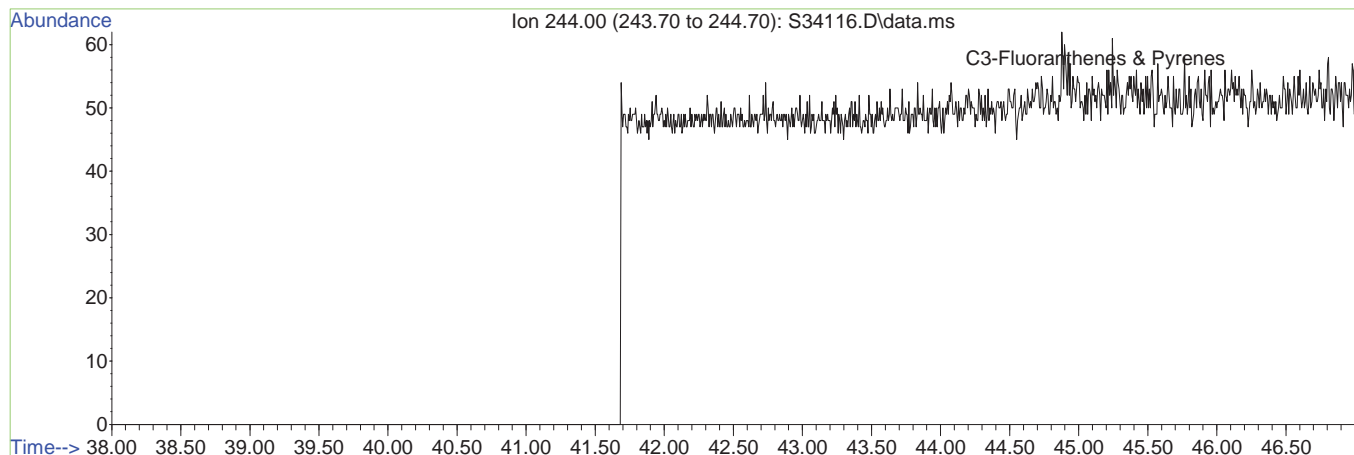
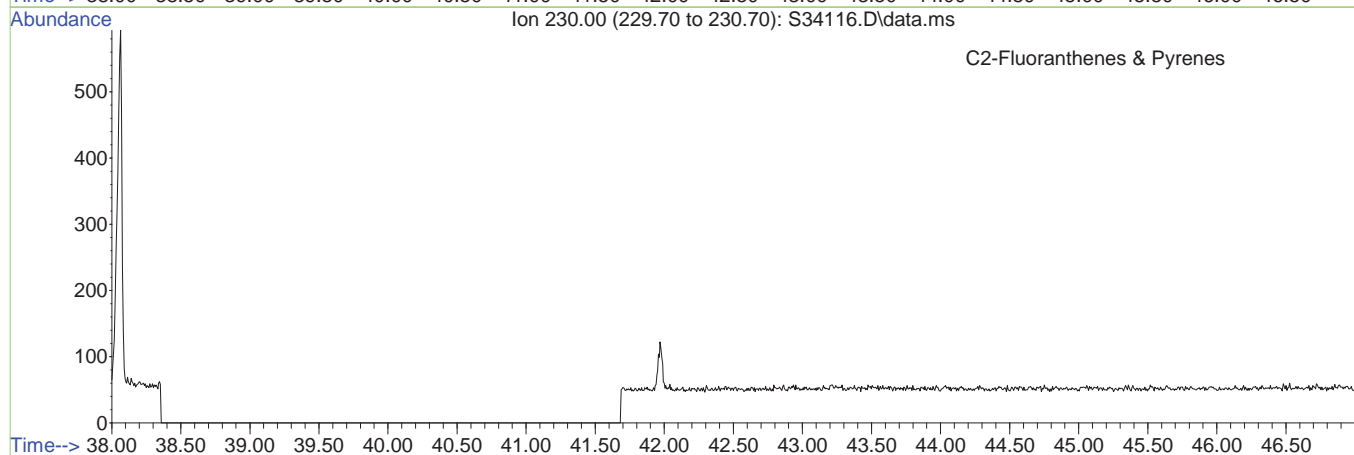
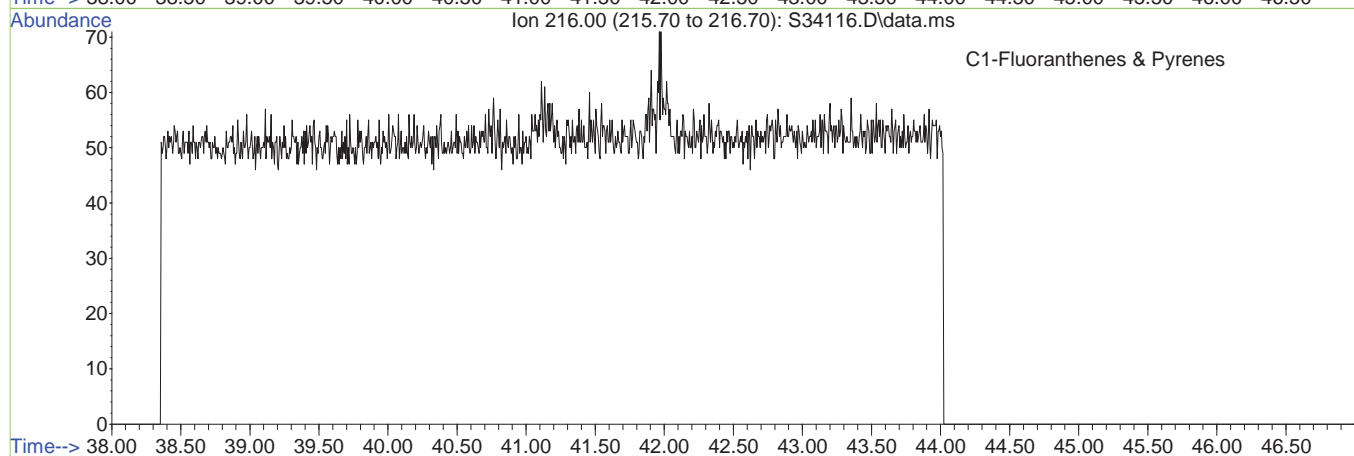
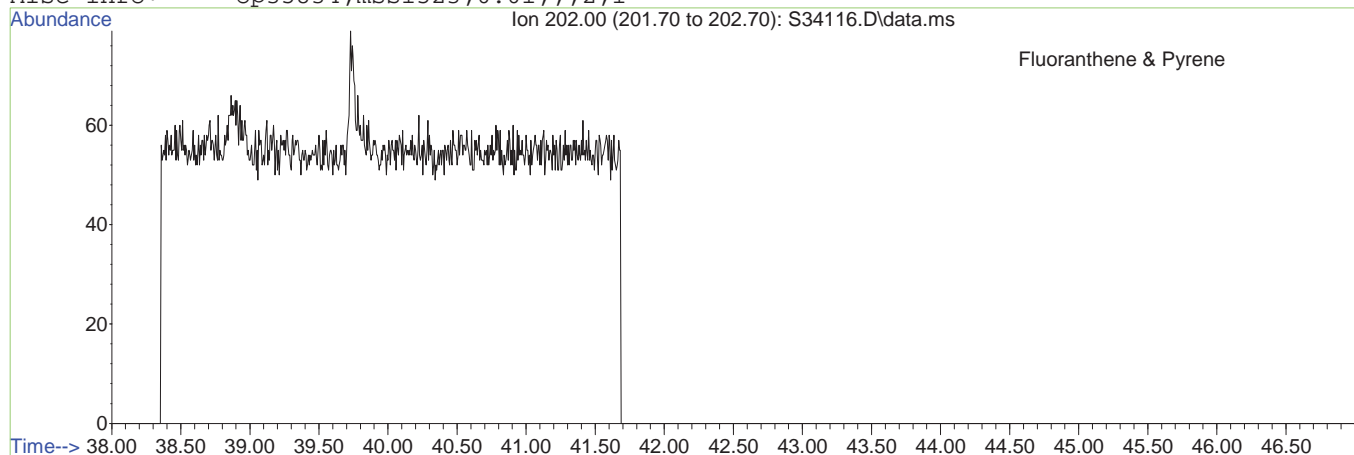
File: Z:\1\data\S131120\S34116.D  
Date Acquired: 20 Nov 2013 1:04 pm  
Sample Name: op35834-mb  
Misc Info: op35834,mss1523,0.01,,,2,1



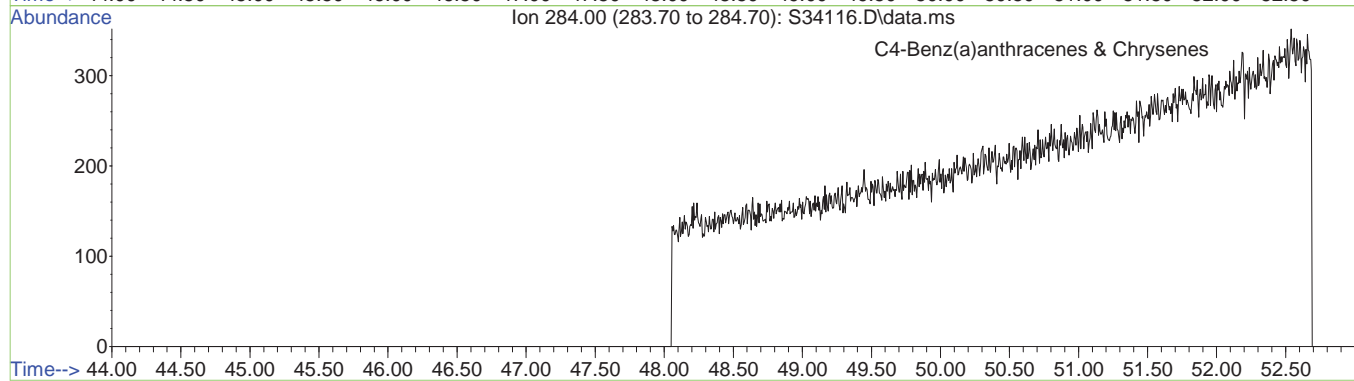
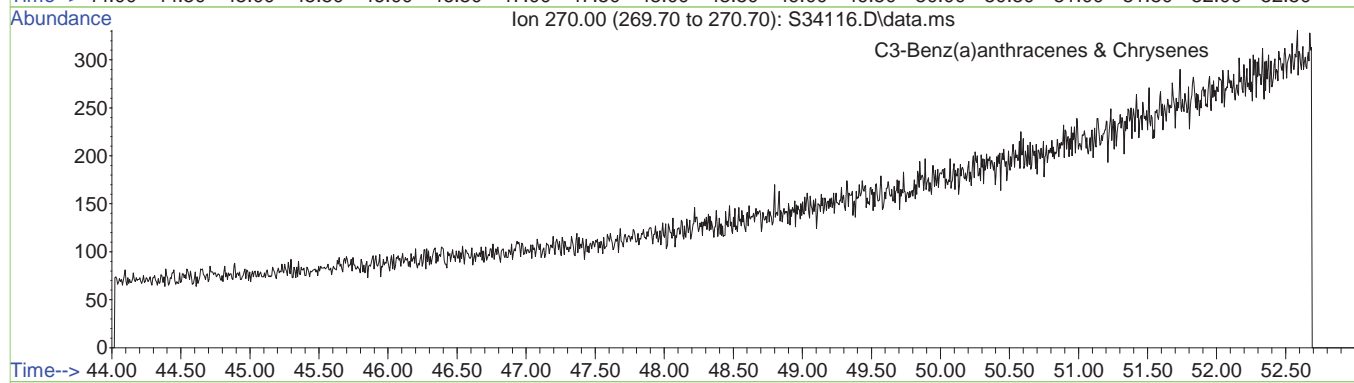
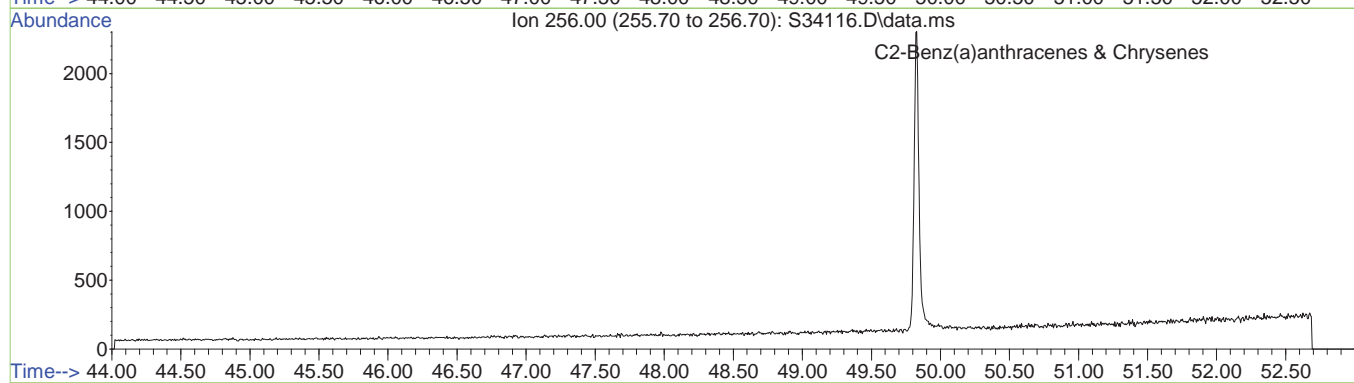
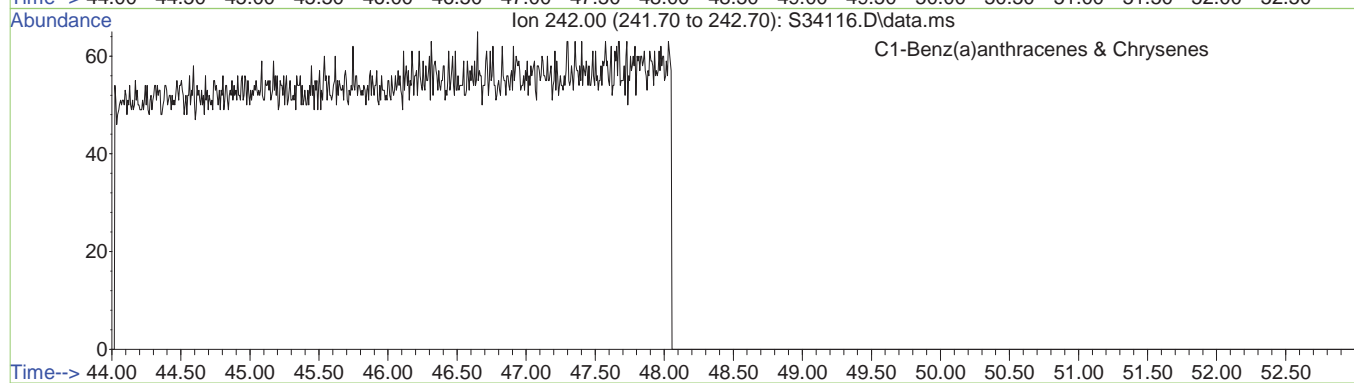
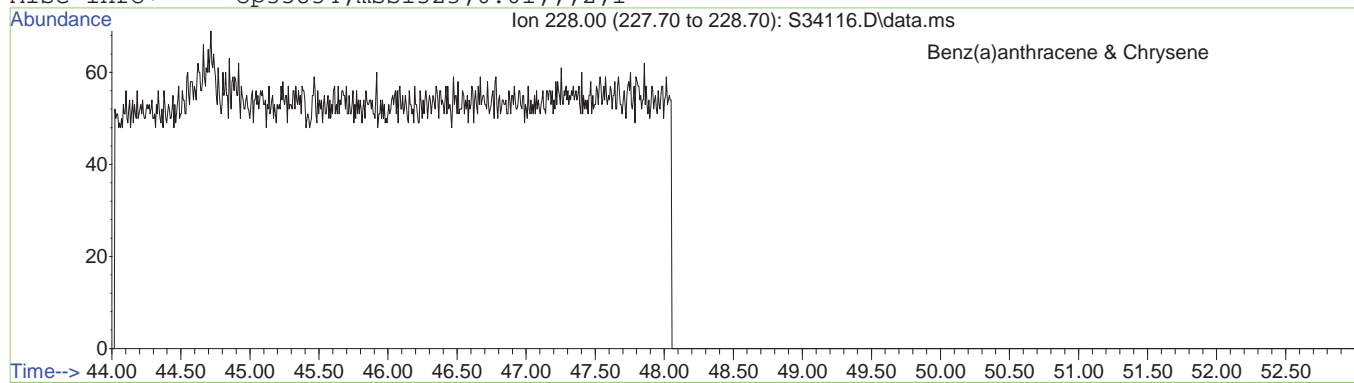
File: Z:\1\data\S131120\S34116.D  
Date Acquired: 20 Nov 2013 1:04 pm  
Sample Name: op35834-mb  
Misc Info: op35834,mss1523,0.01,,,2,1



File: Z:\1\data\S131120\S34116.D  
Date Acquired: 20 Nov 2013 1:04 pm  
Method File: SAPAHSIM-MTBE.M  
Sample Name: op35834-mb  
Misc Info: op35834,mss1523,0.01,,2,1



File: Z:\1\data\S131120\S34116.D  
 Date Acquired: 20 Nov 2013 1:04 pm  
 Sample Name: op35834-mb  
 Misc Info: op35834,mss1523,0.01,,,2,1

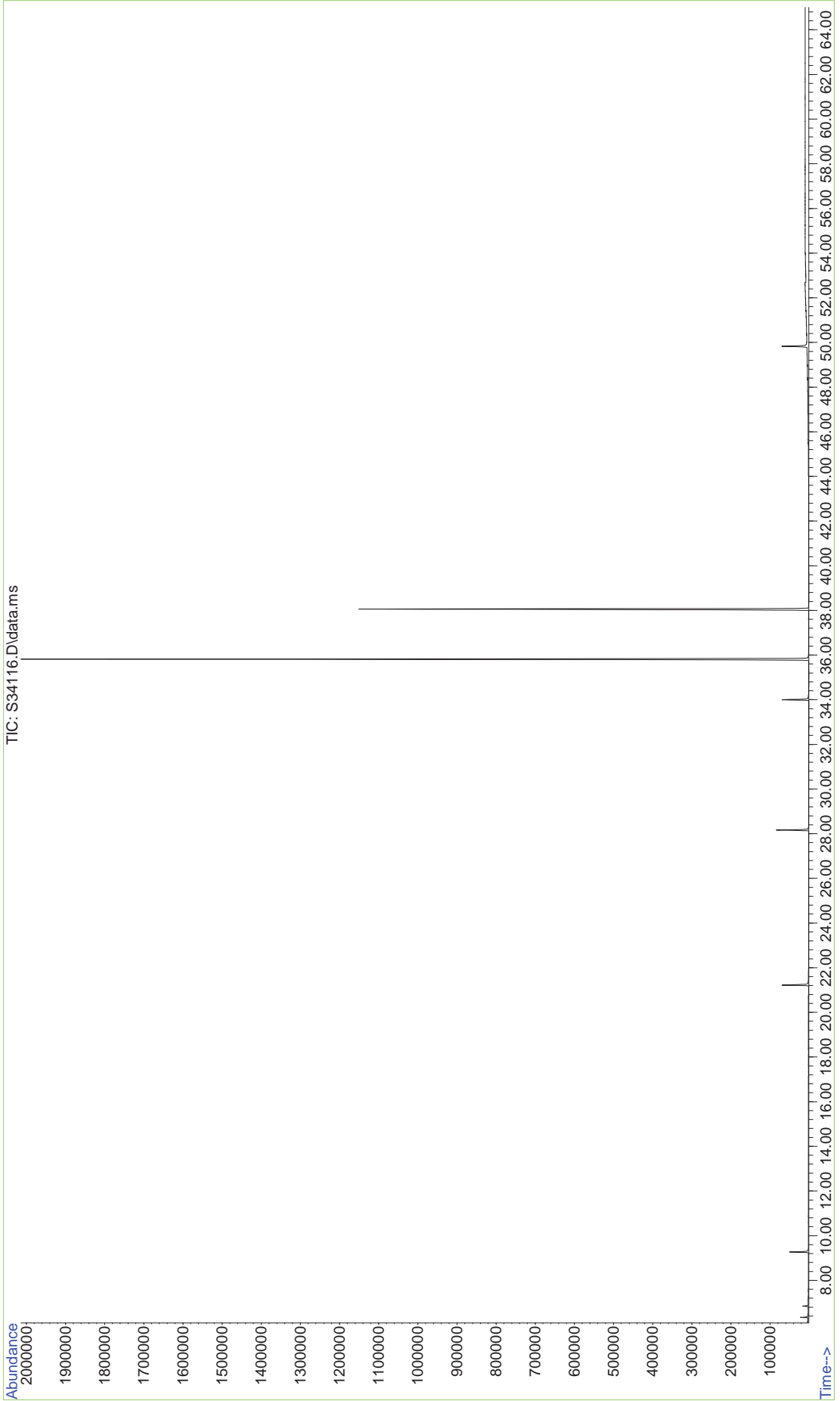




ACCUTEST

GC/MS TOTAL ION CHROMATOGRAM

File: Z:\1\data\S131120\S34116.D  
Date Acquired: 20 Nov 2013 1:04 pm  
Method File: SAPAHSIM-MTBE.M  
Sample Name: op35834-mb  
Misc Info: op35834,mss1523,0.01,,2,1



# **Appendix E**

## **Accutest Laboratory Report**

**Technical Report for**

**META Environmental, Inc.**

Parsons, Halleck Street, NJ

Accutest Job Number: MC26103

Sampling Date: 10/31/13

**Report to:**

META Environmental, Inc.  
115 Dean Avenue Suite 300  
Franklin MA 02038, MA 02038  
dmauro@metaenv.com

ATTN: Dave Mauro

Total number of pages in report: **89**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

  
Reza Fand  
Lab Director

**Client Service contact: Matthew Morrell 508-481-6200**

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579)  
NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220)  
DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>4</b>
<b>Section 3: Summary of Hits .....</b>	<b>5</b>
<b>Section 4: Sample Results .....</b>	<b>7</b>
<b>4.1: MC26103-1: SB-4(15-17)NAPL .....</b>	<b>8</b>
<b>Section 5: Misc. Forms .....</b>	<b>12</b>
<b>5.1: Chain of Custody .....</b>	<b>13</b>
<b>Section 6: GC/MS Semi-volatiles - QC Data Summaries .....</b>	<b>15</b>
<b>6.1: Method Blank Summary .....</b>	<b>16</b>
<b>6.2: Blank Spike Summary .....</b>	<b>19</b>
<b>6.3: Duplicate Summary .....</b>	<b>22</b>
<b>6.4: Surrogate Recovery Summaries .....</b>	<b>25</b>
<b>Section 7: GC/MS Semi-volatiles - Raw Data .....</b>	<b>26</b>
<b>7.1: Samples .....</b>	<b>27</b>
<b>7.2: Method Blanks .....</b>	<b>74</b>
<b>Section 8: GC Semi-volatiles - QC Data Summaries .....</b>	<b>78</b>
<b>8.1: Method Blank Summary .....</b>	<b>79</b>
<b>8.2: Blank Spike Summary .....</b>	<b>80</b>
<b>8.3: Duplicate Summary .....</b>	<b>81</b>
<b>8.4: Surrogate Recovery Summaries .....</b>	<b>82</b>
<b>Section 9: GC Semi-volatiles - Raw Data .....</b>	<b>83</b>
<b>9.1: Samples .....</b>	<b>84</b>
<b>9.2: Method Blanks .....</b>	<b>87</b>

1

2

3

4

5

6

7

8

9



Accutest Laboratories

## Sample Summary

META Environmental, Inc.

Job No: MC26103

Parsons, Halleck Street, NJ

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC26103-1	10/31/13	14:15 ZL	11/08/13	SO	Oil	SB-4(15-17)NAPL

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** META Environmental, Inc.

**Job No** MC26103

**Site:** Parsons, Halleck Street, NJ

**Report Date** 11/26/2013 11:48:42 AM

1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 10/31/2013 and were received at Accutest on 11/08/2013 properly preserved, at 0.5 Deg. C and intact. These Samples received an Accutest job number of MC26103. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Extractables by GCMS By Method D5739-06/8270C SIM

**Matrix:** SO

**Batch ID:** OP35834

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC26103-1DUP were used as the QC samples indicated.
- RPD(s) for Duplicate for the majority of the compounds are outside control limits for sample OP35834-DUP1. High RPD due to possible sample heterogeneity.
- MC26103-1: Sample extracted beyond the recommended holding time for soils.

### Extractables by GC By Method ASTM D3328-06

**Matrix:** SO

**Batch ID:** OP35833

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC26103-1DUP were used as the QC samples indicated.
- MC26103-1: Sample extracted beyond the recommended holding time for soils.
- OP35833-DUP1, MC26103-1 for o-Terphenyl: Outside control limits due to dilution.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC26103).

**Summary of Hits**

**Job Number:** MC26103  
**Account:** META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ  
**Collected:** 10/31/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
MC26103-1	SB-4(15-17)NAPL					
		Benzene <sup>a</sup>	10900000	910000	ug/kg	D5739-06/8270C SIM
		C1-Benzene <sup>a</sup>	1580000	910000	ug/kg	D5739-06/8270C SIM
		C2-Benzenes <sup>a</sup>	72300000	910000	ug/kg	D5739-06/8270C SIM
		C3-Benzenes <sup>a</sup>	82600000	910000	ug/kg	D5739-06/8270C SIM
		C4-Benzenes <sup>a</sup>	43300000	910000	ug/kg	D5739-06/8270C SIM
		C5-Benzenes <sup>a</sup>	12800000	910000	ug/kg	D5739-06/8270C SIM
		Toluene <sup>a</sup>	2190000	910000	ug/kg	D5739-06/8270C SIM
		Ethylbenzene <sup>a</sup>	55300000	910000	ug/kg	D5739-06/8270C SIM
		m,p-Xylene <sup>a</sup>	52800000	910000	ug/kg	D5739-06/8270C SIM
		Styrene <sup>a</sup>	11300000	910000	ug/kg	D5739-06/8270C SIM
		o-Xylene <sup>a</sup>	23800000	910000	ug/kg	D5739-06/8270C SIM
		Isopropylbenzene <sup>a</sup>	6660000	910000	ug/kg	D5739-06/8270C SIM
		n-Propylbenzene <sup>a</sup>	2440000	910000	ug/kg	D5739-06/8270C SIM
		1,3,5-Trimethylbenzene <sup>a</sup>	13200000	910000	ug/kg	D5739-06/8270C SIM
		1,2,3-Trimethylbenzene <sup>a</sup>	13500000	910000	ug/kg	D5739-06/8270C SIM
		1,2,4-Trimethylbenzene <sup>a</sup>	40900000	910000	ug/kg	D5739-06/8270C SIM
		t-Butylbenzene <sup>a</sup>	5370000	910000	ug/kg	D5739-06/8270C SIM
		p-Isopropyltoluene <sup>a</sup>	6740000	910000	ug/kg	D5739-06/8270C SIM
		n-Butylbenzene <sup>a</sup>	1480000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(b)thiophene <sup>a</sup>	26600000	910000	ug/kg	D5739-06/8270C SIM
		Naphthalene <sup>a</sup>	744000000	910000	ug/kg	D5739-06/8270C SIM
		2-Methylnaphthalene <sup>a</sup>	310000000	910000	ug/kg	D5739-06/8270C SIM
		1-Methylnaphthalene <sup>a</sup>	195000000	910000	ug/kg	D5739-06/8270C SIM
		C1-Naphthalenes <sup>a</sup>	331000000	910000	ug/kg	D5739-06/8270C SIM
		C2-Naphthalenes <sup>a</sup>	155000000	910000	ug/kg	D5739-06/8270C SIM
		C3-Naphthalenes <sup>a</sup>	51800000	910000	ug/kg	D5739-06/8270C SIM
		C4-Naphthalenes <sup>a</sup>	14800000	910000	ug/kg	D5739-06/8270C SIM
		Biphenyl <sup>a</sup>	27300000	910000	ug/kg	D5739-06/8270C SIM
		Acenaphthylene <sup>a</sup>	25200000	910000	ug/kg	D5739-06/8270C SIM
		Acenaphthene <sup>a</sup>	102000000	910000	ug/kg	D5739-06/8270C SIM
		Dibenzofuran <sup>a</sup>	9390000	910000	ug/kg	D5739-06/8270C SIM
		Fluorene <sup>a</sup>	48300000	910000	ug/kg	D5739-06/8270C SIM
		C1-Fluorenes <sup>a</sup>	23600000	910000	ug/kg	D5739-06/8270C SIM
		C2-Fluorenes <sup>a</sup>	13900000	910000	ug/kg	D5739-06/8270C SIM
		C3-Fluorenes <sup>a</sup>	6710000	910000	ug/kg	D5739-06/8270C SIM
		Dibenzothiophene <sup>a</sup>	28500000	910000	ug/kg	D5739-06/8270C SIM
		C1-Dibenzothiophenes <sup>a</sup>	26300000	910000	ug/kg	D5739-06/8270C SIM
		C2-Dibenzothiophenes <sup>a</sup>	16100000	910000	ug/kg	D5739-06/8270C SIM
		C3-Dibenzothiophenes <sup>a</sup>	6760000	910000	ug/kg	D5739-06/8270C SIM
		C4-Dibenzothiophenes <sup>a</sup>	1670000	910000	ug/kg	D5739-06/8270C SIM
		Phenanthrene <sup>a</sup>	179000000	910000	ug/kg	D5739-06/8270C SIM
		Anthracene <sup>a</sup>	53200000	910000	ug/kg	D5739-06/8270C SIM
		C1-Phenanthrenes/Anthracenes <sup>a</sup>	90900000	910000	ug/kg	D5739-06/8270C SIM

**Summary of Hits**

**Job Number:** MC26103  
**Account:** META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ  
**Collected:** 10/31/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
		C2-Phenanthrenes/Anthracenes <sup>a</sup>	33900000	910000	ug/kg	D5739-06/8270C SIM
		C3-Phenanthrenes/Anthracenes <sup>a</sup>	9630000	910000	ug/kg	D5739-06/8270C SIM
		C4-Phenanthrenes/Anthracenes <sup>a</sup>	2610000	910000	ug/kg	D5739-06/8270C SIM
		Retene <sup>a</sup>	1020000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(b)naphtho(2,1-d)thiophene <sup>a</sup>	4680000	910000	ug/kg	D5739-06/8270C SIM
		Fluoranthene <sup>a</sup>	53200000	910000	ug/kg	D5739-06/8270C SIM
		Pyrene <sup>a</sup>	87800000	910000	ug/kg	D5739-06/8270C SIM
		C1-Fluoranthenes/Pyrenes <sup>a</sup>	45700000	910000	ug/kg	D5739-06/8270C SIM
		C2-Fluoranthenes/Pyrenes <sup>a</sup>	11500000	910000	ug/kg	D5739-06/8270C SIM
		C3-Fluoranthenes/Pyrenes <sup>a</sup>	2630000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(b)fluorene <sup>a</sup>	3540000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(c)fluorene <sup>a</sup>	2140000	910000	ug/kg	D5739-06/8270C SIM
		2-Methylpyrene <sup>a</sup>	6480000	910000	ug/kg	D5739-06/8270C SIM
		4-Methylpyrene <sup>a</sup>	5760000	910000	ug/kg	D5739-06/8270C SIM
		1-Methylpyrene <sup>a</sup>	5610000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(a)anthracene <sup>a</sup>	22200000	910000	ug/kg	D5739-06/8270C SIM
		Chrysene <sup>a</sup>	22000000	910000	ug/kg	D5739-06/8270C SIM
		C1-Benzo(a)anthracenes/Chrysenes <sup>a</sup>	10300000	910000	ug/kg	D5739-06/8270C SIM
		C2-Benzo(a)anthracenes/Chrysenes <sup>a</sup>	4160000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(b)fluoranthene <sup>a</sup>	8440000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(k)fluoranthene <sup>a</sup>	12200000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(e)pyrene <sup>a</sup>	11700000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(a)pyrene <sup>a</sup>	21800000	910000	ug/kg	D5739-06/8270C SIM
		Perylene <sup>a</sup>	2850000	910000	ug/kg	D5739-06/8270C SIM
		Indeno(1,2,3-cd)pyrene <sup>a</sup>	7000000	910000	ug/kg	D5739-06/8270C SIM
		Dibenzo(a,h)anthracene <sup>a</sup>	2040000	910000	ug/kg	D5739-06/8270C SIM
		Benzo(g,h,i)perylene <sup>a</sup>	9150000	910000	ug/kg	D5739-06/8270C SIM
		Coronene <sup>a</sup>	2100000	910000	ug/kg	D5739-06/8270C SIM
		TPH (C8-C40) <sup>a</sup>	2510000	450000	mg/kg	ASTM D3328-06

(a) Sample extracted beyond the recommended holding time for soils.



Sample Results

---

Report of Analysis

---

Accutest Laboratories

## Report of Analysis

Page 1 of 3

<b>Client Sample ID:</b> SB-4(15-17)NAPL	<b>Date Sampled:</b> 10/31/13
<b>Lab Sample ID:</b> MC26103-1	<b>Date Received:</b> 11/08/13
<b>Matrix:</b> SO - Oil	<b>Percent Solids:</b> n/a
<b>Method:</b> D5739-06/8270C SIM SW846 3580A	
<b>Project:</b> Parsons, Halleck Street, NJ	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	S34121.D	10	11/20/13	RP	11/19/13	OP35834	MSS1523
Run #2							

	Initial Weight	Final Volume
Run #1	0.00110 g	10.0 ml
Run #2		

## Alkylated PAHs

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	10900000	910000	ug/kg	
	C1-Benzene	1580000	910000	ug/kg	
	C2-Benzenes	72300000	910000	ug/kg	
	C3-Benzenes	82600000	910000	ug/kg	
	C4-Benzenes	43300000	910000	ug/kg	
	C5-Benzenes	12800000	910000	ug/kg	
108-88-3	Toluene	2190000	910000	ug/kg	
100-41-4	Ethylbenzene	55300000	910000	ug/kg	
	m,p-Xylene	52800000	910000	ug/kg	
100-42-5	Styrene	11300000	910000	ug/kg	
95-47-6	o-Xylene	23800000	910000	ug/kg	
98-82-8	Isopropylbenzene	6660000	910000	ug/kg	
103-65-1	n-Propylbenzene	2440000	910000	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	13200000	910000	ug/kg	
526-73-8	1,2,3-Trimethylbenzene	13500000	910000	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	40900000	910000	ug/kg	
98-06-6	t-Butylbenzene	5370000	910000	ug/kg	
135-98-8	sec-Butylbenzene	ND	910000	ug/kg	
99-87-6	p-Isopropyltoluene	6740000	910000	ug/kg	
104-51-8	n-Butylbenzene	1480000	910000	ug/kg	
493-02-7	trans-Decalin	ND	910000	ug/kg	
493-01-6	cis-Decalin	ND	910000	ug/kg	
11095-43-5	Benzo(b)thiophene	26600000	910000	ug/kg	
91-20-3	Naphthalene	744000000	910000	ug/kg	
91-57-6	2-Methylnaphthalene	310000000	910000	ug/kg	
90-12-0	1-Methylnaphthalene	195000000	910000	ug/kg	
	C1-Naphthalenes	331000000	910000	ug/kg	
	C2-Naphthalenes	155000000	910000	ug/kg	
	C3-Naphthalenes	51800000	910000	ug/kg	
	C4-Naphthalenes	14800000	910000	ug/kg	
92-52-4	Biphenyl	27300000	910000	ug/kg	
208-96-8	Acenaphthylene	25200000	910000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

Page 2 of 3

<b>Client Sample ID:</b> SB-4(15-17)NAPL	<b>Date Sampled:</b> 10/31/13
<b>Lab Sample ID:</b> MC26103-1	<b>Date Received:</b> 11/08/13
<b>Matrix:</b> SO - Oil	<b>Percent Solids:</b> n/a
<b>Method:</b> D5739-06/8270C SIM SW846 3580A	
<b>Project:</b> Parsons, Halleck Street, NJ	

## Alkylated PAHs

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	102000000	910000	ug/kg	
132-64-9	Dibenzofuran	9390000	910000	ug/kg	
86-73-7	Fluorene	48300000	910000	ug/kg	
	C1-Fluorenes	23600000	910000	ug/kg	
	C2-Fluorenes	13900000	910000	ug/kg	
	C3-Fluorenes	6710000	910000	ug/kg	
132-65-0	Dibenzothiophene	28500000	910000	ug/kg	
	C1-Dibenzothiophenes	26300000	910000	ug/kg	
	C2-Dibenzothiophenes	16100000	910000	ug/kg	
	C3-Dibenzothiophenes	6760000	910000	ug/kg	
	C4-Dibenzothiophenes	1670000	910000	ug/kg	
85-01-8	Phenanthrene	179000000	910000	ug/kg	
120-12-7	Anthracene	53200000	910000	ug/kg	
	C1-Phenanthrenes/Anthracene	90900000	910000	ug/kg	
	C2-Phenanthrenes/Anthracene	33900000	910000	ug/kg	
	C3-Phenanthrenes/Anthracene	9630000	910000	ug/kg	
	C4-Phenanthrenes/Anthracene	2610000	910000	ug/kg	
483-65-8	Retene	1020000	910000	ug/kg	
239-35-0	Benzo(b)naphtho(2,1-d)thioph	4680000	910000	ug/kg	
206-44-0	Fluoranthene	53200000	910000	ug/kg	
129-00-0	Pyrene	87800000	910000	ug/kg	
	C1-Fluoranthenes/Pyrenes	45700000	910000	ug/kg	
	C2-Fluoranthenes/Pyrenes	11500000	910000	ug/kg	
	C3-Fluoranthenes/Pyrenes	2630000	910000	ug/kg	
243-17-4	Benzo(b)fluorene	3540000	910000	ug/kg	
205-12-9	Benzo(c)fluorene	2140000	910000	ug/kg	
3442-78-2	2-Methylpyrene	6480000	910000	ug/kg	
3353-12-6	4-Methylpyrene	5760000	910000	ug/kg	
2381-21-7	1-Methylpyrene	5610000	910000	ug/kg	
56-55-3	Benzo(a)anthracene	22200000	910000	ug/kg	
218-01-9	Chrysene	22000000	910000	ug/kg	
	C1-Benzo(a)anthracenes/Chrys	10300000	910000	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	4160000	910000	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	910000	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	910000	ug/kg	
205-99-2	Benzo(b)fluoranthene	8440000	910000	ug/kg	
207-08-9	Benzo(k)fluoranthene	12200000	910000	ug/kg	
192-97-2	Benzo(e)pyrene	11700000	910000	ug/kg	
50-32-8	Benzo(a)pyrene	21800000	910000	ug/kg	
198-55-0	Perylene	2850000	910000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

**Report of Analysis**

Page 3 of 3

<b>Client Sample ID:</b> SB-4(15-17)NAPL	<b>Date Sampled:</b> 10/31/13
<b>Lab Sample ID:</b> MC26103-1	<b>Date Received:</b> 11/08/13
<b>Matrix:</b> SO - Oil	<b>Percent Solids:</b> n/a
<b>Method:</b> D5739-06/8270C SIM SW846 3580A	
<b>Project:</b> Parsons, Halleck Street, NJ	

**Alkylated PAHs**

CAS No.	Compound	Result	RL	Units	Q
193-39-5	Indeno(1,2,3-cd)pyrene	7000000	910000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	2040000	910000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	9150000	910000	ug/kg	
191-07-1	Coronene	2100000	910000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	85%		40-140%
1146-65-2	Naphthalene-d8	76%		40-140%
1517-22-2	Phenanthrene-d10	70%		40-140%
	Perylene-d12	58%		40-140%

(a) Sample extracted beyond the recommended holding time for soils.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB-4(15-17)NAPL	<b>Date Sampled:</b>	10/31/13
<b>Lab Sample ID:</b>	MC26103-1	<b>Date Received:</b>	11/08/13
<b>Matrix:</b>	SO - Oil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	ASTM D3328-06 SW846 3580A		
<b>Project:</b>	Parsons, Halleck Street, NJ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BG42080.D	1	11/20/13	RP	11/19/13	OP35833	GBG1601
Run #2							

	Initial Weight	Final Volume
Run #1	0.00220 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	2510000	450000	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	430% <sup>b</sup>		40-140%	

(a) Sample extracted beyond the recommended holding time for soils.

(b) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Misc. Forms

---

5

## Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody



Accutest Job Number: MC26103 Client: META Immediate Client Services Action Required: No  
 Date / Time Received: 11/8/2013 Delivery Method: Client Service Action Required at Login: No  
 Project: HALLOCK ST No. Coolers: 1 Airbill #'s:

**Cooler Security**

1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Cooler Temperature**

1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	Infrared gun	
3. Cooler media:	Ice (bag)	

**Quality Control Preservation**

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. VOCs headspace free:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Sample Integrity - Documentation**

1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Sample Integrity - Condition**

1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Condition of sample:	Intact	

**Sample Integrity - Instructions**

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Comments

5.1  
5



## GC/MS Semi-volatiles

---

## QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

**Method Blank Summary**

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-MB	S34116.D	1	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	9220	2000	ug/kg	
	C1-Benzene	ND	2000	ug/kg	
	C2-Benzenes	ND	2000	ug/kg	
	C3-Benzenes	ND	2000	ug/kg	
	C4-Benzenes	ND	2000	ug/kg	
	C5-Benzenes	ND	2000	ug/kg	
108-88-3	Toluene	ND	2000	ug/kg	
100-41-4	Ethylbenzene	ND	2000	ug/kg	
	m,p-Xylene	ND	2000	ug/kg	
100-42-5	Styrene	ND	2000	ug/kg	
95-47-6	o-Xylene	ND	2000	ug/kg	
98-82-8	Isopropylbenzene	ND	2000	ug/kg	
103-65-1	n-Propylbenzene	ND	2000	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2000	ug/kg	
526-73-8	1,2,3-Trimethylbenzene	ND	2000	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2000	ug/kg	
98-06-6	t-Butylbenzene	ND	2000	ug/kg	
135-98-8	sec-Butylbenzene	ND	2000	ug/kg	
99-87-6	p-Isopropyltoluene	ND	2000	ug/kg	
104-51-8	n-Butylbenzene	ND	2000	ug/kg	
493-02-7	trans-Decalin	ND	2000	ug/kg	
493-01-6	cis-Decalin	ND	2000	ug/kg	
11095-43-5	Benzo(b)thiophene	ND	2000	ug/kg	
91-20-3	Naphthalene	ND	2000	ug/kg	
91-57-6	2-Methylnaphthalene	ND	2000	ug/kg	
90-12-0	1-Methylnaphthalene	ND	2000	ug/kg	
	C1-Naphthalenes	ND	2000	ug/kg	
	C2-Naphthalenes	ND	2000	ug/kg	
	C3-Naphthalenes	ND	2000	ug/kg	
	C4-Naphthalenes	ND	2000	ug/kg	
92-52-4	Biphenyl	ND	2000	ug/kg	
208-96-8	Acenaphthylene	ND	2000	ug/kg	
83-32-9	Acenaphthene	ND	2000	ug/kg	
132-64-9	Dibenzofuran	ND	2000	ug/kg	
86-73-7	Fluorene	ND	2000	ug/kg	
	C1-Fluorenes	ND	2000	ug/kg	

**Method Blank Summary**

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-MB	S34116.D	1	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	Result	RL	Units	Q
	C2-Fluorenes	ND	2000	ug/kg	
	C3-Fluorenes	ND	2000	ug/kg	
132-65-0	Dibenzothiophene	ND	2000	ug/kg	
	C1-Dibenzothiophenes	ND	2000	ug/kg	
	C2-Dibenzothiophenes	ND	2000	ug/kg	
	C3-Dibenzothiophenes	ND	2000	ug/kg	
	C4-Dibenzothiophenes	ND	2000	ug/kg	
85-01-8	Phenanthrene	ND	2000	ug/kg	
120-12-7	Anthracene	ND	2000	ug/kg	
	C1-Phenanthrenes/Anthracene	ND	2000	ug/kg	
	C2-Phenanthrenes/Anthracene	ND	2000	ug/kg	
	C3-Phenanthrenes/Anthracene	ND	2000	ug/kg	
	C4-Phenanthrenes/Anthracene	ND	2000	ug/kg	
483-65-8	Retene	ND	2000	ug/kg	
239-35-0	Benzo(b)naphtho(2,1-d)thioph	ND	2000	ug/kg	
206-44-0	Fluoranthene	ND	2000	ug/kg	
129-00-0	Pyrene	ND	2000	ug/kg	
	C1-Fluoranthenes/Pyrenes	ND	2000	ug/kg	
	C2-Fluoranthenes/Pyrenes	ND	2000	ug/kg	
	C3-Fluoranthenes/Pyrenes	ND	2000	ug/kg	
243-17-4	Benzo(b)fluorene	ND	2000	ug/kg	
205-12-9	Benzo(c)fluorene	ND	2000	ug/kg	
3442-78-2	2-Methylpyrene	ND	2000	ug/kg	
3353-12-6	4-Methylpyrene	ND	2000	ug/kg	
2381-21-7	1-Methylpyrene	ND	2000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	2000	ug/kg	
218-01-9	Chrysene	ND	2000	ug/kg	
	C1-Benzo(a)anthracenes/Chrys	ND	2000	ug/kg	
	C2-Benzo(a)anthracenes/Chrys	ND	2000	ug/kg	
	C3-Benzo(a)anthracenes/Chrys	ND	2000	ug/kg	
	C4-Benzo(a)anthracenes/Chrys	ND	2000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	2000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	2000	ug/kg	
192-97-2	Benzo(e)pyrene	ND	2000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	2000	ug/kg	
198-55-0	Perylene	ND	2000	ug/kg	

**Method Blank Summary**

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-MB	S34116.D	1	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	Result	RL	Units	Q
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	2000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	2000	ug/kg	
191-07-1	Coronene	ND	2000	ug/kg	

CAS No.	Surrogate Recoveries	Result	Limits
2037-26-5	Toluene-D8	108%	40-140%
1146-65-2	Naphthalene-d8	90%	40-140%
1517-22-2	Phenanthrene-d10	88%	40-140%
	Perylene-d12	88%	40-140%

**Blank Spike Summary**

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-BS2	S34117.D	1	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	1000000	966000	97	50-150 <sup>a</sup>
	C1-Benzene		ND		50-150 <sup>a</sup>
	C2-Benzenes		ND		50-150 <sup>a</sup>
	C3-Benzenes		ND		50-150 <sup>a</sup>
	C4-Benzenes		ND		50-150 <sup>a</sup>
	C5-Benzenes		ND		50-150 <sup>a</sup>
108-88-3	Toluene	1000000	918000	92	50-150 <sup>a</sup>
100-41-4	Ethylbenzene	1000000	888000	89	50-150 <sup>a</sup>
	m,p-Xylene	1000000	896000	90	50-150 <sup>a</sup>
100-42-5	Styrene	1000000	878000	88	50-150 <sup>a</sup>
95-47-6	o-Xylene	1000000	907000	91	50-150 <sup>a</sup>
98-82-8	Isopropylbenzene	1000000	930000	93	50-150 <sup>a</sup>
103-65-1	n-Propylbenzene	1000000	916000	92	50-150 <sup>a</sup>
108-67-8	1,3,5-Trimethylbenzene	1000000	920000	92	50-150 <sup>a</sup>
526-73-8	1,2,3-Trimethylbenzene	1000000	922000	92	50-150 <sup>a</sup>
95-63-6	1,2,4-Trimethylbenzene	1000000	922000	92	50-150 <sup>a</sup>
98-06-6	t-Butylbenzene	1000000	937000	94	50-150 <sup>a</sup>
135-98-8	sec-Butylbenzene	1000000	947000	95	50-150 <sup>a</sup>
99-87-6	p-Isopropyltoluene	1000000	951000	95	50-150 <sup>a</sup>
104-51-8	n-Butylbenzene	1000000	922000	92	50-150 <sup>a</sup>
493-02-7	trans-Decalin	1000000	909000	91	50-150 <sup>a</sup>
493-01-6	cis-Decalin	1000000	933000	93	50-150 <sup>a</sup>
11095-43-5	Benzo(b)thiophene	1000000	996000	100	50-150 <sup>a</sup>
91-20-3	Naphthalene	1000000	951000	95	50-150
91-57-6	2-Methylnaphthalene	1000000	923000	92	50-150
90-12-0	1-Methylnaphthalene	1000000	943000	94	50-150
	C1-Naphthalenes		ND		50-150 <sup>a</sup>
	C2-Naphthalenes		ND		50-150 <sup>a</sup>
	C3-Naphthalenes		ND		50-150 <sup>a</sup>
	C4-Naphthalenes		ND		50-150 <sup>a</sup>
92-52-4	Biphenyl	1000000	897000	90	50-150 <sup>a</sup>
208-96-8	Acenaphthylene	1000000	1050000	105	50-150
83-32-9	Acenaphthene	1000000	991000	99	50-150
132-64-9	Dibenzofuran	1000000	998000	100	50-150
86-73-7	Fluorene	1000000	957000	96	50-150
	C1-Fluorenes		ND		50-150 <sup>a</sup>

\* = Outside of Control Limits.

**Blank Spike Summary**

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-BS2	S34117.D	1	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
	C2-Fluorenes		ND		50-150 <sup>a</sup>
	C3-Fluorenes		ND		50-150 <sup>a</sup>
132-65-0	Dibenzothiophene	1000000	968000	97	50-150 <sup>a</sup>
	C1-Dibenzothiophenes		ND		50-150 <sup>a</sup>
	C2-Dibenzothiophenes		ND		50-150 <sup>a</sup>
	C3-Dibenzothiophenes		ND		50-150 <sup>a</sup>
	C4-Dibenzothiophenes		ND		50-150 <sup>a</sup>
85-01-8	Phenanthrene	1000000	954000	95	50-150
120-12-7	Anthracene	1000000	998000	100	50-150
	C1-Phenanthrenes/Anthracene		ND		50-150 <sup>a</sup>
	C2-Phenanthrenes/Anthracene		ND		50-150 <sup>a</sup>
	C3-Phenanthrenes/Anthracene		ND		50-150 <sup>a</sup>
	C4-Phenanthrenes/Anthracene		ND		50-150 <sup>a</sup>
483-65-8	Retene	1000000	932000	93	50-150 <sup>a</sup>
239-35-0	Benzo(b)naphtho(2,1-d)thioph	1000000	850000	85	50-150 <sup>a</sup>
206-44-0	Fluoranthene	1000000	946000	95	50-150
129-00-0	Pyrene	1000000	928000	93	50-150
	C1-Fluoranthenes/Pyrenes		ND		50-150 <sup>a</sup>
	C2-Fluoranthenes/Pyrenes		ND		50-150 <sup>a</sup>
	C3-Fluoranthenes/Pyrenes		ND		50-150 <sup>a</sup>
243-17-4	Benzo(b)fluorene		ND		50-150 <sup>a</sup>
205-12-9	Benzo(c)fluorene		ND		50-150 <sup>a</sup>
3442-78-2	2-Methylpyrene		ND		50-150 <sup>a</sup>
3353-12-6	4-Methylpyrene		ND		50-150 <sup>a</sup>
2381-21-7	1-Methylpyrene		ND		50-150 <sup>a</sup>
56-55-3	Benzo(a)anthracene	1000000	840000	84	50-150
218-01-9	Chrysene	1000000	845000	85	50-150
	C1-Benzo(a)anthracenes/Chrys		ND		50-150 <sup>a</sup>
	C2-Benzo(a)anthracenes/Chrys		ND		50-150 <sup>a</sup>
	C3-Benzo(a)anthracenes/Chrys		ND		50-150 <sup>a</sup>
	C4-Benzo(a)anthracenes/Chrys		ND		50-150 <sup>a</sup>
205-99-2	Benzo(b)fluoranthene	1000000	861000	86	50-150
207-08-9	Benzo(k)fluoranthene	1000000	846000	85	50-150
192-97-2	Benzo(e)pyrene	1000000	849000	85	50-150 <sup>a</sup>
50-32-8	Benzo(a)pyrene	1000000	824000	82	50-150
198-55-0	Perylene	1000000	846000	85	50-150 <sup>a</sup>

\* = Outside of Control Limits.

**Blank Spike Summary**

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-BS2	S34117.D	1	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	843000	84	50-150
53-70-3	Dibenzo(a,h)anthracene	1000000	727000	73	50-150
191-24-2	Benzo(g,h,i)perylene	1000000	838000	84	50-150
191-07-1	Coronene	1000000	820000	82	50-150 <sup>a</sup>

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	102%	40-140%
1146-65-2	Naphthalene-d8	95%	40-140%
1517-22-2	Phenanthrene-d10	93%	40-140%
	Perylene-d12	79%	40-140%

(a) Advisory control limits.

\* = Outside of Control Limits.

**Duplicate Summary**

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-DUP1	S34120.D	10	11/20/13	RP	11/19/13	OP35834	MSS1523
MC26103-1 <sup>a</sup>	S34121.D	10	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	MC26103-1 DUP		RPD	Limits
		ug/kg	Q		
71-43-2	Benzene	10900000	3930000	94* <sup>b</sup>	30 <sup>c</sup>
	C1-Benzene	1580000	745000	72* <sup>b</sup>	30 <sup>c</sup>
	C2-Benzenes	72300000	28700000	86* <sup>b</sup>	30 <sup>c</sup>
	C3-Benzenes	82600000	35800000	79* <sup>b</sup>	30 <sup>c</sup>
	C4-Benzenes	43300000	21800000	66* <sup>b</sup>	30 <sup>c</sup>
	C5-Benzenes	12800000	7390000	54* <sup>b</sup>	30 <sup>c</sup>
108-88-3	Toluene	2190000	999000	75* <sup>b</sup>	30 <sup>c</sup>
100-41-4	Ethylbenzene	55300000	21300000	89* <sup>b</sup>	30 <sup>c</sup>
	m,p-Xylene	52800000	20600000	88* <sup>b</sup>	30 <sup>c</sup>
100-42-5	Styrene	11300000	7770000	37* <sup>b</sup>	30 <sup>c</sup>
95-47-6	o-Xylene	23800000	9760000	84* <sup>b</sup>	30 <sup>c</sup>
98-82-8	Isopropylbenzene	6660000	2710000	84* <sup>b</sup>	30 <sup>c</sup>
103-65-1	n-Propylbenzene	2440000	1080000	77* <sup>b</sup>	30 <sup>c</sup>
108-67-8	1,3,5-Trimethylbenzene	13200000	5830000	77* <sup>b</sup>	30 <sup>c</sup>
526-73-8	1,2,3-Trimethylbenzene	13500000	6160000	75* <sup>b</sup>	30 <sup>c</sup>
95-63-6	1,2,4-Trimethylbenzene	40900000	18100000	77* <sup>b</sup>	30 <sup>c</sup>
98-06-6	t-Butylbenzene	5370000	2530000	72* <sup>b</sup>	30 <sup>c</sup>
135-98-8	sec-Butylbenzene	ND	ND	nc	30 <sup>c</sup>
99-87-6	p-Isopropyltoluene	6740000	3070000	75* <sup>b</sup>	30 <sup>c</sup>
104-51-8	n-Butylbenzene	1480000	802000	59* <sup>b</sup>	30 <sup>c</sup>
493-02-7	trans-Decalin	ND	ND	nc	30 <sup>c</sup>
493-01-6	cis-Decalin	ND	ND	nc	30 <sup>c</sup>
11095-43-5	Benzo(b)thiophene	26600000	13600000	65* <sup>b</sup>	30 <sup>c</sup>
91-20-3	Naphthalene	744000000	374000000	66* <sup>b</sup>	30
91-57-6	2-Methylnaphthalene	310000000	158000000	65* <sup>b</sup>	30
90-12-0	1-Methylnaphthalene	195000000	107000000	58* <sup>b</sup>	30
	C1-Naphthalenes	331000000	174000000	62* <sup>b</sup>	30 <sup>c</sup>
	C2-Naphthalenes	155000000	89500000	54* <sup>b</sup>	30 <sup>c</sup>
	C3-Naphthalenes	51800000	30800000	51* <sup>b</sup>	30 <sup>c</sup>
	C4-Naphthalenes	14800000	8960000	49* <sup>b</sup>	30 <sup>c</sup>
92-52-4	Biphenyl	27300000	14700000	60* <sup>b</sup>	30 <sup>c</sup>
208-96-8	Acenaphthylene	25200000	17600000	36* <sup>b</sup>	30
83-32-9	Acenaphthene	102000000	56700000	57* <sup>b</sup>	30
132-64-9	Dibenzofuran	9390000	5330000	55* <sup>b</sup>	30
86-73-7	Fluorene	48300000	27400000	55* <sup>b</sup>	30
	C1-Fluorenes	23600000	14100000	50* <sup>b</sup>	30 <sup>c</sup>

\* = Outside of Control Limits.



**Duplicate Summary**

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-DUP1	S34120.D	10	11/20/13	RP	11/19/13	OP35834	MSS1523
MC26103-1 <sup>a</sup>	S34121.D	10	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	MC26103-1 DUP		RPD	Limits
		ug/kg	Q		
	C2-Fluorenes	13900000		8690000	46* <sup>b</sup> 30 <sup>c</sup>
	C3-Fluorenes	6710000		4790000	33* <sup>b</sup> 30 <sup>c</sup>
132-65-0	Dibenzothiophene	28500000		17100000	50* <sup>b</sup> 30 <sup>c</sup>
	C1-Dibenzothiophenes	26300000		16600000	45* <sup>b</sup> 30 <sup>c</sup>
	C2-Dibenzothiophenes	16100000		10500000	42* <sup>b</sup> 30 <sup>c</sup>
	C3-Dibenzothiophenes	6760000		4510000	40* <sup>b</sup> 30 <sup>c</sup>
	C4-Dibenzothiophenes	1670000		1300000	25 30 <sup>c</sup>
85-01-8	Phenanthrene	179000000		109000000	49* <sup>b</sup> 30
120-12-7	Anthracene	53200000		31900000	50* <sup>b</sup> 30
	C1-Phenanthrenes/Anthracene	90900000		56500000	47* <sup>b</sup> 30 <sup>c</sup>
	C2-Phenanthrenes/Anthracene	33900000		22100000	42* <sup>b</sup> 30 <sup>c</sup>
	C3-Phenanthrenes/Anthracene	9630000		6430000	40* <sup>b</sup> 30 <sup>c</sup>
	C4-Phenanthrenes/Anthracene	2610000		2000000	26 30 <sup>c</sup>
483-65-8	Retene	1020000		1150000	12 30 <sup>c</sup>
239-35-0	Benzo(b)naphtho(2,1-d)thioph	4680000		3150000	39* <sup>b</sup> 30 <sup>c</sup>
206-44-0	Fluoranthene	53200000		34700000	42* <sup>b</sup> 30
129-00-0	Pyrene	87800000		58400000	40* <sup>b</sup> 30
	C1-Fluoranthenes/Pyrenes	45700000		30000000	41* <sup>b</sup> 30 <sup>c</sup>
	C2-Fluoranthenes/Pyrenes	11500000		7710000	39* <sup>b</sup> 30 <sup>c</sup>
	C3-Fluoranthenes/Pyrenes	2630000		2230000	16 30 <sup>c</sup>
243-17-4	Benzo(b)fluorene	3540000		1910000	60* <sup>b</sup> 30 <sup>c</sup>
205-12-9	Benzo(c)fluorene	2140000		1420000	40* <sup>b</sup> 30 <sup>c</sup>
3442-78-2	2-Methylpyrene	6480000		4350000	39* <sup>b</sup> 30 <sup>c</sup>
3353-12-6	4-Methylpyrene	5760000		3740000	43* <sup>b</sup> 30 <sup>c</sup>
2381-21-7	1-Methylpyrene	5610000		3760000	39* <sup>b</sup> 30 <sup>c</sup>
56-55-3	Benzo(a)anthracene	22200000		14200000	44* <sup>b</sup> 30
218-01-9	Chrysene	22000000		14800000	39* <sup>b</sup> 30
	C1-Benzo(a)anthracenes/Chrys	10300000		6890000	40* <sup>b</sup> 30 <sup>c</sup>
	C2-Benzo(a)anthracenes/Chrys	4160000		3070000	30 30 <sup>c</sup>
	C3-Benzo(a)anthracenes/Chrys	ND		ND	nc 30 <sup>c</sup>
	C4-Benzo(a)anthracenes/Chrys	ND		ND	nc 30 <sup>c</sup>
205-99-2	Benzo(b)fluoranthene	8440000		5580000	41* <sup>b</sup> 30
207-08-9	Benzo(k)fluoranthene	12200000		8280000	38* <sup>b</sup> 30
192-97-2	Benzo(e)pyrene	11700000		8010000	37* <sup>b</sup> 30 <sup>c</sup>
50-32-8	Benzo(a)pyrene	21800000		14200000	42* <sup>b</sup> 30
198-55-0	Perylene	2850000		2070000	32* <sup>b</sup> 30 <sup>c</sup>

\* = Outside of Control Limits.

## Duplicate Summary

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35834-DUP1	S34120.D	10	11/20/13	RP	11/19/13	OP35834	MSS1523
MC26103-1 <sup>a</sup>	S34121.D	10	11/20/13	RP	11/19/13	OP35834	MSS1523

The QC reported here applies to the following samples:

Method: D5739-06/8270C SIM

MC26103-1

CAS No.	Compound	MC26103-1 DUP		RPD	Limits
		ug/kg	Q		
193-39-5	Indeno(1,2,3-cd)pyrene	7000000	4830000	37* <sup>b</sup>	30
53-70-3	Dibenzo(a,h)anthracene	2040000	1590000	25	30
191-24-2	Benzo(g,h,i)perylene	9150000	6310000	37* <sup>b</sup>	30
191-07-1	Coronene	2100000	1420000	39* <sup>b</sup>	30 <sup>c</sup>

CAS No.	Surrogate Recoveries	DUP	MC26103-1	Limits
2037-26-5	Toluene-D8	82%	85%	40-140%
1146-65-2	Naphthalene-d8	73%	76%	40-140%
1517-22-2	Phenanthrene-d10	69%	70%	40-140%
	Perylene-d12	66%	58%	40-140%

(a) Sample extracted beyond the recommended holding time for soils.

(b) High RPD due to possible sample heterogeneity.

(c) Advisory control limits.

\* = Outside of Control Limits.

## Semivolatile Surrogate Recovery Summary

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

<b>Method:</b> D5739-06/8270C SIM	<b>Matrix:</b> SO
-----------------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
MC26103-1	S34121.D	85.0	76.0	70.0	58.0
OP35834-BS2	S34117.D	102.0	95.0	93.0	79.0
OP35834-DUP1	S34120.D	82.0	73.0	69.0	66.0
OP35834-MB	S34116.D	108.0	90.0	88.0	88.0

Surrogate Compounds	Recovery Limits
---------------------	-----------------

<b>S1</b> = Toluene-D8	40-140%
<b>S2</b> = Naphthalene-d8	40-140%
<b>S3</b> = Phenanthrene-d10	40-140%
<b>S4</b> = Perylene-d12	40-140%



GC/MS Semi-volatiles

---

Raw Data

---

7

Data Path : Z:\1\data\S131120\  
 Data File : S34121.D  
 Acq On : 20 Nov 2013 7:05 pm  
 Operator : RUBENP  
 Sample : mc26103-1  
 Misc : op35834,mss1523,0.0011,,,10,10  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 09:29:26 2013  
 Quant Method : Z:\1\methods\S131114-MAHPAHEXT.M  
 Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM  
 QLast Update : Fri Nov 15 10:17:28 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Acenaphthene-d10	28.158	164	120191	1100.00	ng/mL	0.00	
System Monitoring Compounds							
2) Toluene-d8	9.307	98	9456	84.93	µg/mL	0.00	
Spiked Amount	1000.000		Recovery	=	8.49%		
3) Naphthalene-d8	21.209	136	15849	76.25	ng/mL	0.00	
Spiked Amount	1000.000	Range 1 - 0	Recovery	=	7.63%#		
4) Phenanthrene-d10	33.992	188	13833	69.53	ng/mL	0.00	
Spiked Amount	1000.000		Recovery	=	6.95%		
5) Perylene-d12	49.822	264	10085	58.06	ng/mL	-0.01	
Spiked Amount	1000.000		Recovery	=	5.81%		
Target Compounds							
							Qvalue
7) Benzene	6.865	78	14211	119.487	µg/mL		96
8) C1-Benzene	9.415	92	2073	17.430	µg/mL		97
9) C2-Benzenes	12.152	106	94637m	795.712	µg/mL		
10) C3-Benzenes	16.035	120	108018m	908.220	µg/mL		
11) C4-Benzenes	19.528	134	56594m	475.845	µg/mL		
12) C5-Benzenes	20.097	148	16710m	140.498	µg/mL		
14) Toluene	9.415	91	3708	24.070	µg/mL		98
15) Ethylbenzene	12.152	91	120813	608.249	µg/mL		97
16) m,p-xylene	12.383	91	93177	580.275	µg/mL		98
17) Styrene	13.031	104	14443	124.221	µg/mL		98
18) o-Xylene	13.096	91	41864	261.337	µg/mL		97
19) Isopropylbenzene	14.025	105	13102	73.218	µg/mL		100
20) n-Propylbenzene	14.882	91	6330	26.872	µg/mL		96
21) 1,3,5-Trimethylbenzene	15.300	105	25275	145.739	µg/mL		100
22) t-Butylbenzene	16.035	119	10280	59.123	µg/mL#		55
23) 1,2,4-Trimethylbenzene	16.035	105	79015	449.801	µg/mL		97
24) sec-Butylbenzene	16.525	105	594	2.786	µg/mL#		57
25) 1,2,3-Trimethylbenzene	16.877	105	27598	148.973	µg/mL		99
26) p-Isopropyltoluene	16.892	119	15318	74.127	µg/mL		93
27) n-Butylbenzene	17.771	91	2993	16.278	µg/mL#		1
34) Benzo(b)thiophene	21.506	134	59298	292.581	µg/mL		99
35) C1-Benzo(b)thiophenes	23.849	148	50004m	246.723	µg/mL		
36) C2-Benzo(b)thiophenes	26.538	162	43026m	212.293	µg/mL		
37) C3-Benzo(b)thiophenes	28.640	176	16346m	80.652	µg/mL		
38) C4-Benzo(b)thiophenes	31.092	190	7227m	35.659	µg/mL		
44) Naphthalene	21.284	128	2033676	8188.789	ng/mL		100
45) 2-Methylnaphthalene	23.989	142	558449	3407.199	ng/mL		100
46) 1-Methylnaphthalene	24.401	142	343419	2145.763	ng/mL		100
47) C1-Naphthalenes	23.989	142	905257m	3645.103	ng/mL		
48) C2-Naphthalenes	26.818	156	424526m	1709.394	ng/mL		
49) C3-Naphthalenes	29.158	170	141598m	570.158	ng/mL		
50) C4-Naphthalenes	31.918	184	40532m	163.206	ng/mL		
51) Biphenyl	25.886	154	66901	300.246	µg/mL		100
52) Acenaphthylene	27.544	152	64940	276.928	ng/mL		95
53) Acenaphthene	28.280	154	159791	1120.237	ng/mL		99
54) Dibenzofuran	28.935	168	22453	103.239	ng/mL		99
55) Fluorene	30.292	166	91616	530.858	ng/mL		100
56) C1-Fluorenes	32.520	180	44887m	260.092	ng/mL		
57) C2-Fluorenes	34.703	194	26382m	152.867	ng/mL		
58) C3-Fluorenes	36.685	208	12737m	73.803	ng/mL		
59) Dibenzothiophene	33.589	184	76682	313.116	ng/mL#		83
60) C1-Dibenzothiophenes (...)	35.364	198	72602m	296.456	ng/mL		
61) C1-Dibenzothiophenes (...)	35.800	198	1669m	6.815	µg/mL		
62) C2-Dibenzothiophenes	37.410	212	43395m	177.195	ng/mL		
63) C3-Dibenzothiophenes	38.859	226	18216m	74.382	ng/mL		
64) C4-Dibenzothiophenes	40.558	240	4491m	18.338	ng/mL		
65) Phenanthrene	34.082	178	493163	1971.726	ng/mL		100
66) Anthracene	34.261	178	132394	585.517	ng/mL		99
67) C1-Phenanthrenes/anthr...	36.153	192	250005m	999.551	ng/mL		

7.1.1  
7

Data Path : Z:\1\data\S131120\  
 Data File : S34121.D  
 Acq On : 20 Nov 2013 7:05 pm  
 Operator : RUBENP  
 Sample : mc26103-1  
 Misc : op35834,mss1523,0.0011,,,10,10  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 21 09:29:26 2013  
 Quant Method : Z:\1\methods\S131114-MAHPAHEXT.M  
 Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM  
 QLast Update : Fri Nov 15 10:17:28 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) C2-Phenanthrenes/anthr...	38.320	206	93851m	375.228	ng/mL	
69) C2-Phenanthrenes/anthr...	37.942	206	470m	1.879	µg/mL	
70) C3-Phenanthrenes/anthr...	40.164	220	26487m	105.898	ng/mL	
71) C4-Phenanthrenes/anthr...	41.093	234	7176m	28.691	ng/mL	
72) Retene	41.093	234	396	11.230	µg/mL	99
73) Benzo(b)naphtho(2,1-d)...	43.563	234	11879	51.519	µg/mL	100
74) C1-Benzonaphthothiophenes	44.970	248	12772m	55.392	ng/mL	
75) C2-Benzonaphthothiophenes	46.480	262	5127m	22.236	µg/mL	
76) C3-Benzonaphthothiophenes	48.213	276	2883m	12.504	µg/mL	
78) Fluoranthene	38.841	202	151671	585.291	ng/mL	98
79) Pyrene	39.711	202	254706	966.243	ng/mL	98
80) C1-Fluoranthenes/pyrenes	41.117	216	132561m	502.878	ng/mL	
81) Benzo(b)fluorene	41.364	216	10264m	38.937	ng/mL	
82) Benzo(c)fluorene	41.405	216	6209	23.554	µg/mL#	1
83) 2-Methylpyrene	41.511	216	18795	71.300	ng/mL#	57
84) 4-Methylpyrene	41.875	216	16702m	63.360	ng/mL	
85) 1-Methylpyrene	41.987	216	16268m	61.714	ng/mL	
86) C2-Fluoranthenes/pyrenes	42.799	230	33370m	126.591	ng/mL	
87) C3-Fluoranthenes/pyrenes	45.057	244	7637m	28.971	ng/mL	
88) Benz(a)anthracene	44.496	228	54738m	244.165	ng/mL	
89) Chrysene	44.657	228	51902	242.378	ng/mL	100
90) C1-Benz(a)anthracenes/...	46.146	242	24173m	112.886	ng/mL	
91) C2-Benz(a)anthracenes/...	47.855	256	9795m	45.742	ng/mL	
94) Benzo(b)fluoranthene	48.534	252	22478	92.879	ng/mL	99
95) Benzo(k)fluoranthene	48.596	252	33226	133.898	ng/mL	96
96) Benzo(e)pyrene	49.462	252	29034	128.200	ng/mL	99
97) Benzo(a)pyrene	49.631	252	50241	239.760	ng/mL	99
98) Perylene	49.901	252	6459	31.385	ng/mL	99
99) Indeno(1,2,3-cd)pyrene	53.163	276	19394m	77.053	ng/mL	
100) Dibenz(a,h)anthracene	53.201	278	5487	22.421	ng/mL#	59
101) Benzo(g,h,i)perylene	53.978	276	26489	100.628	ng/mL	100
102) Coronene	59.847	300	5929	23.124	µg/mL#	86
103) C-17	31.989	85	131m	2.654	µg/mL	
104) Pristane	32.123	85	1101	29.196	µg/mL#	60
105) C-18	33.800	85	160m	3.196	µg/mL	
106) Phytane	33.992	85	773	14.341	µg/mL#	64
107) 2,6,10-Trimethyldodeca...	25.490	85	973	18.051	µg/mL#	61
108) 2,6,10-Trimethyltridec...	27.329	85	1253	23.245	µg/mL	99
109) 2,6,10-Trimethylpentad...	31.054	85	805m	14.934	µg/mL	

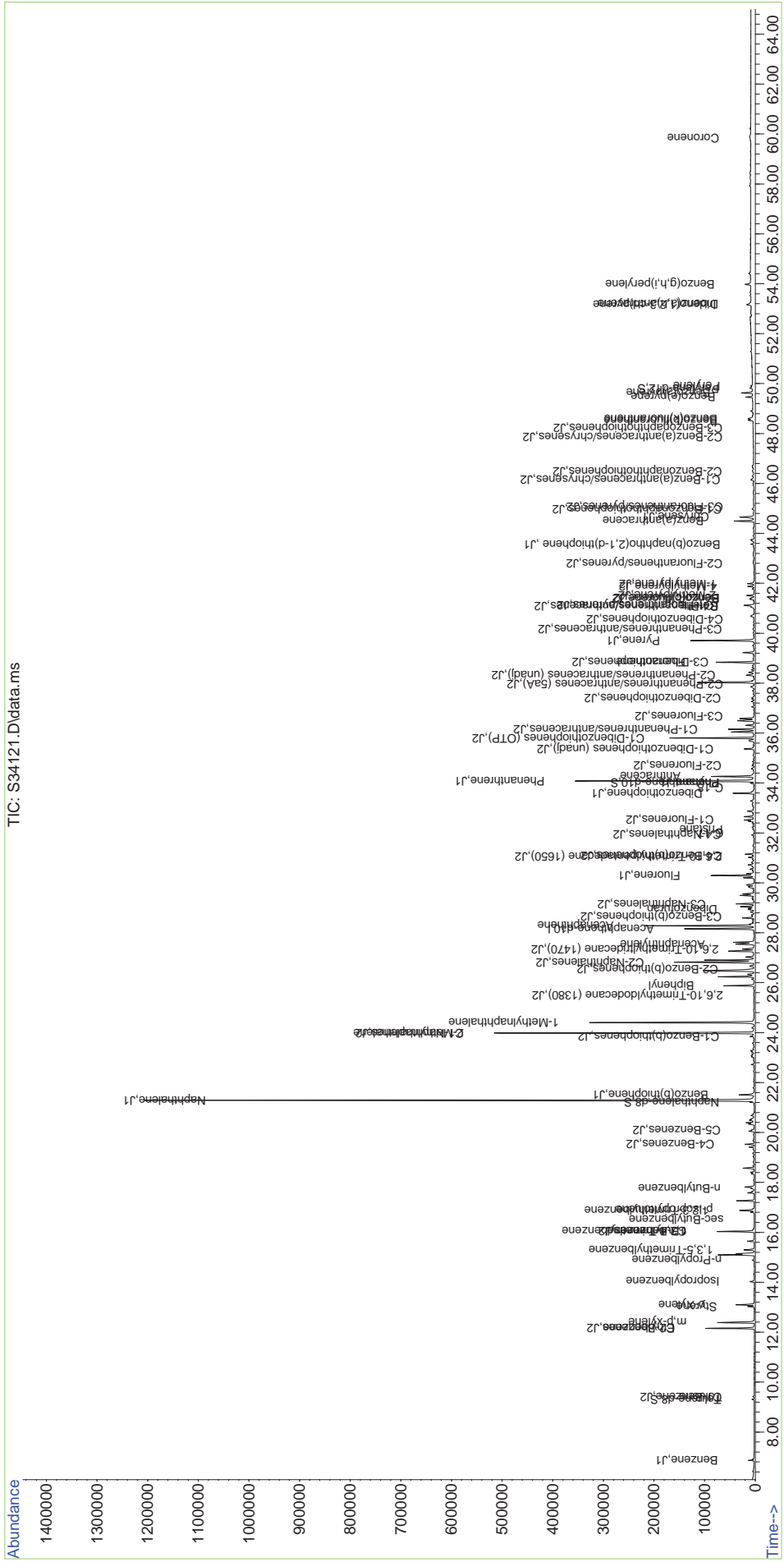
(#) = qualifier out of range (m) = manual integration (+) = signals summed

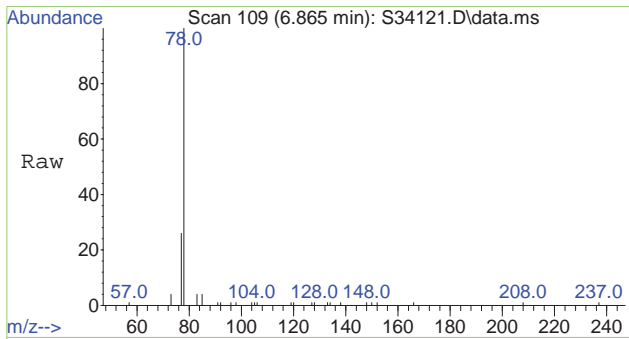
7.1.1  
7

Quantitation Report (QT Reviewed)

Data Path : Z:\1\data\S131120\  
 Data File : S34121.D  
 Acq On : 20 Nov 2013 7:05 pm  
 Operator : RUBENP  
 Sample : mc26103-1  
 Misc : op35834,mss1523,0.0011,,10,10  
 ALS Vial : 8 Sample Multiplier: 1

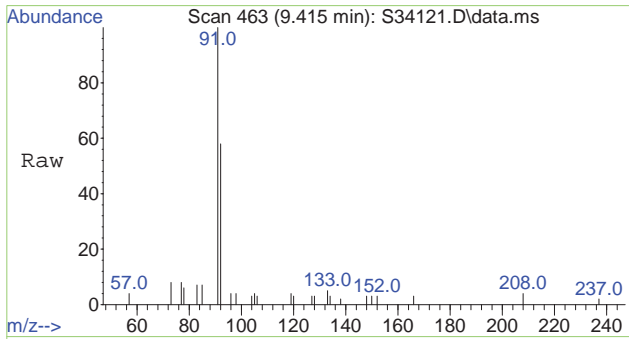
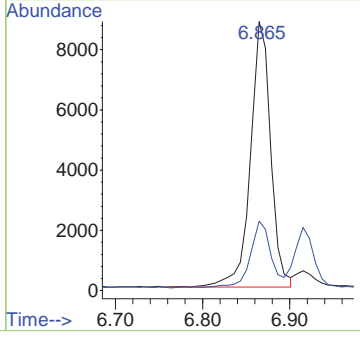
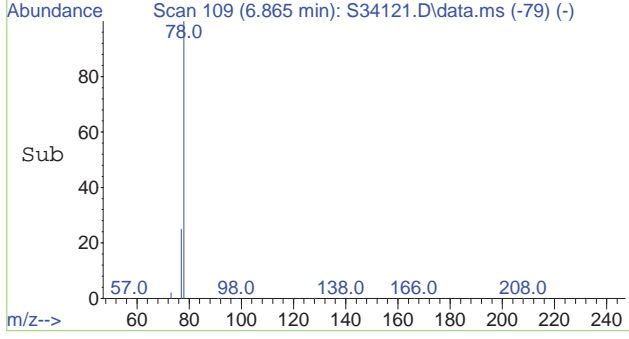
Quant Time: Nov 21 09:29:26 2013  
 Quant Method : Z:\1\methods\S131114-MAHPAHEXT.M  
 Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM  
 QLast Update : Fri Nov 15 10:17:28 2013  
 Response via : Initial Calibration





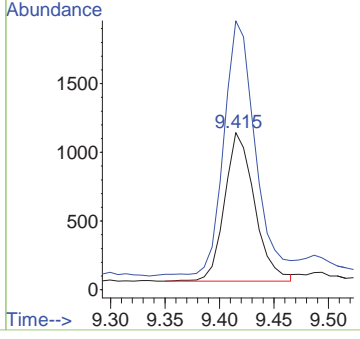
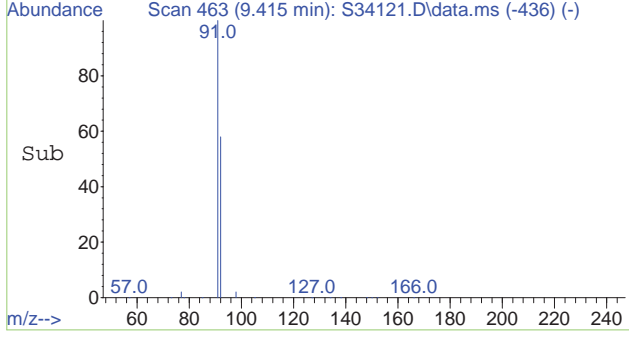
#7  
Benzene  
Concen: 119.487 µg/mL  
RT: 6.865 min Scan# 109  
Delta R.T. 0.014 min  
Lab File: S34121.D  
Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
78	100		
77	26.2	19.5	29.3



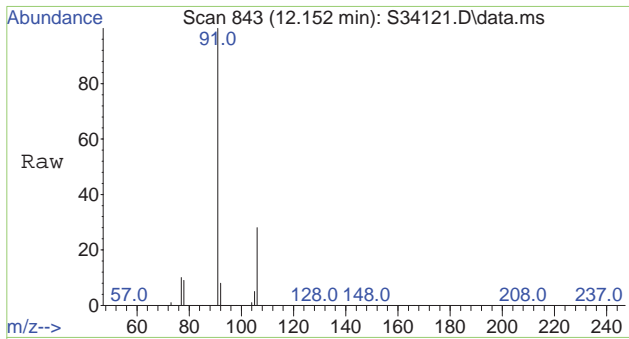
#8  
Cl-Benzene  
Concen: 17.430 µg/mL  
RT: 9.415 min Scan# 463  
Delta R.T. -0.007 min  
Lab File: S34121.D  
Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
92	100		
91	178.9	140.2	210.2



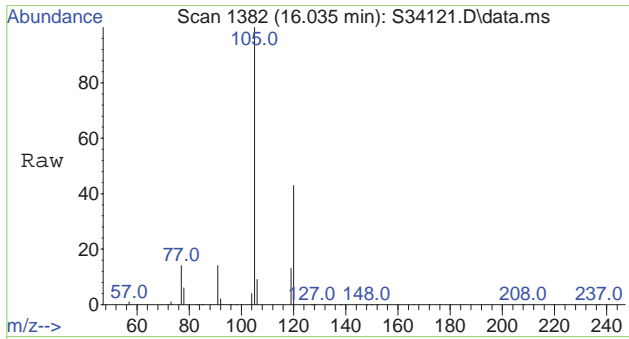
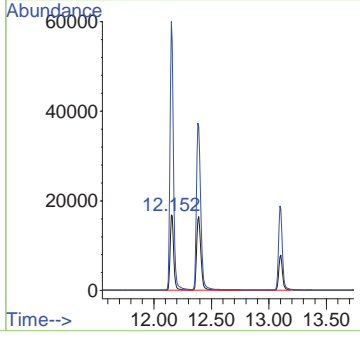
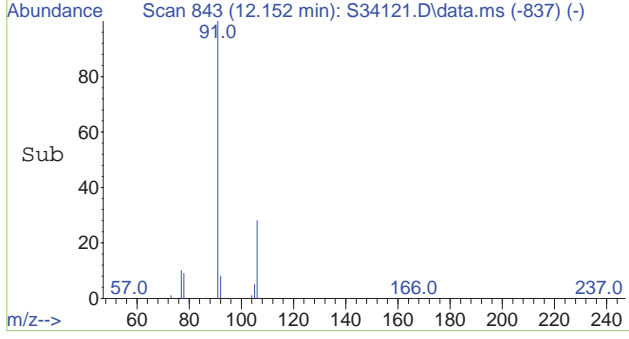
7.1.1  
7





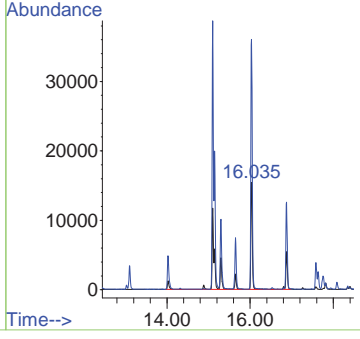
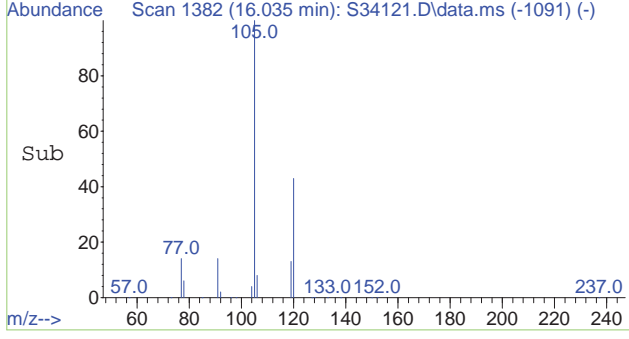
#9  
 C2-Benzenes  
 Concen: 795.712 µg/mL m  
 RT: 12.152 min Scan# 843  
 Delta R.T. -0.966 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	43.5	184.5	276.7#

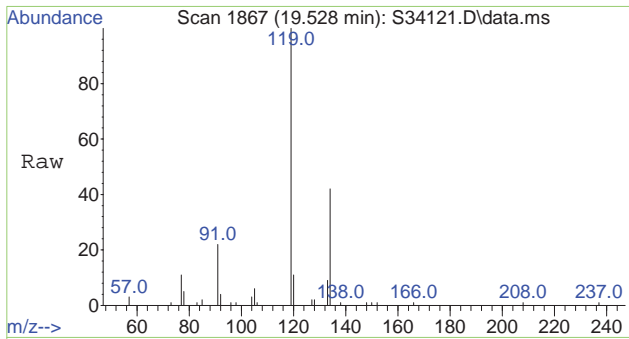


#10  
 C3-Benzenes  
 Concen: 908.220 µg/mL m  
 RT: 16.035 min Scan# 1382  
 Delta R.T. -0.852 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
120	100		
105	25.2	183.8	275.6#

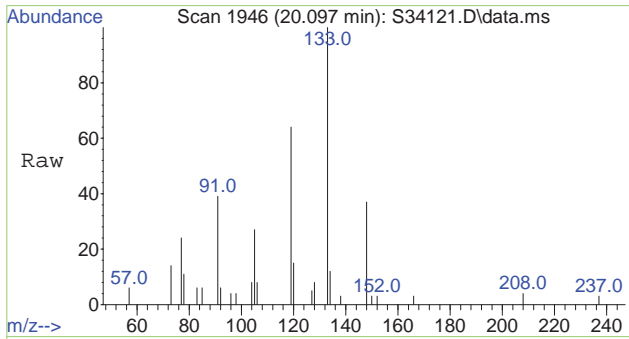
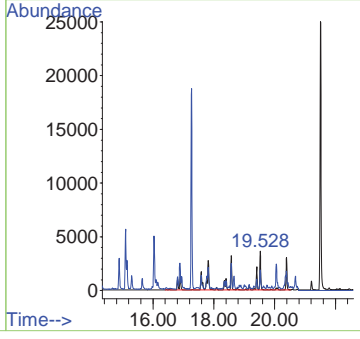
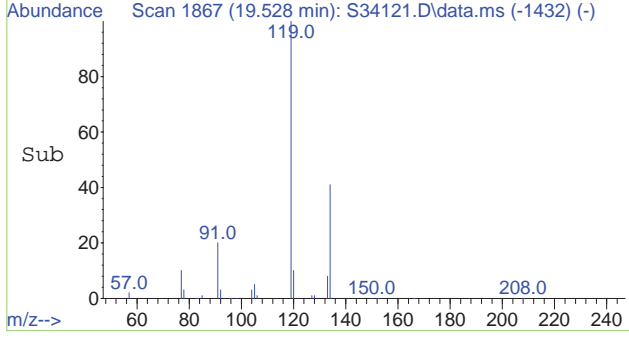


7.1.1  
7



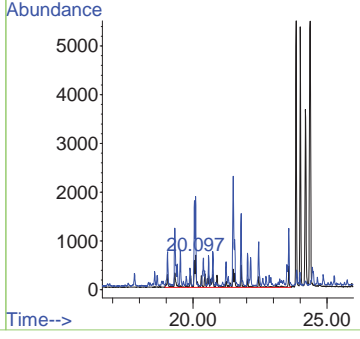
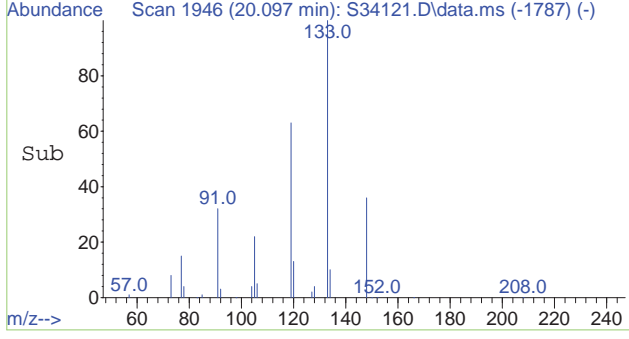
#11  
 C4-Benzenes  
 Concen: 475.845 µg/mL m  
 RT: 19.528 min Scan# 1867  
 Delta R.T. -0.965 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	134	Resp:	56594
Ion Ratio	Lower	Upper	
	134	100	
	91	11.4	42.8 64.2#

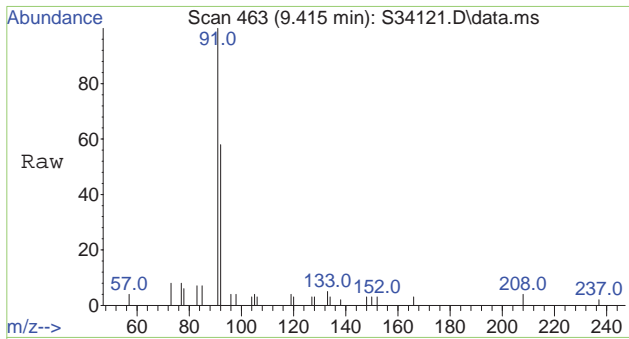


#12  
 C5-Benzenes  
 Concen: 140.498 µg/mL m  
 RT: 20.097 min Scan# 1946  
 Delta R.T. -0.098 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	148	Resp:	16710
Ion Ratio	Lower	Upper	
	148	100	
	133	0.0	151.0 226.4#

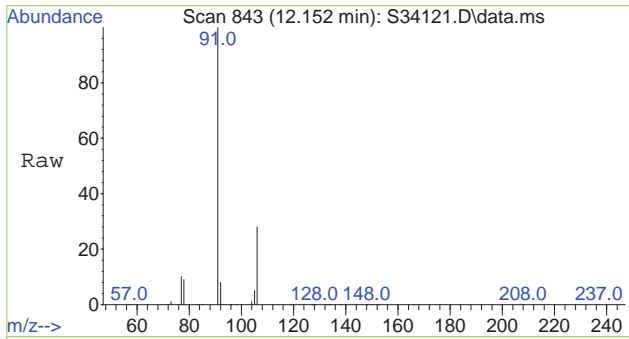
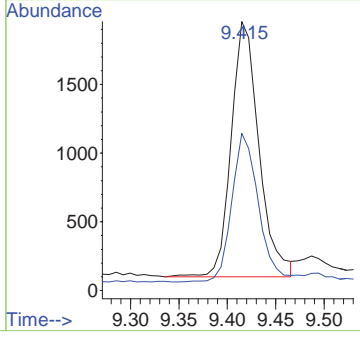
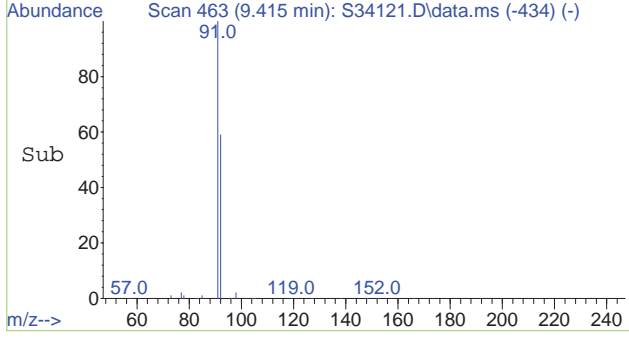


7.1.1  
7



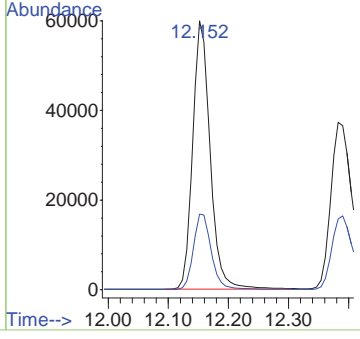
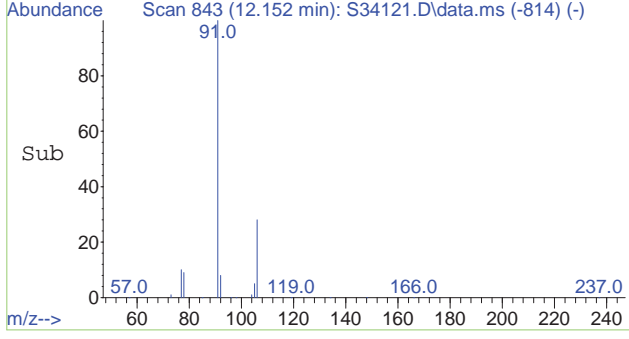
#14  
 Toluene  
 Concen: 24.070 µg/mL  
 RT: 9.415 min Scan# 463  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
91	100		
92	55.9	45.9	68.9

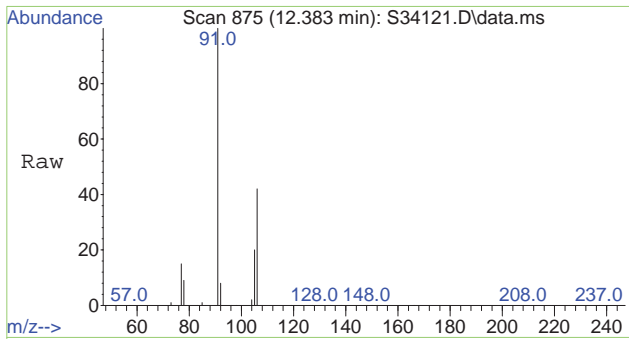


#15  
 Ethylbenzene  
 Concen: 608.249 µg/mL  
 RT: 12.152 min Scan# 843  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
91	100		
106	28.9	21.9	32.9

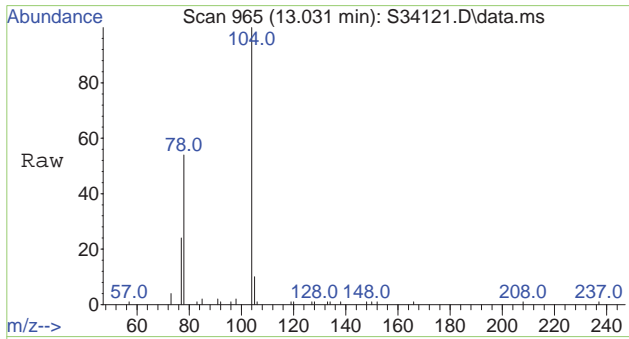
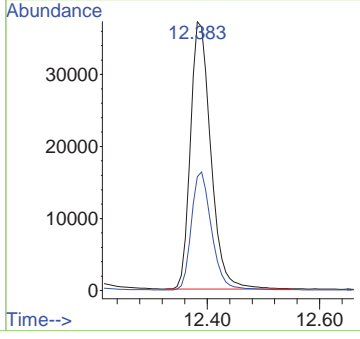
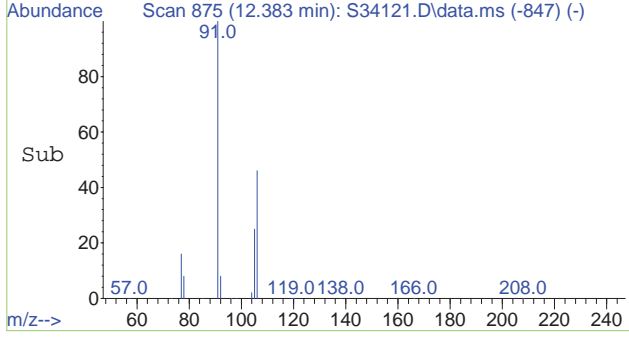


7.1.1  
7



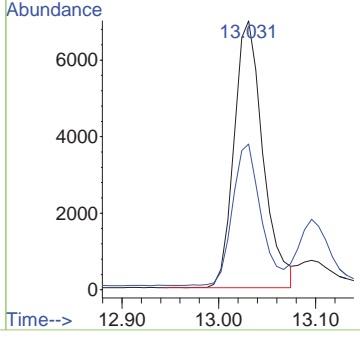
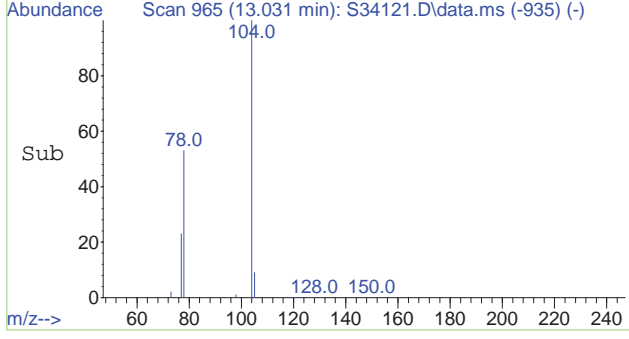
#16  
 m,p-xylene  
 Concen: 580.275 µg/mL  
 RT: 12.383 min Scan# 875  
 Delta R.T. -0.000 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
91	100		
106	43.8	34.1	51.1

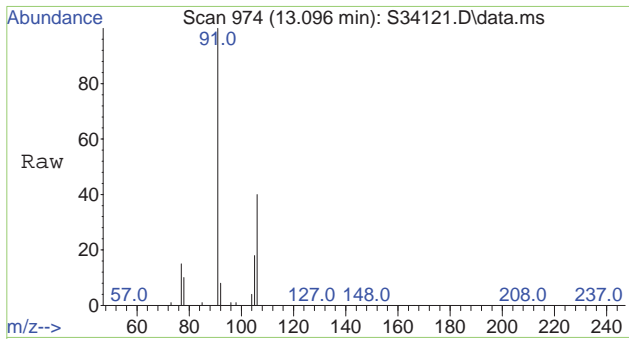


#17  
 Styrene  
 Concen: 124.221 µg/mL  
 RT: 13.031 min Scan# 965  
 Delta R.T. 0.014 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
104	100		
78	52.2	42.7	64.1

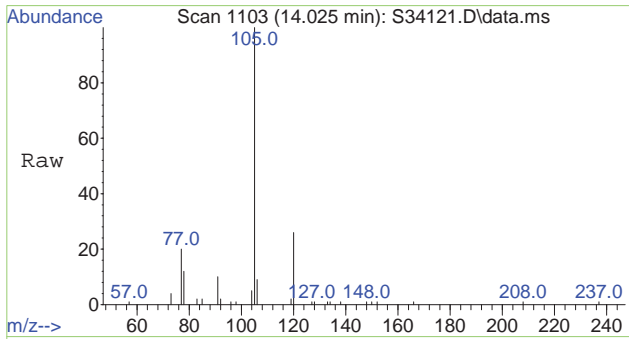
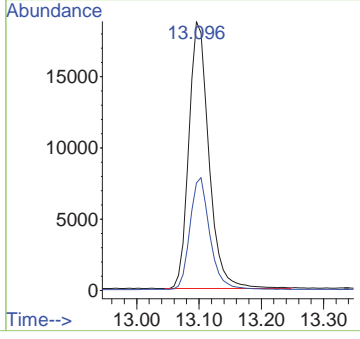
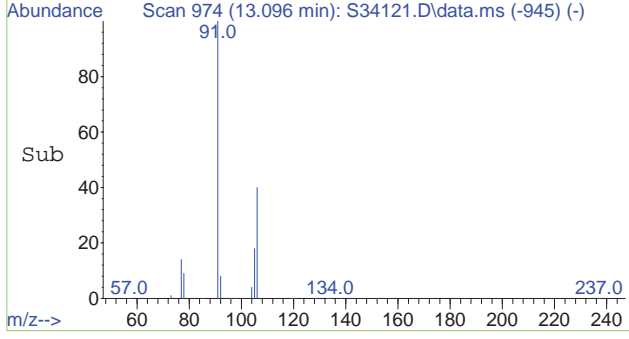


7.1.1  
7



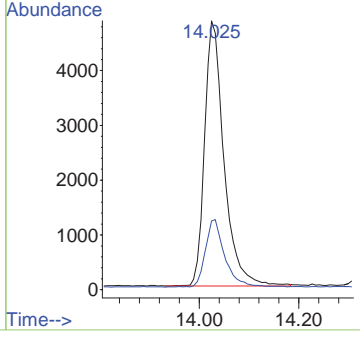
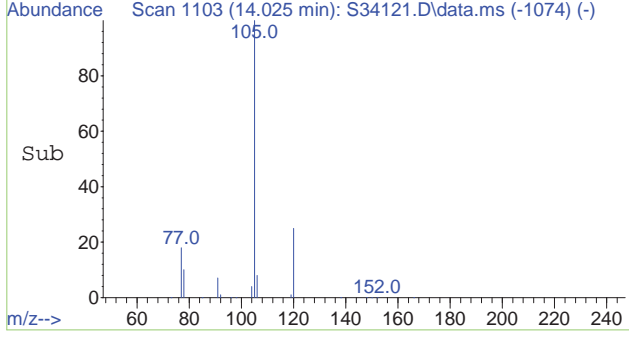
#18  
 o-Xylene  
 Concen: 261.337 µg/mL  
 RT: 13.096 min Scan# 974  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
91	41864	100	
106	41.4	31.8	47.6

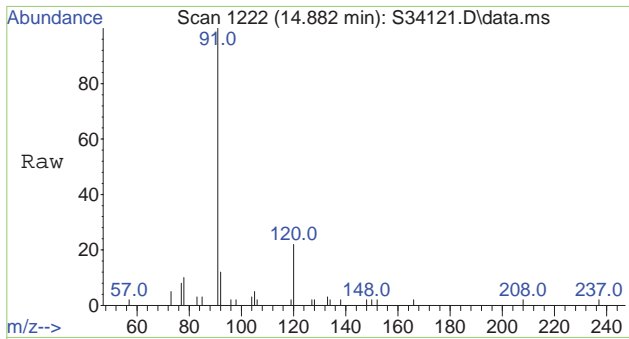


#19  
 Isopropylbenzene  
 Concen: 73.218 µg/mL  
 RT: 14.025 min Scan# 1103  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
105	13102	100	
120	25.6	20.5	30.7

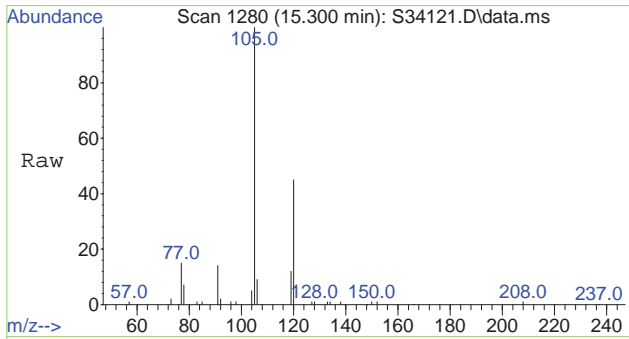
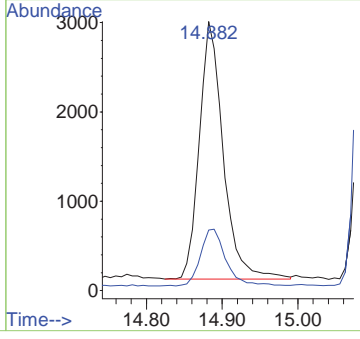
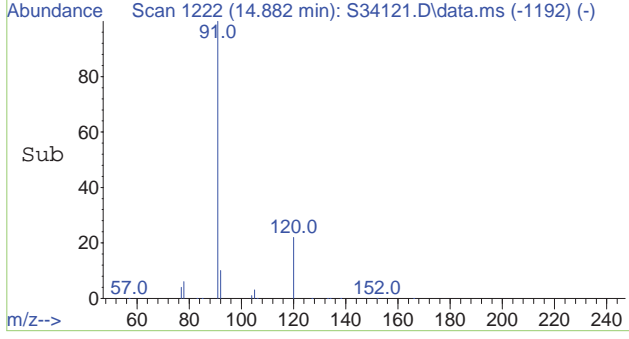


7.1.1  
7



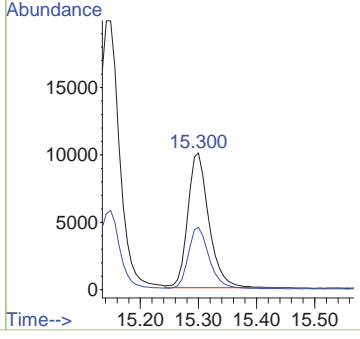
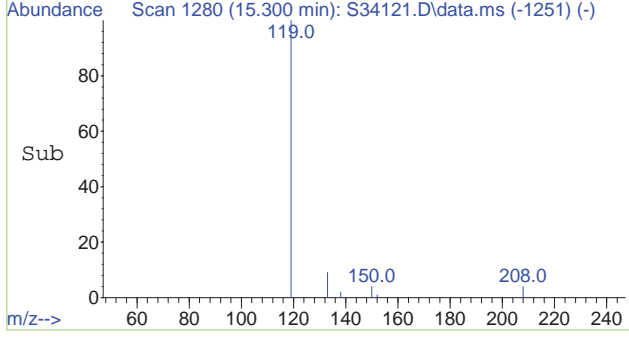
#20  
 n-Propylbenzene  
 Concen: 26.872 µg/mL  
 RT: 14.882 min Scan# 1222  
 Delta R.T. 0.014 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
91	100		
120	23.4	17.1	25.7

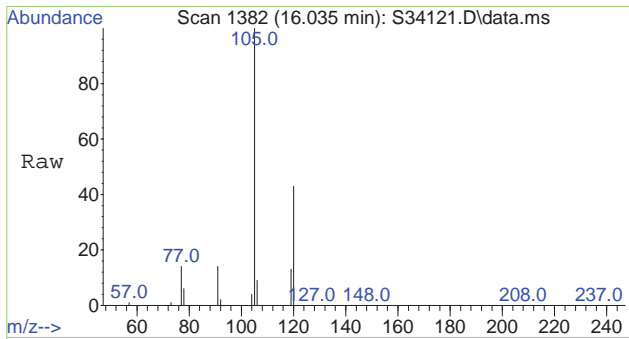


#21  
 1,3,5-Trimethylbenzene  
 Concen: 145.739 µg/mL  
 RT: 15.300 min Scan# 1280  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
105	100		
120	45.3	36.5	54.7

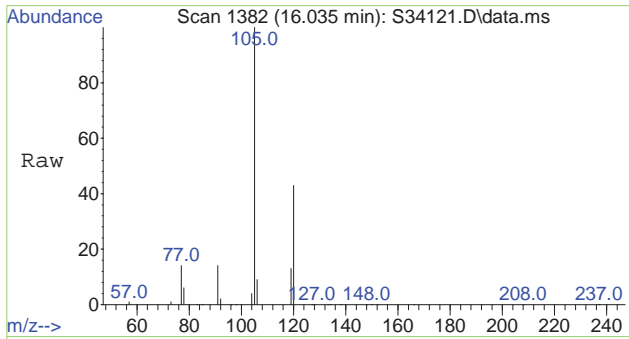
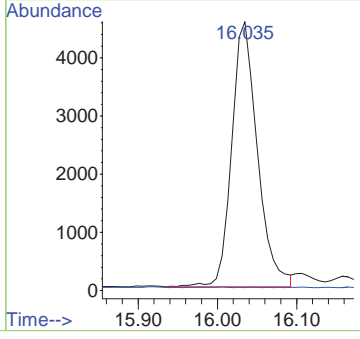
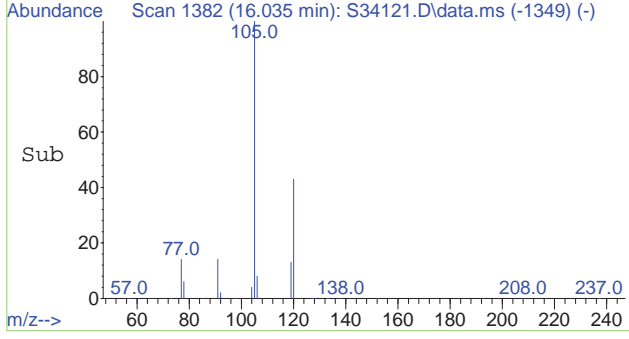


7.1.1  
7



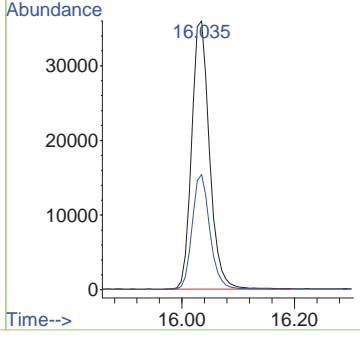
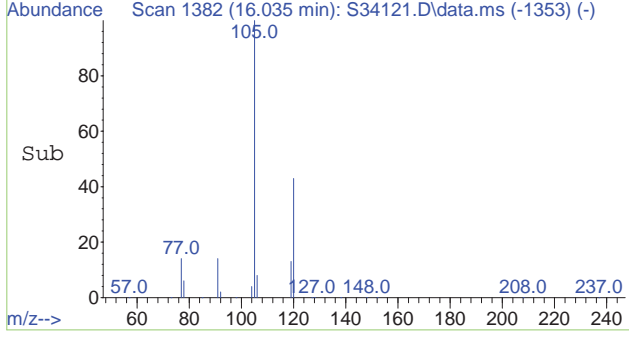
#22  
 t-Butylbenzene  
 Concen: 59.123 µg/mL  
 RT: 16.035 min Scan# 1382  
 Delta R.T. 0.036 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
119	100		
134	0.0	17.0	25.6#

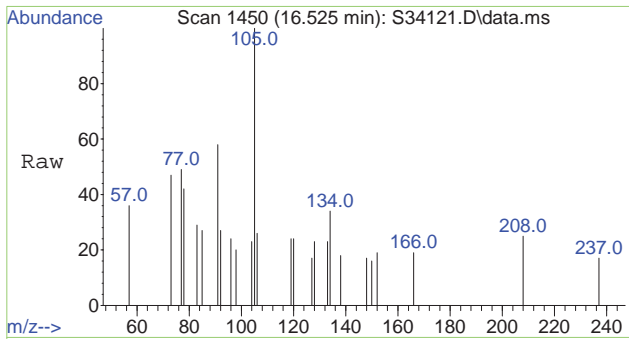


#23  
 1,2,4-Trimethylbenzene  
 Concen: 449.801 µg/mL  
 RT: 16.035 min Scan# 1382  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	42.5	35.4	53.0

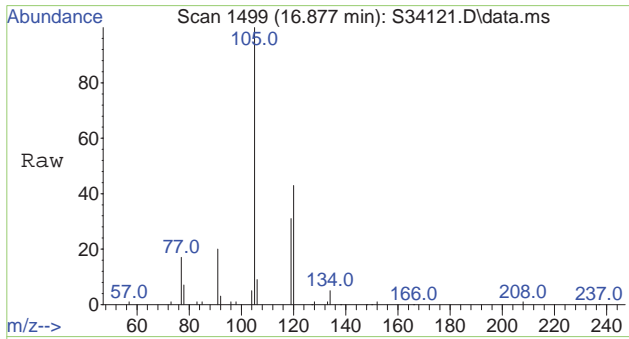
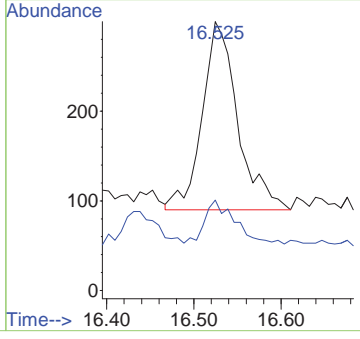
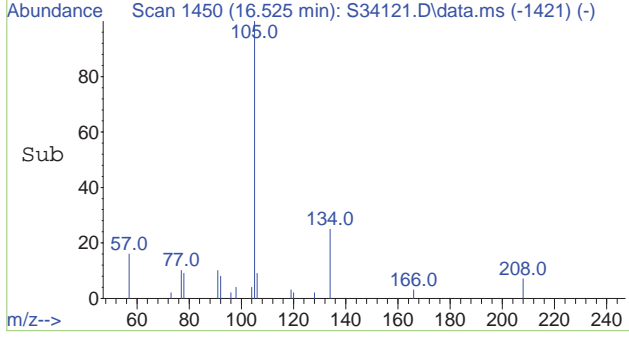


7.1.1  
7



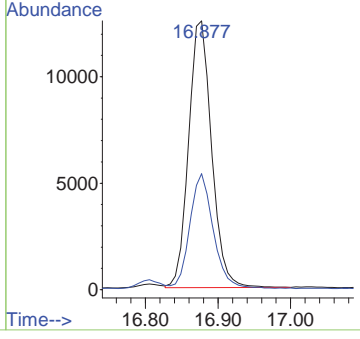
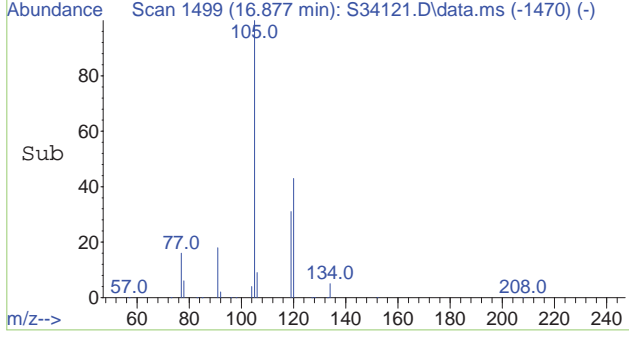
#24  
 sec-Butylbenzene  
 Concen: 2.786 µg/mL  
 RT: 16.525 min Scan# 1450  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
134	0.0	15.8	23.6#



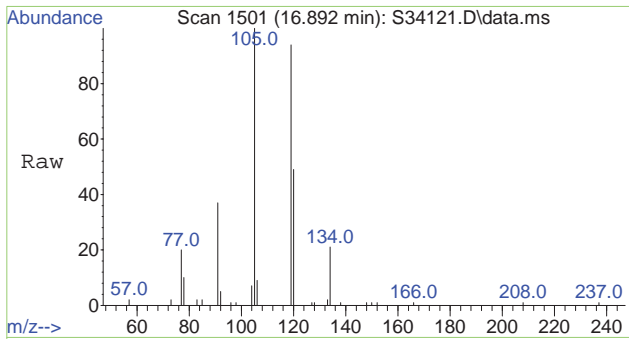
#25  
 1,2,3-Trimethylbenzene  
 Concen: 148.973 µg/mL  
 RT: 16.877 min Scan# 1499  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	43.6	35.4	53.0



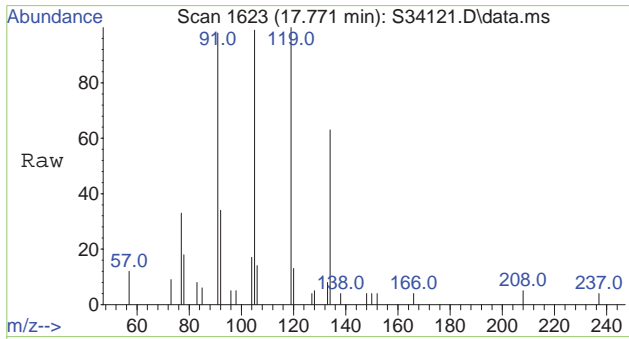
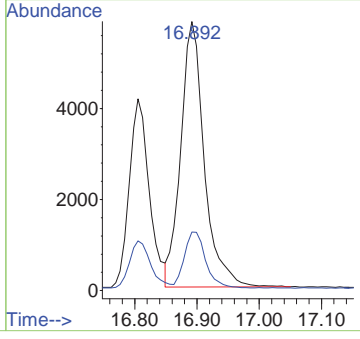
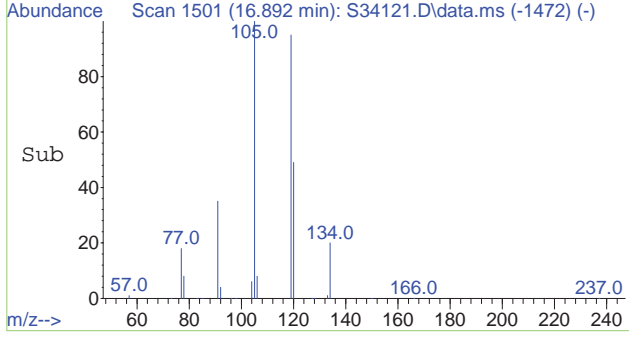
7.1.1  
7





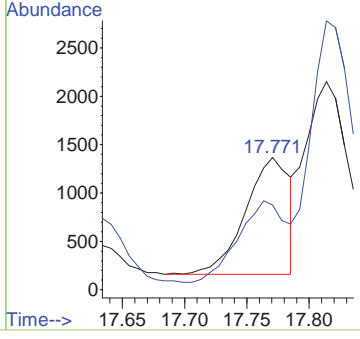
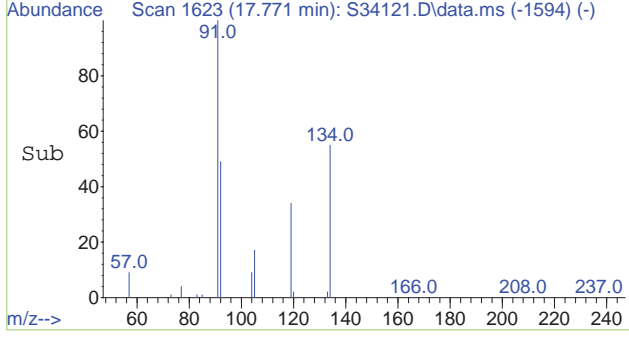
#26  
 p-Isopropyltoluene  
 Concen: 74.127 µg/mL  
 RT: 16.892 min Scan# 1501  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
119	100		
134	19.2	17.8	26.8

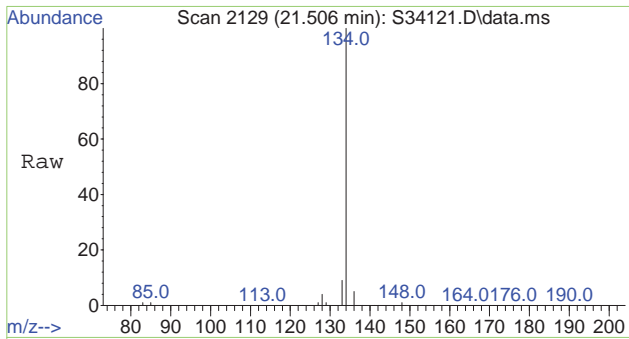


#27  
 n-Butylbenzene  
 Concen: 16.278 µg/mL  
 RT: 17.771 min Scan# 1623  
 Delta R.T. 0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
134	75.4	19.0	28.4#

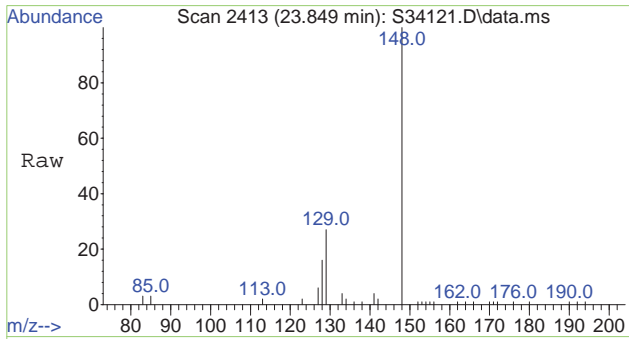
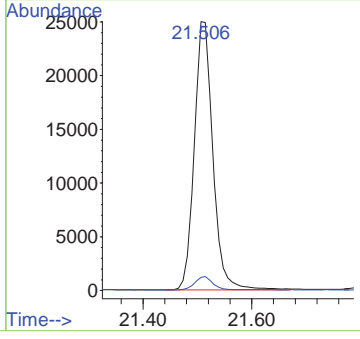
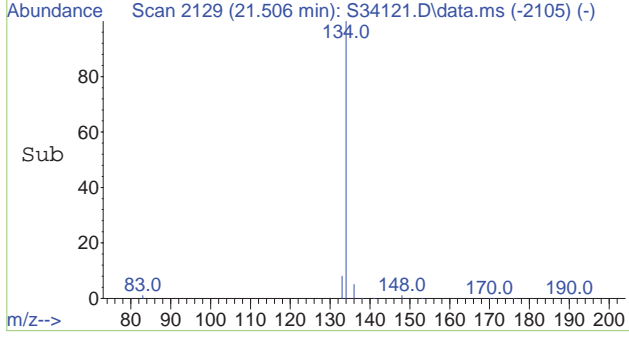


7.1.1  
7



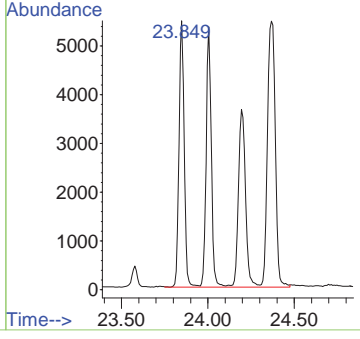
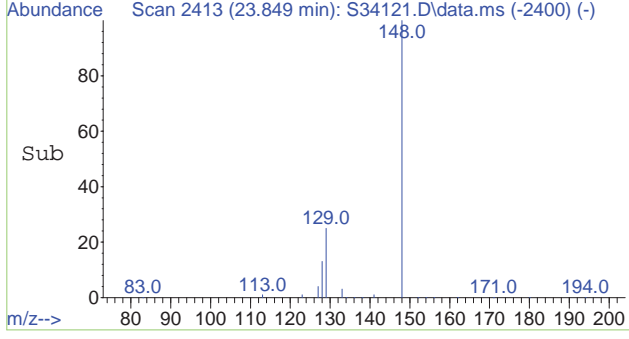
#34  
 Benzo(b)thiophene  
 Concen: 292.581 µg/mL  
 RT: 21.506 min Scan# 2129  
 Delta R.T. -0.000 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	134	Resp:	59298
Ion Ratio	Lower	Upper	
	134	100	
	136	4.7	4.1 6.1

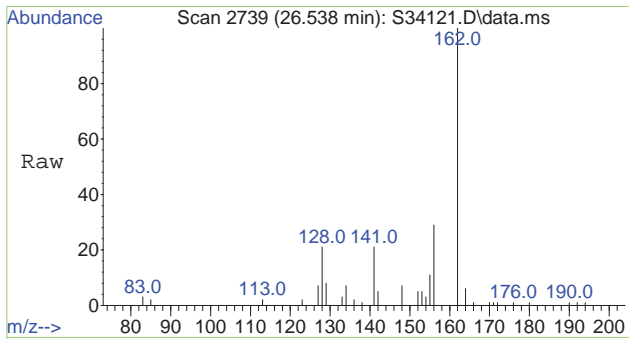


#35  
 Cl-Benzo(b)thiophenes  
 Concen: 246.723 µg/mL m  
 RT: 23.849 min Scan# 2413  
 Delta R.T. -0.011 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

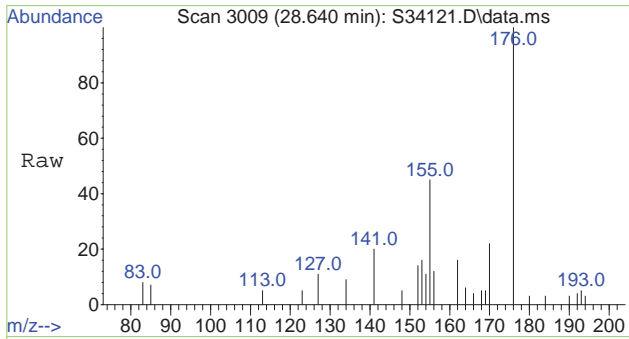
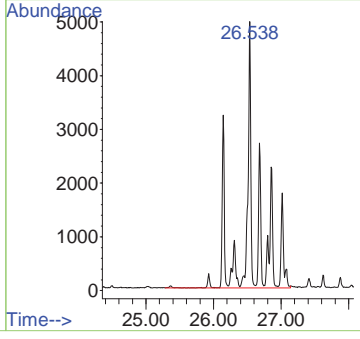
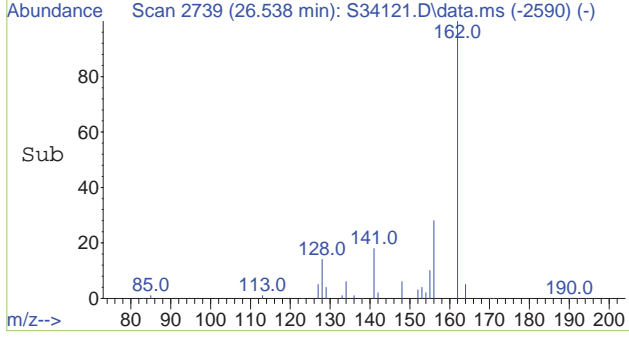
Tgt Ion:148 Resp: 50004



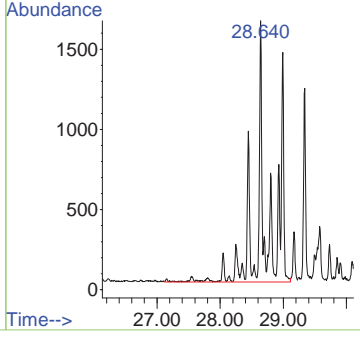
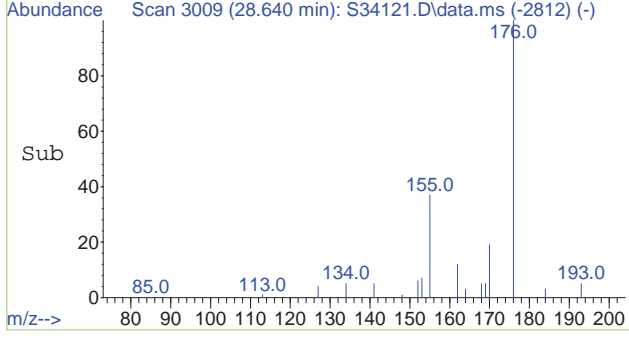
7.1.1  
7



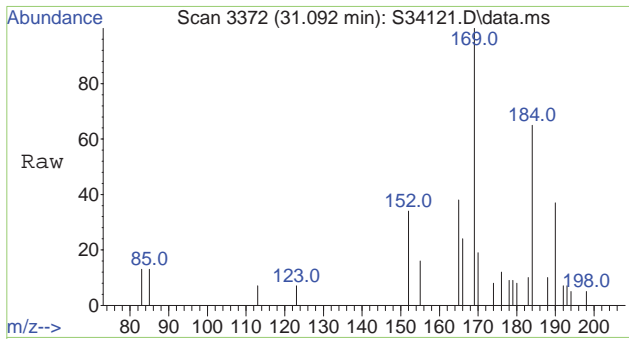
#36  
 C2-Benzo(b)thiophenes  
 Concen: 212.293 µg/mL m  
 RT: 26.538 min Scan# 2739  
 Delta R.T. -0.511 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm  
 Tgt Ion:162 Resp: 43026



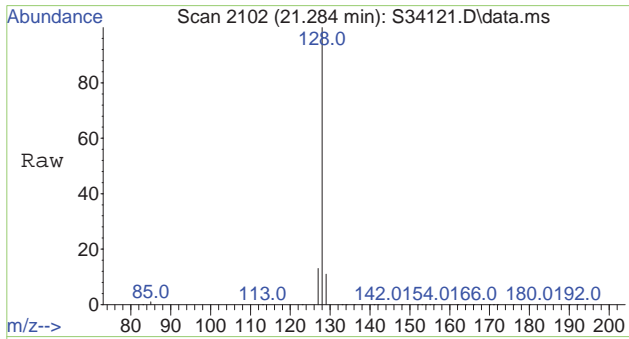
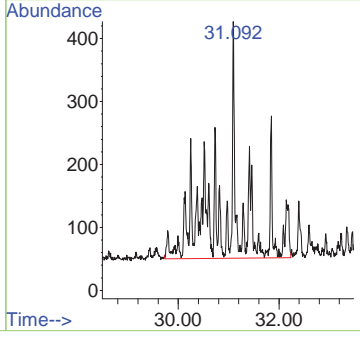
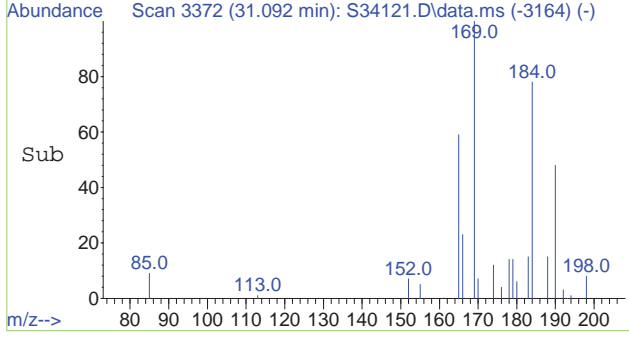
#37  
 C3-Benzo(b)thiophenes  
 Concen: 80.652 µg/mL m  
 RT: 28.640 min Scan# 3009  
 Delta R.T. -0.338 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm  
 Tgt Ion:176 Resp: 16346



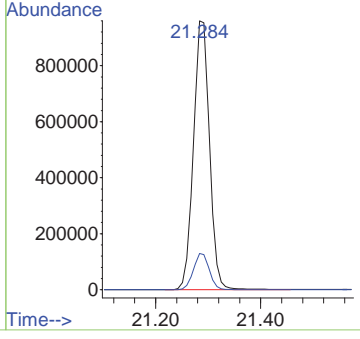
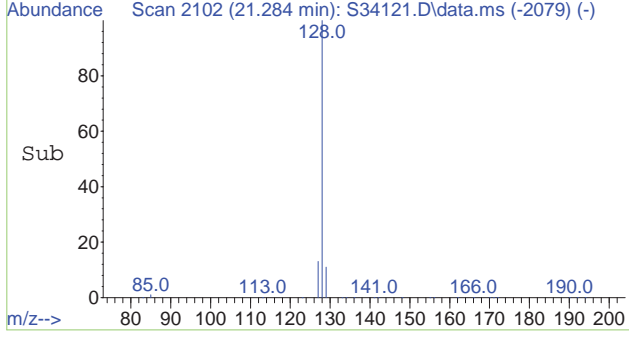
7.1.1  
7



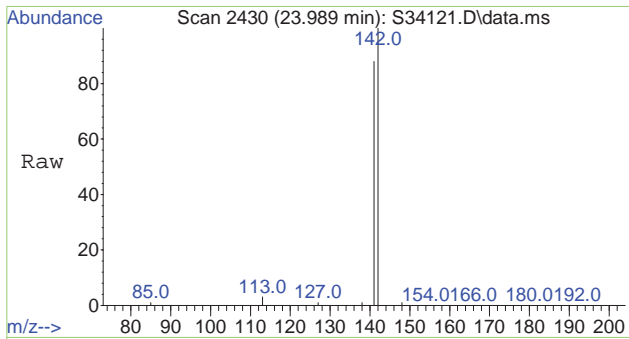
#38  
 C4-Benzo(b)thiophenes  
 Concen: 35.659 µg/mL m  
 RT: 31.092 min Scan# 3372  
 Delta R.T. 0.071 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm  
 Tgt Ion:190 Resp: 7227



#44  
 Naphthalene  
 Concen: 8188.789 ng/mL  
 RT: 21.284 min Scan# 2102  
 Delta R.T. -0.009 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm  
 Tgt Ion:128 Resp: 2033676  
 Ion Ratio Lower Upper  
 128 100  
 127 13.4 10.8 16.2

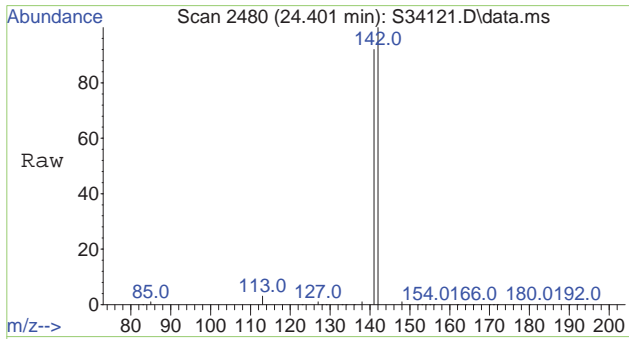
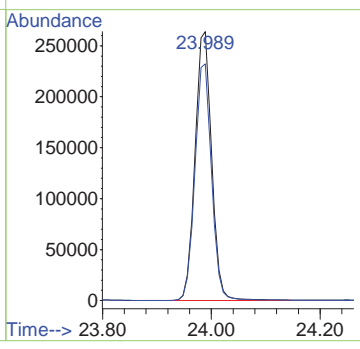
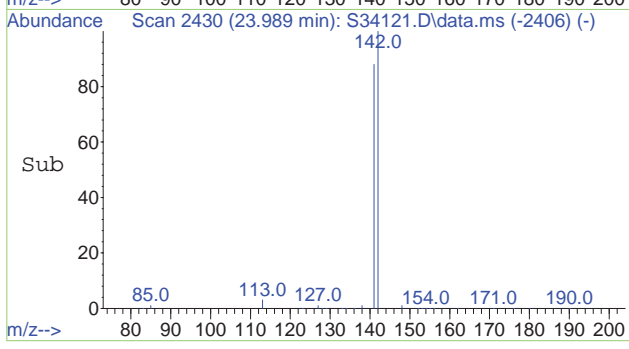


7.1.1  
7



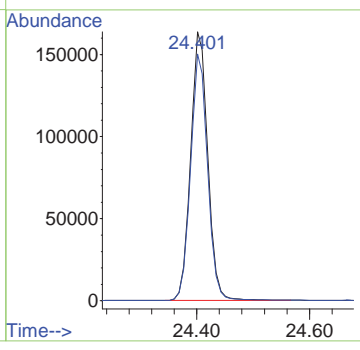
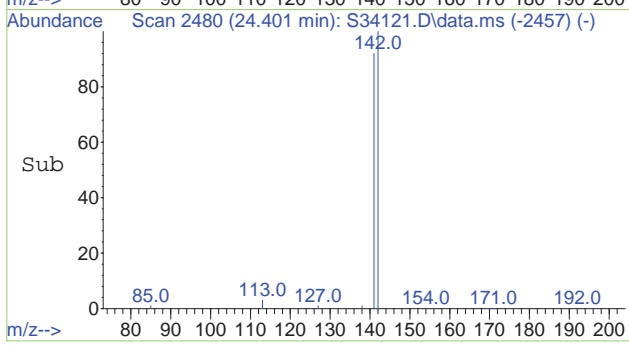
#45  
 2-Methylnaphthalene  
 Concen: 3407.199 ng/mL  
 RT: 23.989 min Scan# 2430  
 Delta R.T. -0.000 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
142	100		
141	88.0	70.3	105.5

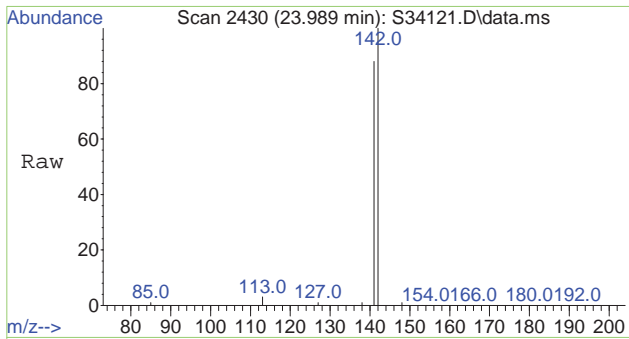


#46  
 1-Methylnaphthalene  
 Concen: 2145.763 ng/mL  
 RT: 24.401 min Scan# 2480  
 Delta R.T. -0.009 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
142	100		
141	91.2	72.8	109.2

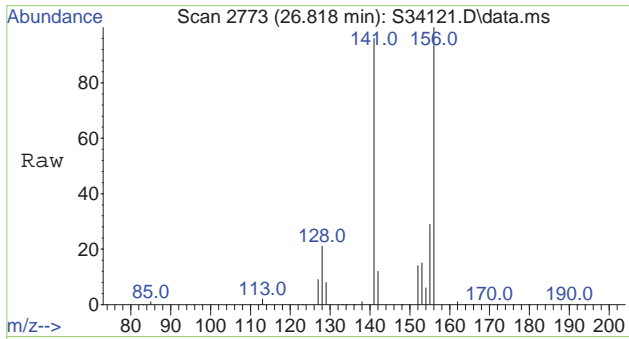
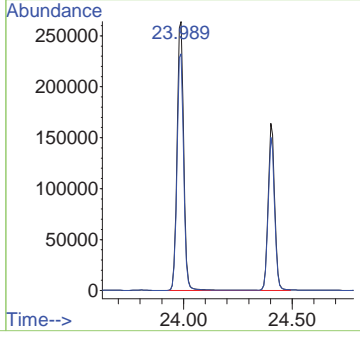
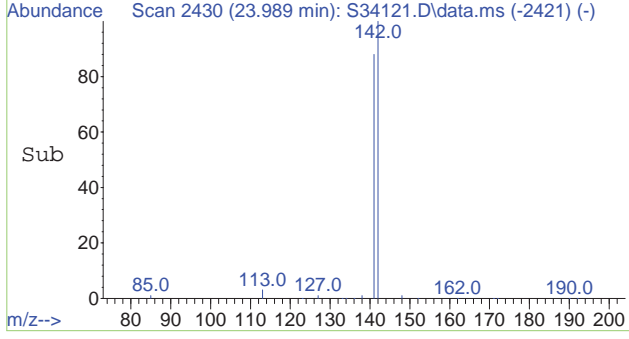


7.1.1  
7



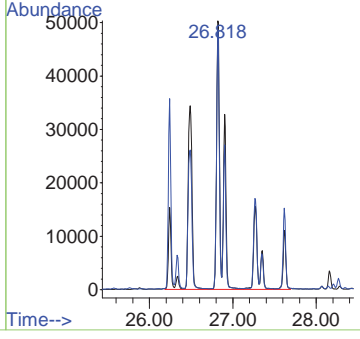
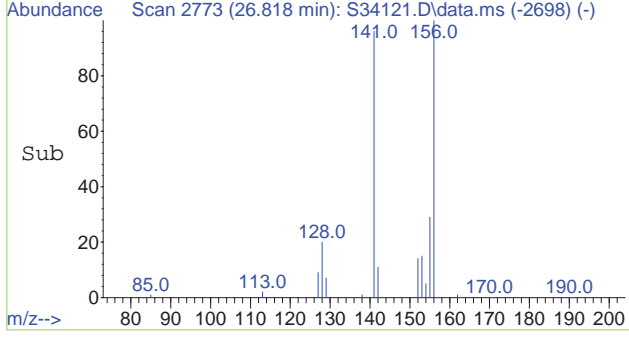
#47  
 C1-Naphthalenes  
 Concen: 3645.103 ng/mL m  
 RT: 23.989 min Scan# 2430  
 Delta R.T. -0.423 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	142	Resp:	905257
Ion Ratio	100	Lower	Upper
141	34.4	73.1	109.7#

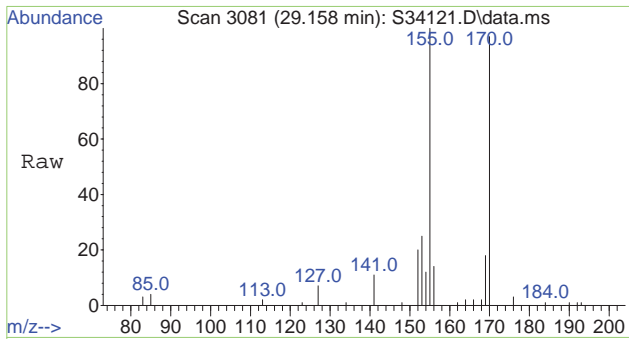


#48  
 C2-Naphthalenes  
 Concen: 1709.394 ng/mL m  
 RT: 26.818 min Scan# 2773  
 Delta R.T. -0.127 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	156	Resp:	424526
Ion Ratio	100	Lower	Upper
141	13.0	61.5	92.3#

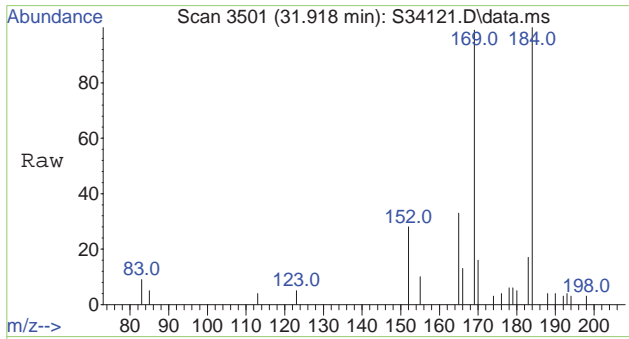
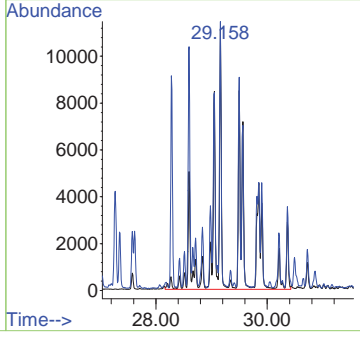
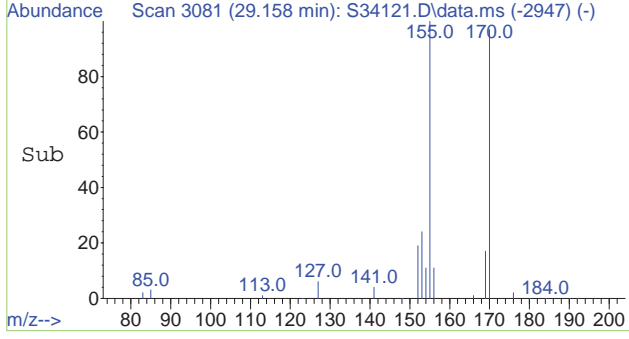


7.1.1  
7



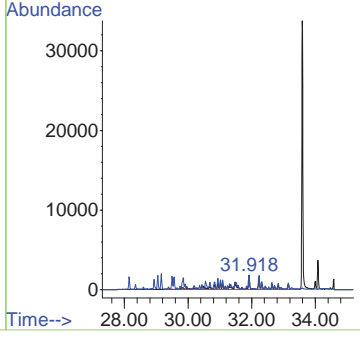
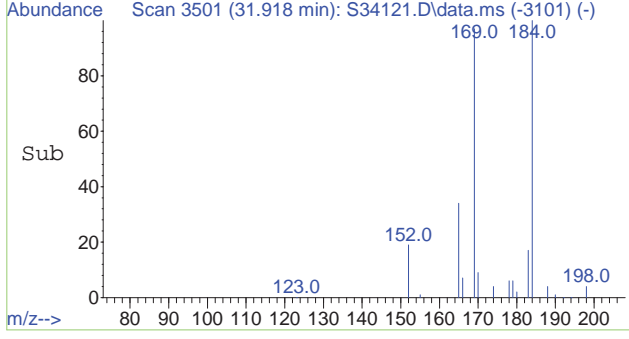
#49  
 C3-Naphthalenes  
 Concen: 570.158 ng/mL m  
 RT: 29.158 min Scan# 3081  
 Delta R.T. 0.224 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
170	100		
155	13.7	83.4	125.0#

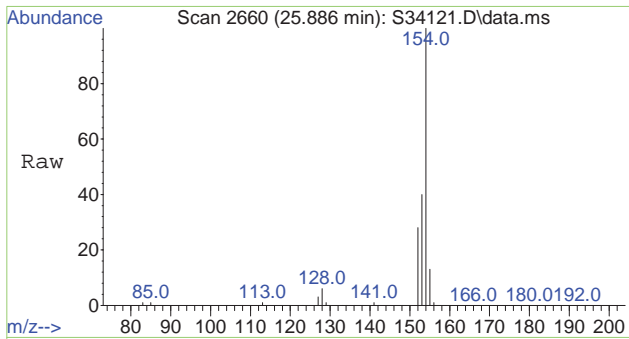


#50  
 C4-Naphthalenes  
 Concen: 163.206 ng/mL m  
 RT: 31.918 min Scan# 3501  
 Delta R.T. -0.215 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
184	100		
169	10.9	77.6	116.4#

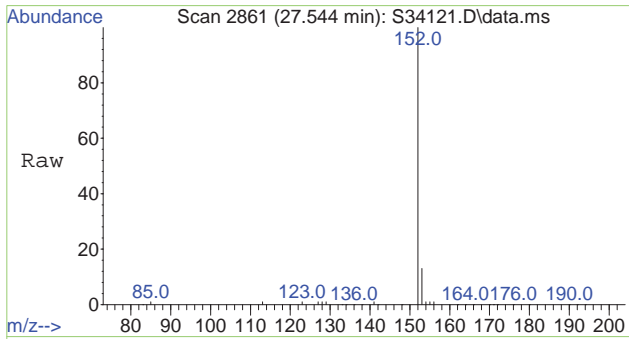
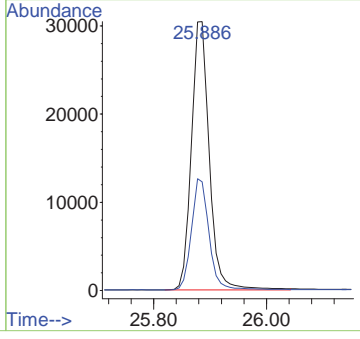
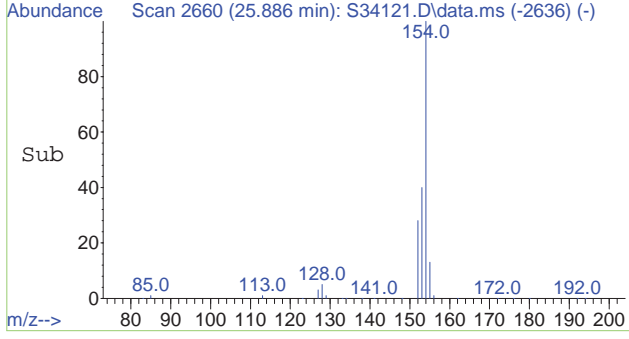


7.1.1  
7



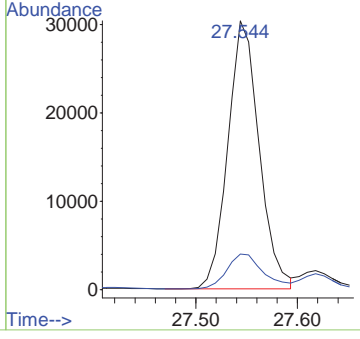
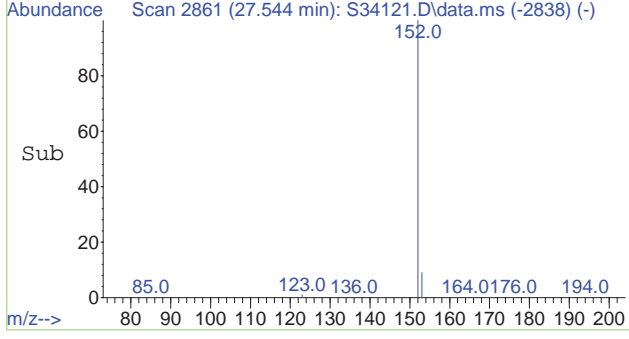
#51  
 Biphenyl  
 Concen: 300.246 µg/mL  
 RT: 25.886 min Scan# 2660  
 Delta R.T. -0.000 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
154	100		
153	40.8	32.9	49.3



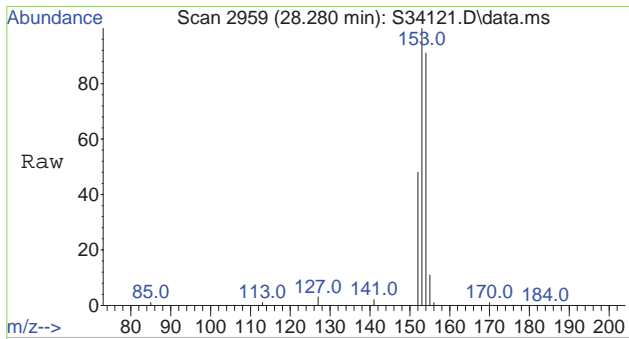
#52  
 Acenaphthylene  
 Concen: 276.928 ng/mL  
 RT: 27.544 min Scan# 2861  
 Delta R.T. -0.009 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
152	100		
153	15.3	10.5	15.7



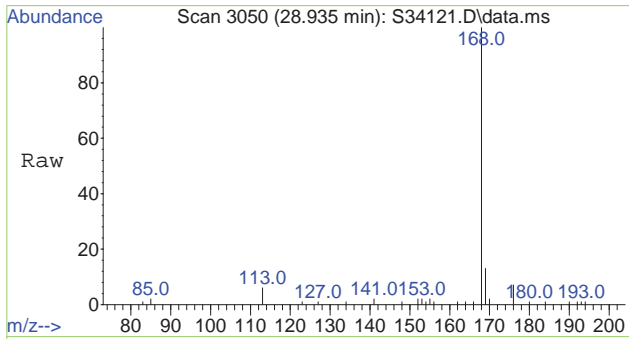
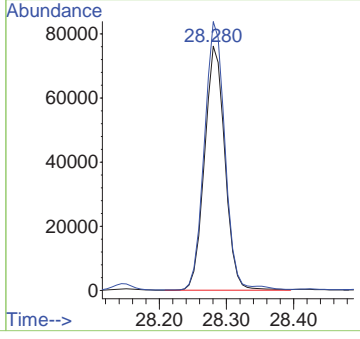
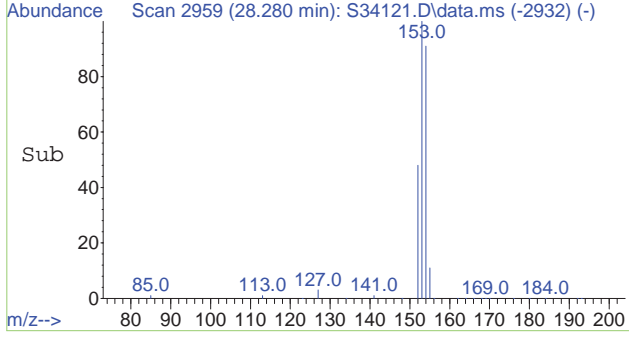
7.1.1  
7





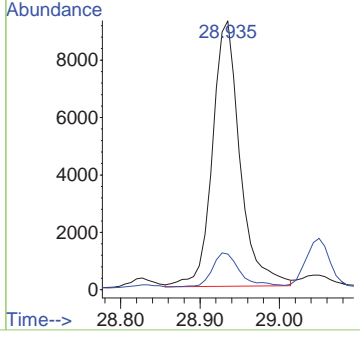
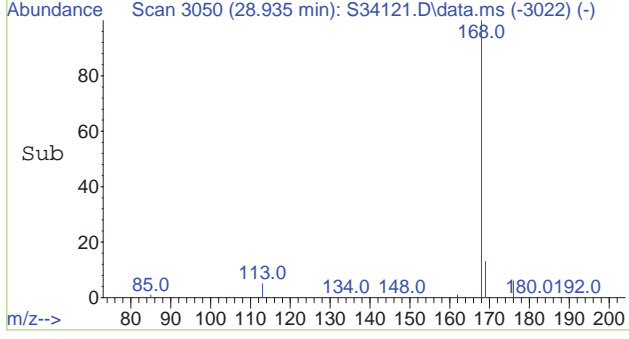
#53  
 Acenaphthene  
 Concen: 1120.237 ng/mL  
 RT: 28.280 min Scan# 2959  
 Delta R.T. -0.008 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
154	100		
153	111.4	88.2	132.2

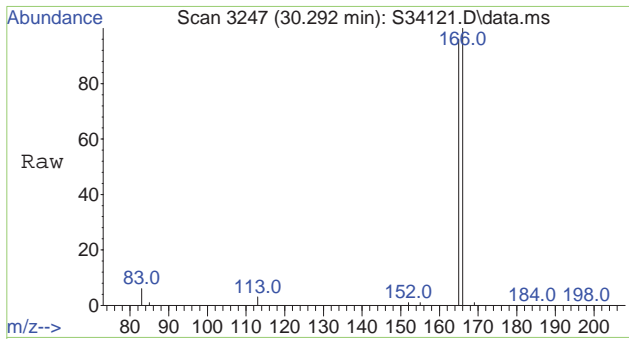


#54  
 Dibenzofuran  
 Concen: 103.239 ng/mL  
 RT: 28.935 min Scan# 3050  
 Delta R.T. -0.000 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
168	100		
169	13.4	10.4	15.6

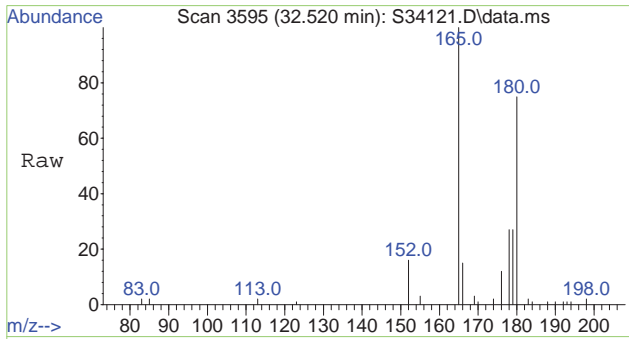
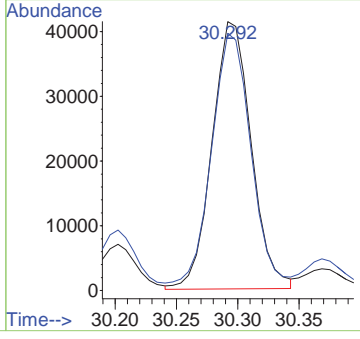
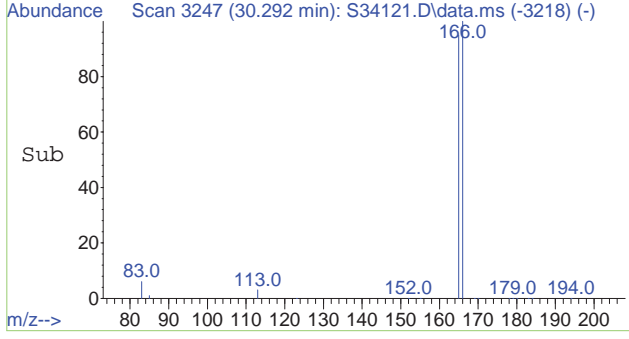


7.1.1  
7



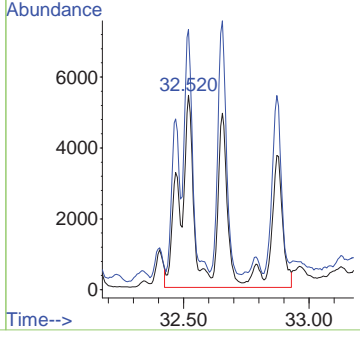
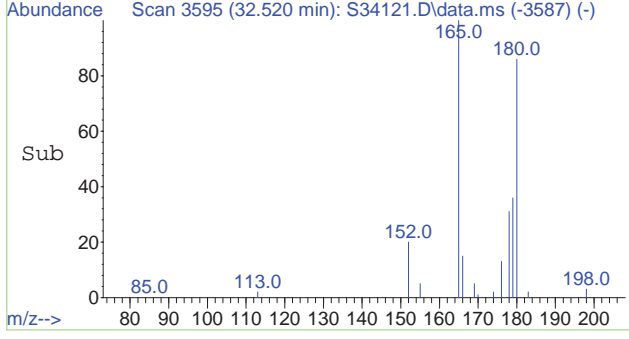
#55  
 Fluorene  
 Concen: 530.858 ng/mL  
 RT: 30.292 min Scan# 3247  
 Delta R.T. -0.013 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
166	100		
165	96.4	77.4	116.2

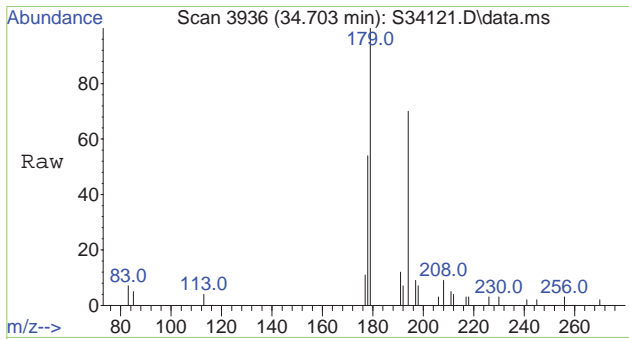


#56  
 Cl-Fluorenes  
 Concen: 260.092 ng/mL m  
 RT: 32.520 min Scan# 3595  
 Delta R.T. -0.087 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
180	100		
165	36.8	132.2	198.4#

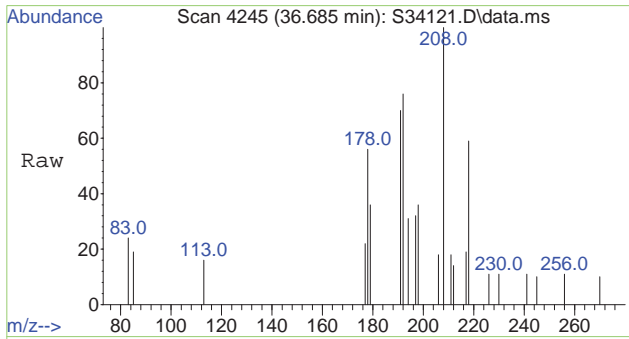
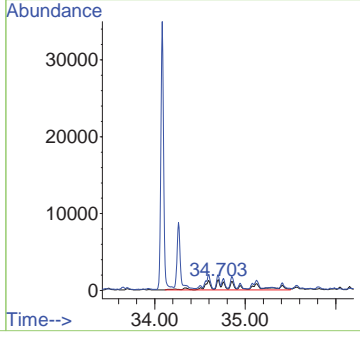
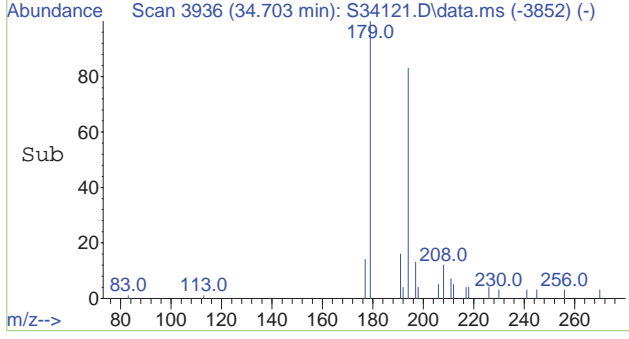


7.1.1  
7



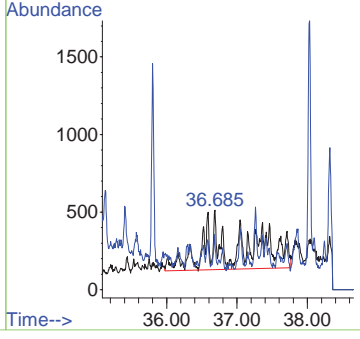
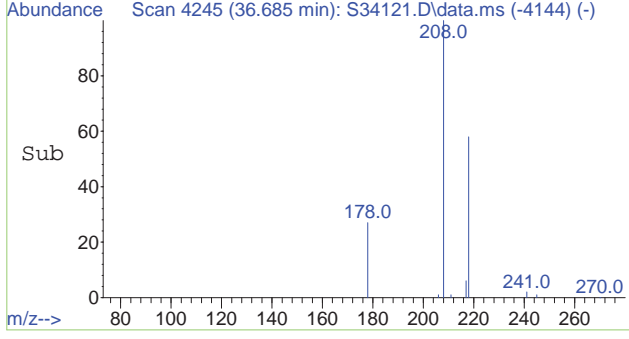
#57  
 C2-Fluorenes  
 Concen: 152.867 ng/mL m  
 RT: 34.703 min Scan# 3936  
 Delta R.T. -0.063 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	194	Resp:	26382
Ion Ratio	Lower	Upper	
	194	100	
	179	11.5	124.6 186.8#

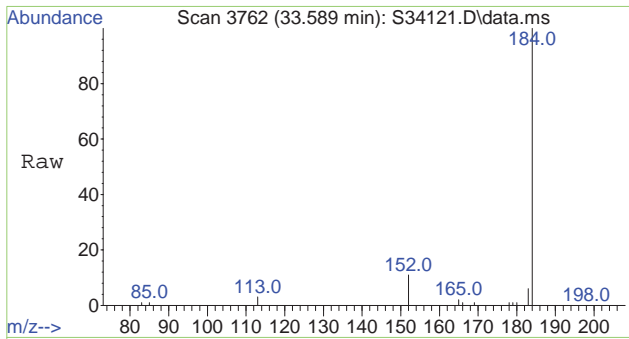


#58  
 C3-Fluorenes  
 Concen: 73.803 ng/mL m  
 RT: 36.685 min Scan# 4245  
 Delta R.T. -0.636 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	208	Resp:	12737
Ion Ratio	Lower	Upper	
	208	100	
	178	6.3	57.0 85.4#

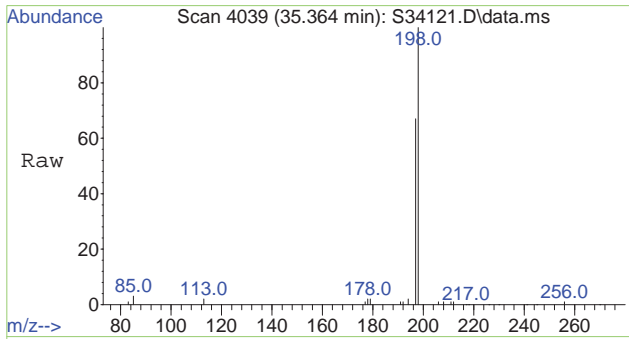
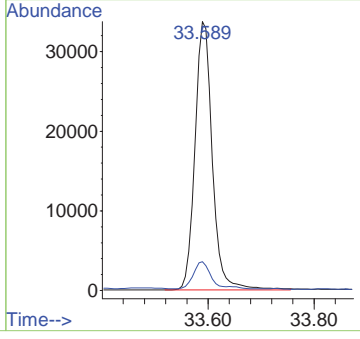
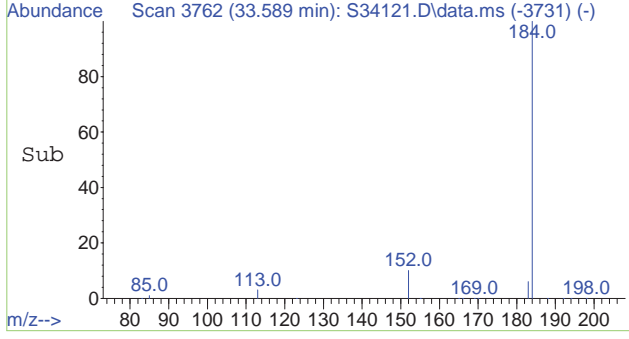


7.1.1  
7



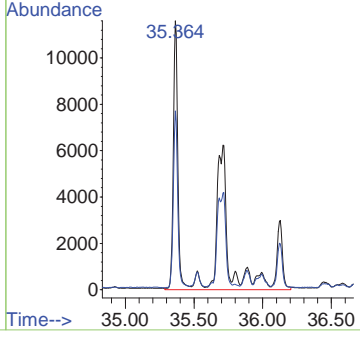
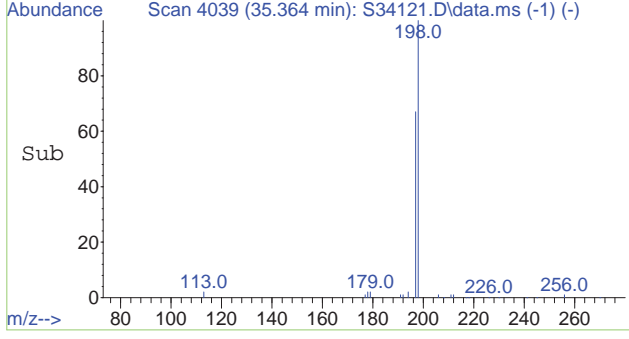
#59  
 Dibenzothiophene  
 Concen: 313.116 ng/mL  
 RT: 33.589 min Scan# 3762  
 Delta R.T. -0.001 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
184	100		
152	10.3	14.3	21.5#

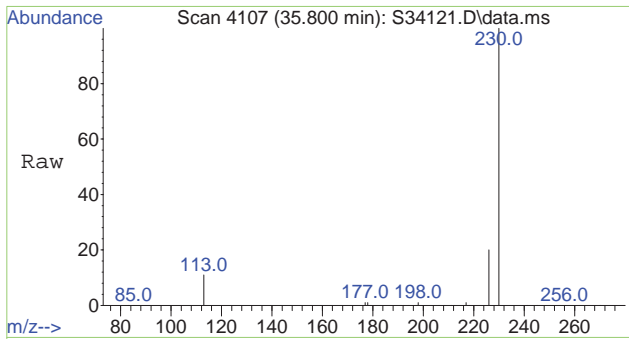


#60  
 Cl-Dibenzothiophenes (unadj)  
 Concen: 296.456 ng/mL m  
 RT: 35.364 min Scan# 4039  
 Delta R.T. 0.080 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
198	100		
197	23.6	52.2	78.4#

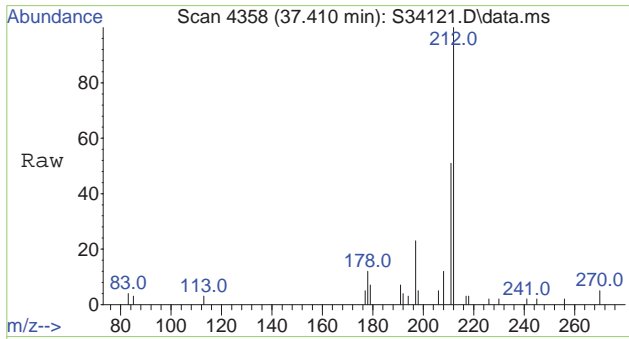
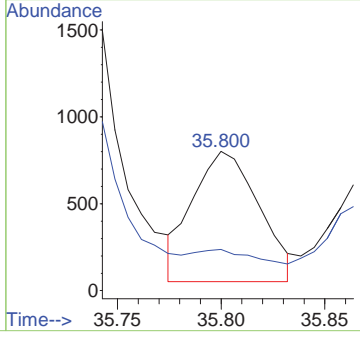
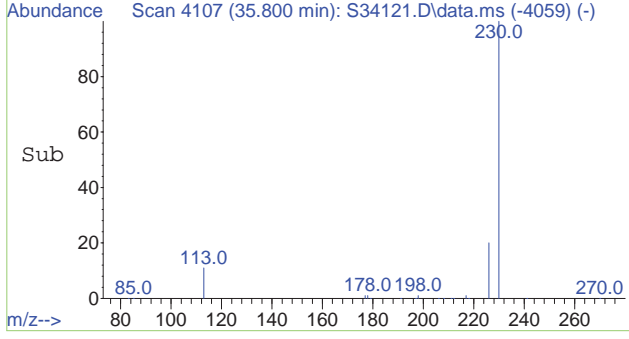


7.1.1  
7



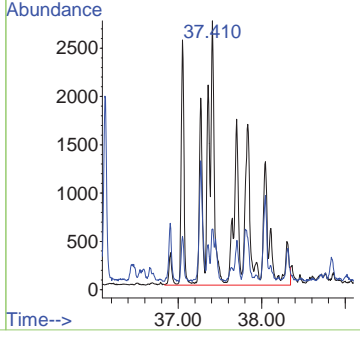
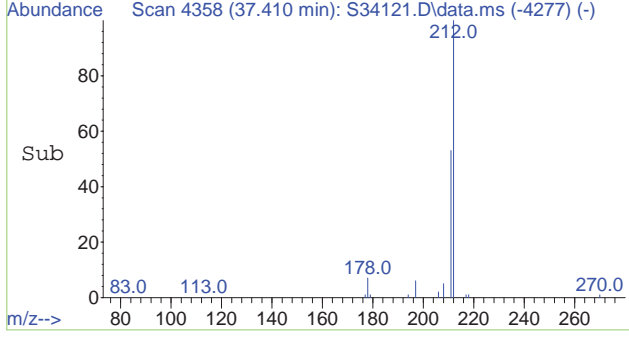
#61  
 C1-Dibenzothiophenes (OTP)  
 Concen: 6.815 µg/mL m  
 RT: 35.800 min Scan# 4107  
 Delta R.T. 0.106 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
198	100		
197	442.5	8.4	12.6#

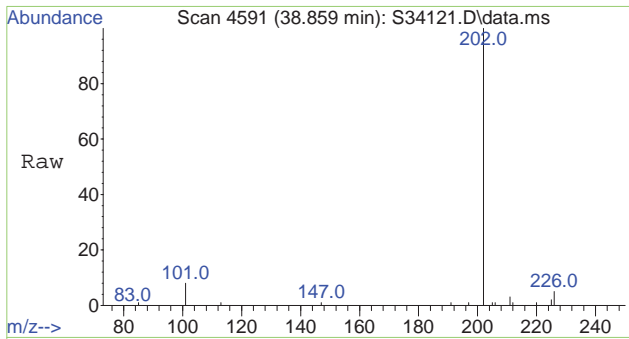


#62  
 C2-Dibenzothiophenes  
 Concen: 177.195 ng/mL m  
 RT: 37.410 min Scan# 4358  
 Delta R.T. 0.115 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
212	100		
197	2.6	18.8	28.2#

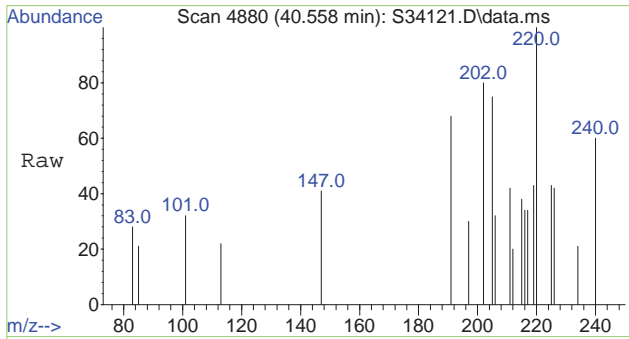
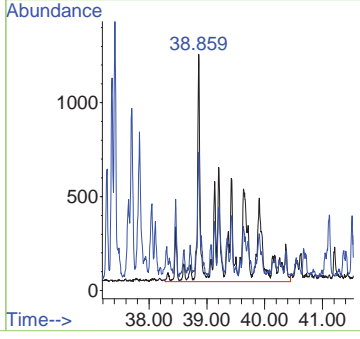
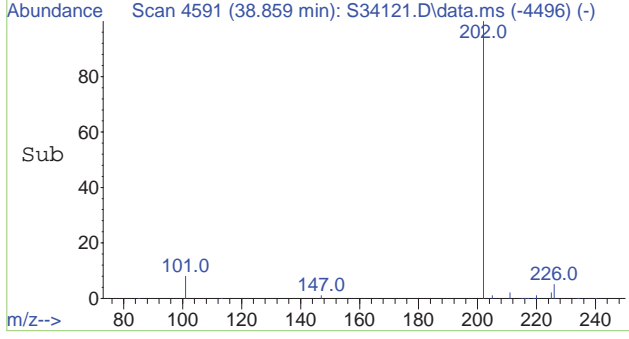


7.1.1  
7



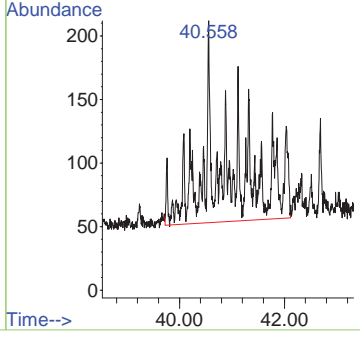
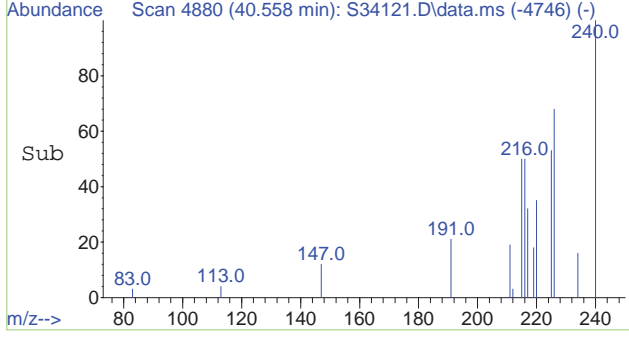
#63  
 C3-Dibenzothiophenes  
 Concen: 74.382 ng/mL m  
 RT: 38.859 min Scan# 4591  
 Delta R.T. 0.140 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
226	100		
211	9.8	47.9	71.9#

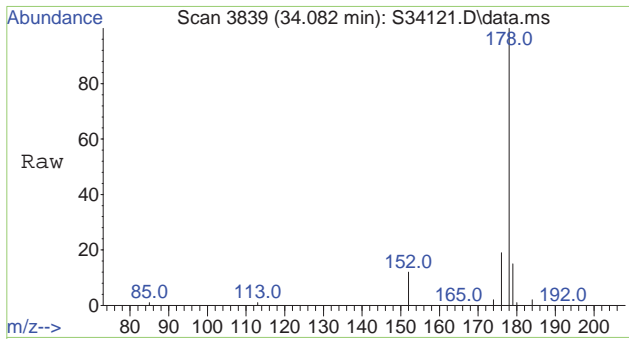


#64  
 C4-Dibenzothiophenes  
 Concen: 18.338 ng/mL m  
 RT: 40.558 min Scan# 4880  
 Delta R.T. 0.174 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:240 Resp: 4491

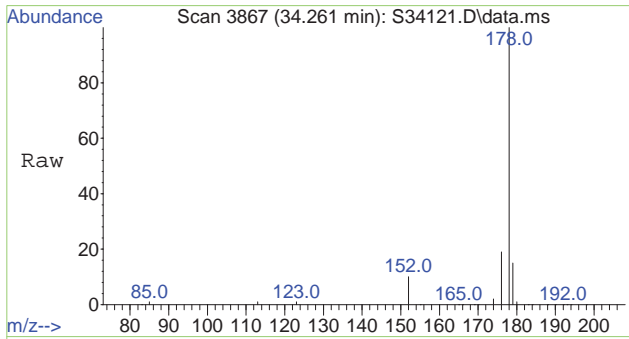
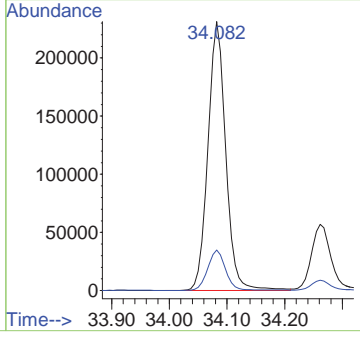
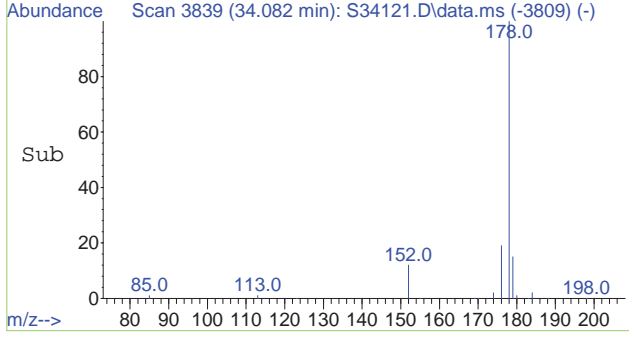


7.1.1  
7



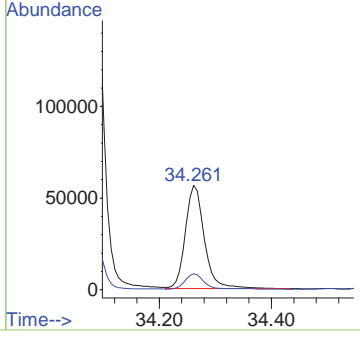
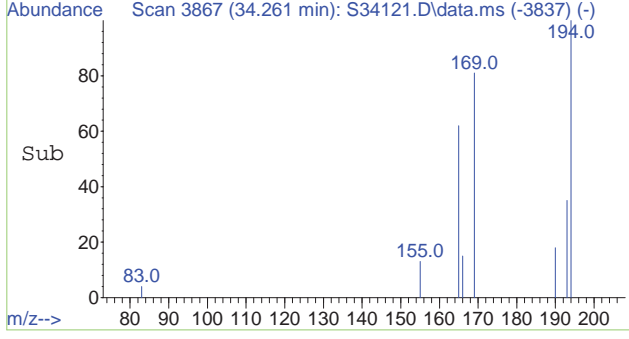
#65  
 Phenanthrene  
 Concen: 1971.726 ng/mL  
 RT: 34.082 min Scan# 3839  
 Delta R.T. -0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.1	12.2	18.2

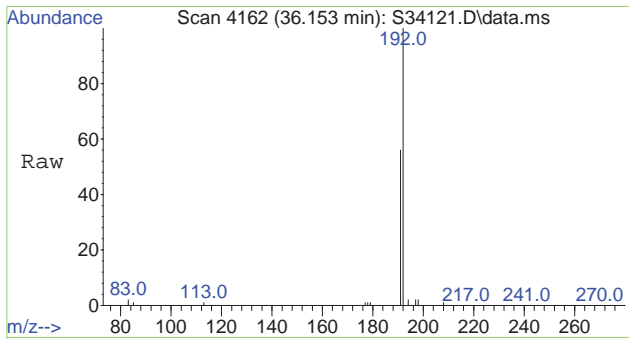


#66  
 Anthracene  
 Concen: 585.517 ng/mL  
 RT: 34.261 min Scan# 3867  
 Delta R.T. -0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.8	12.3	18.5

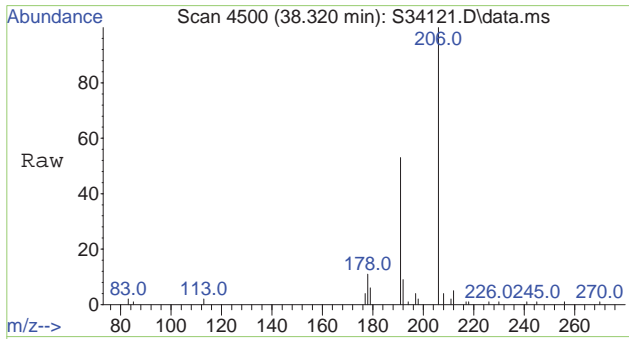
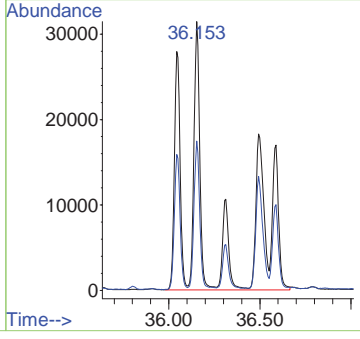
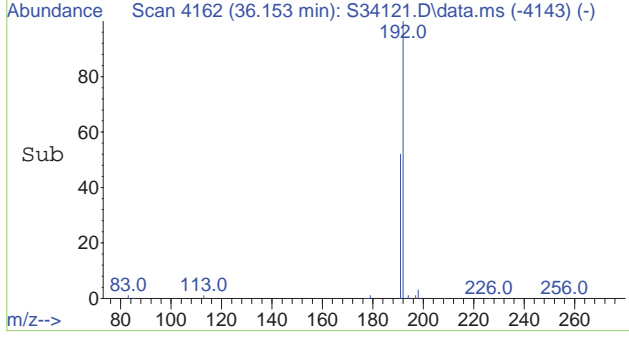


7.1.1  
7



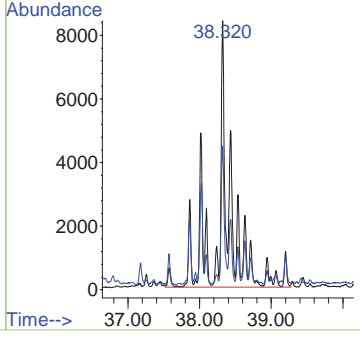
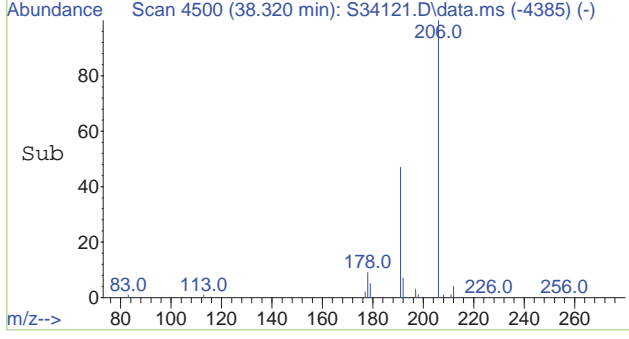
#67  
 C1-Phenanthrenes/anthracenes  
 Concen: 999.551 ng/mL m  
 RT: 36.153 min Scan# 4162  
 Delta R.T. -0.242 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	192	Resp:	250005
Ion Ratio	100	Lower	Upper
191	4.6	46.0	69.0#



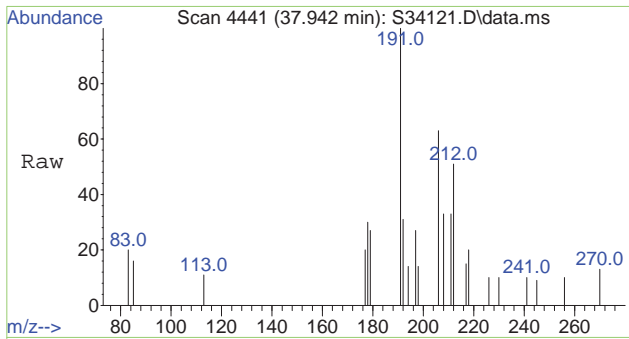
#68  
 C2-Phenanthrenes/anthracenes (unadj)  
 Concen: 375.228 ng/mL m  
 RT: 38.320 min Scan# 4500  
 Delta R.T. -0.215 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	206	Resp:	93851
Ion Ratio	100	Lower	Upper
191	3.3	46.3	69.5#



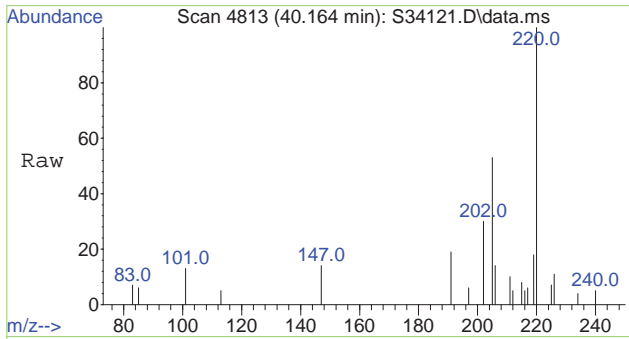
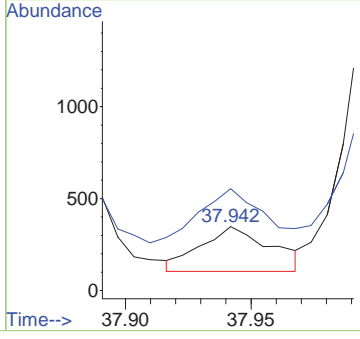
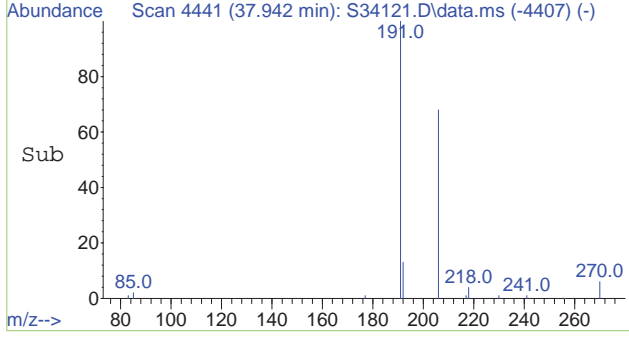
7.1.1  
7





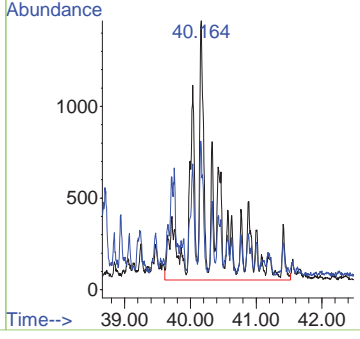
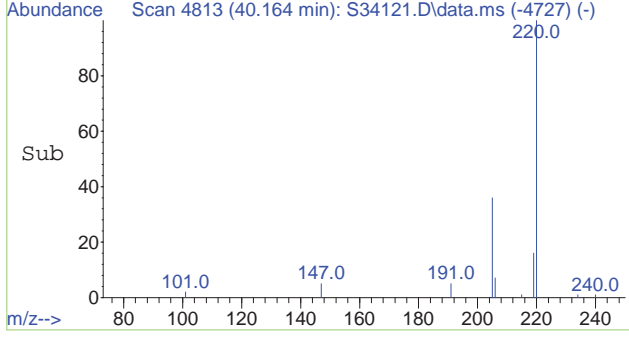
#69  
 C2-Phenanthrenes/anthracenes (5aA)  
 Concen: 1.879 µg/mL m  
 RT: 37.942 min Scan# 4441  
 Delta R.T. 0.016 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:206	Resp:	470
Ion Ratio	Lower	Upper
206	100	
191	110.2	451.6 677.4#

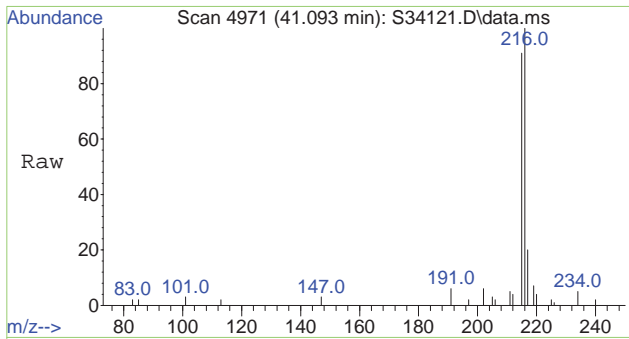


#70  
 C3-Phenanthrenes/anthracenes  
 Concen: 105.898 ng/mL m  
 RT: 40.164 min Scan# 4813  
 Delta R.T. 0.009 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:220	Resp:	26487
Ion Ratio	Lower	Upper
220	100	
205	10.2	44.2 66.2#

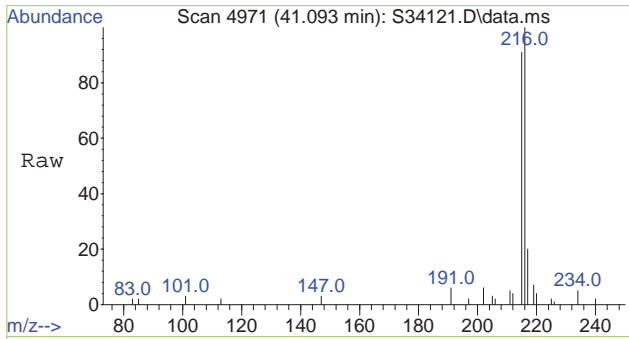
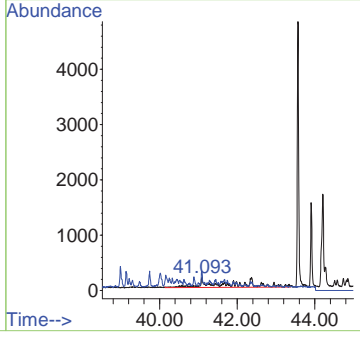
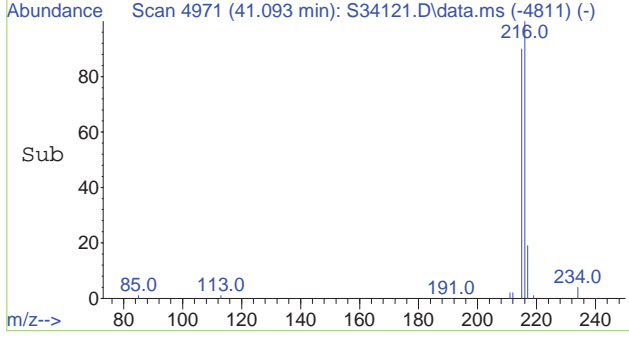


7.1.1  
7



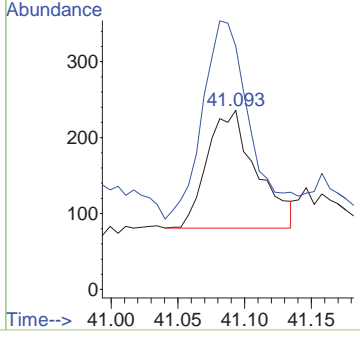
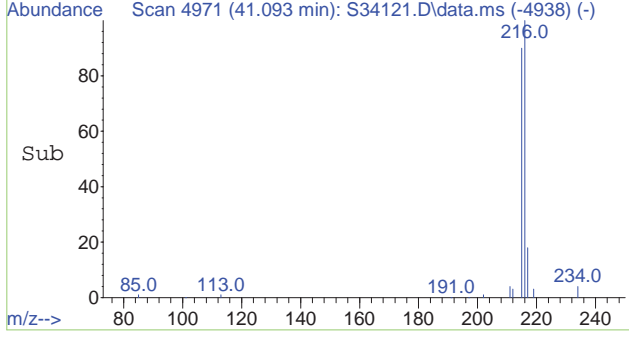
#71  
 C4-Phenanthrenes/anthracenes  
 Concen: 28.691 ng/mL m  
 RT: 41.093 min Scan# 4971  
 Delta R.T. -0.530 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
234	100		
219	0.0	49.4	74.0#

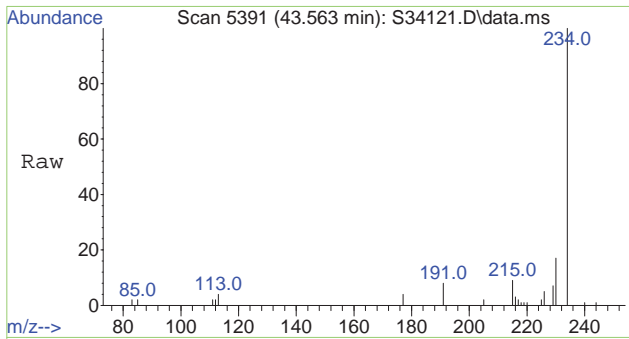


#72  
 Retene  
 Concen: 11.230 µg/mL  
 RT: 41.093 min Scan# 4971  
 Delta R.T. -0.006 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

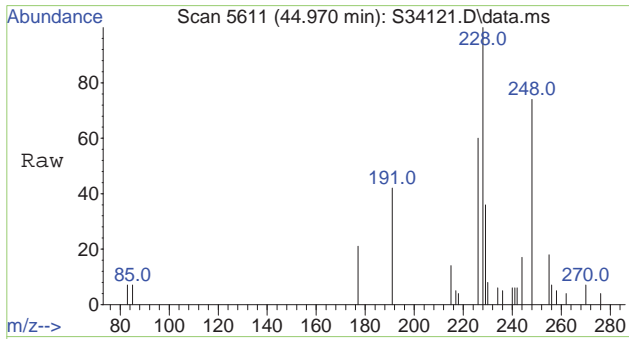
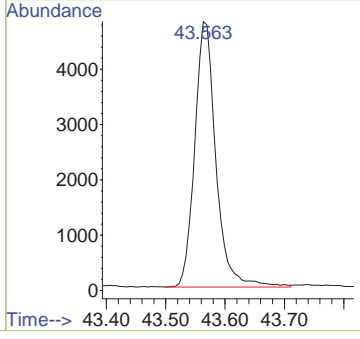
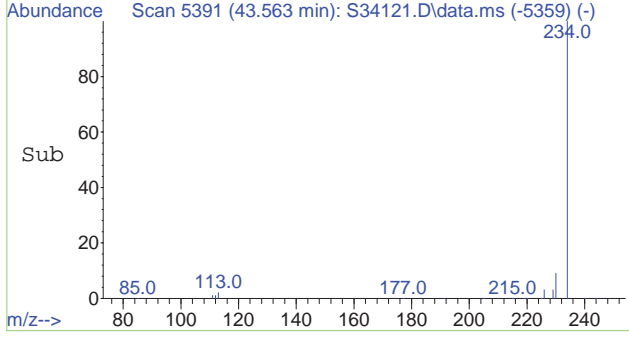
Tgt Ion	Ratio	Lower	Upper
234	100		
219	162.1	131.3	196.9



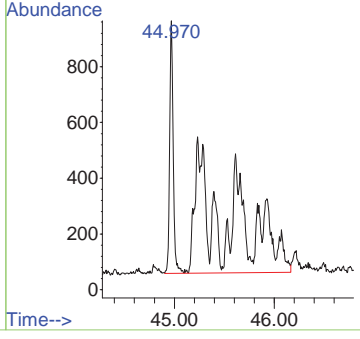
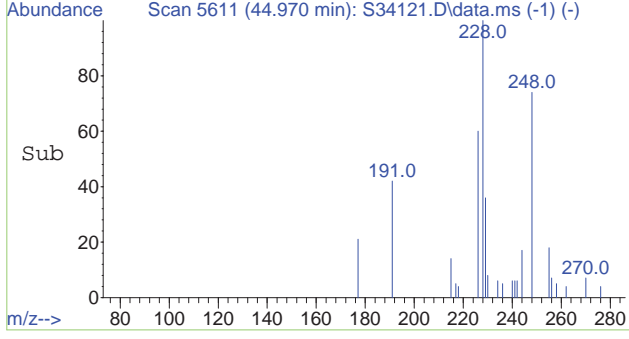
7.1.1  
7



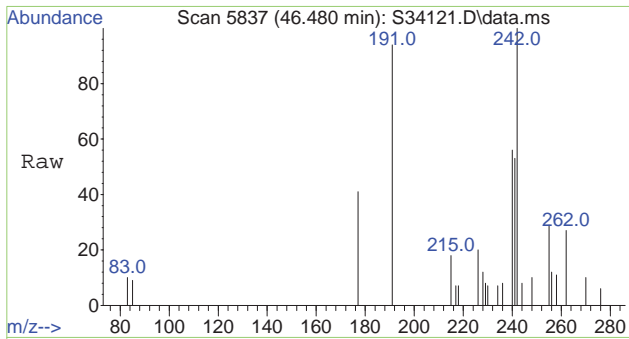
#73  
 Benzo(b)naphtho(2,1-d)thiophene  
 Concen: 51.519 µg/mL  
 RT: 43.563 min Scan# 5391  
 Delta R.T. -0.012 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm  
 Tgt Ion:234 Resp: 11879



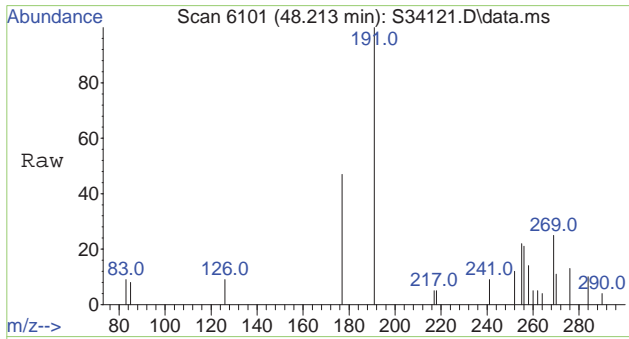
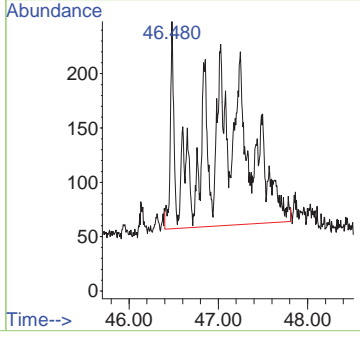
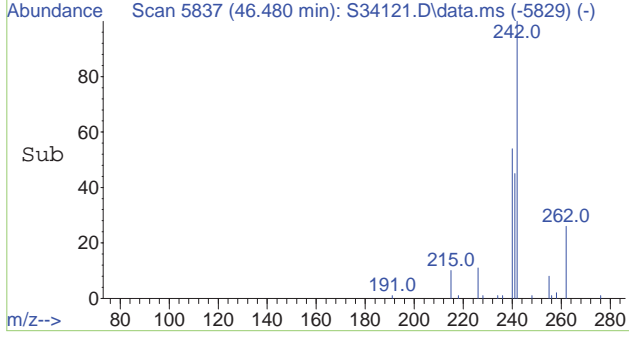
#74  
 Cl-Benzonaphthothiophenes  
 Concen: 55.392 µg/mL m  
 RT: 44.970 min Scan# 5611  
 Delta R.T. 0.232 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm  
 Tgt Ion:248 Resp: 12772



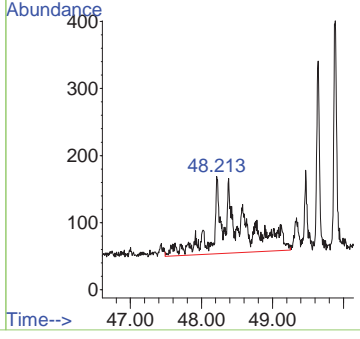
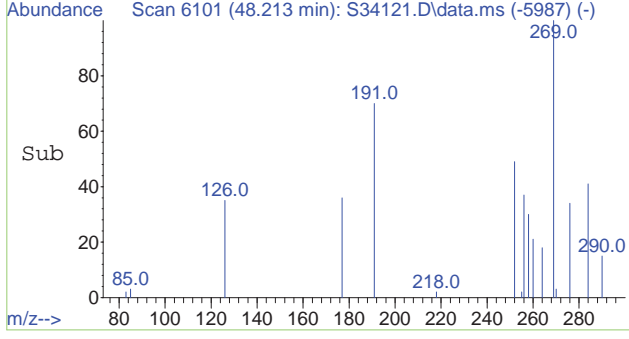
7.1.1  
7



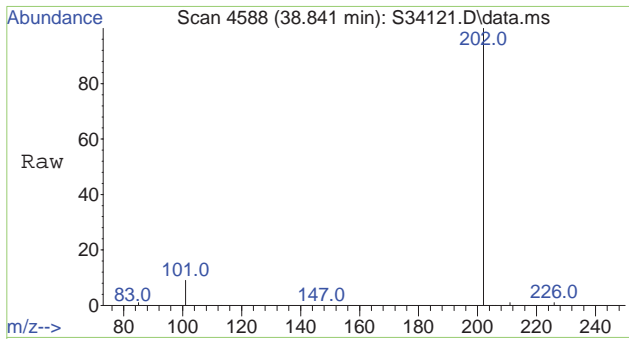
#75  
 C2-Benzonaphthothiophenes  
 Concen: 22.236 µg/mL m  
 RT: 46.480 min Scan# 5837  
 Delta R.T. -0.276 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm  
 Tgt Ion:262 Resp: 5127



#76  
 C3-Benzonaphthothiophenes  
 Concen: 12.504 µg/mL m  
 RT: 48.213 min Scan# 6101  
 Delta R.T. -0.070 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm  
 Tgt Ion:276 Resp: 2883

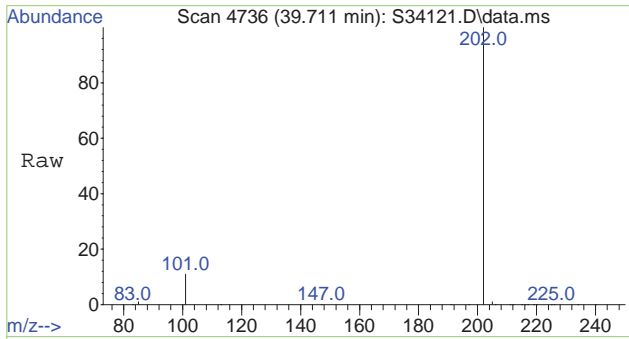
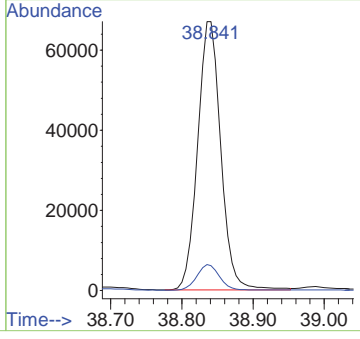
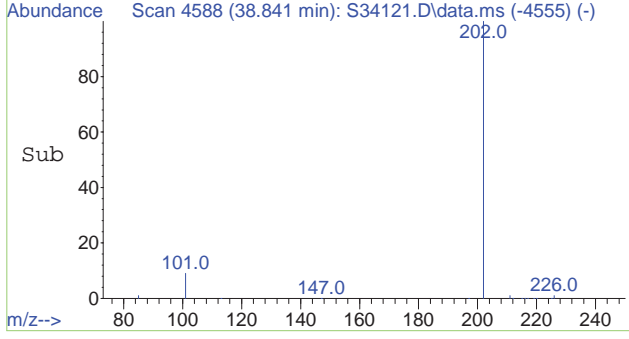


7.1.1  
7



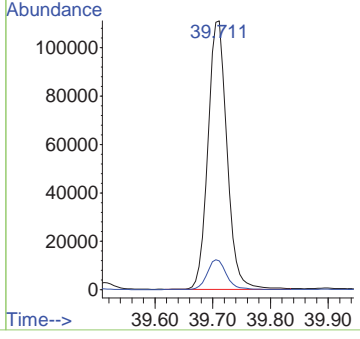
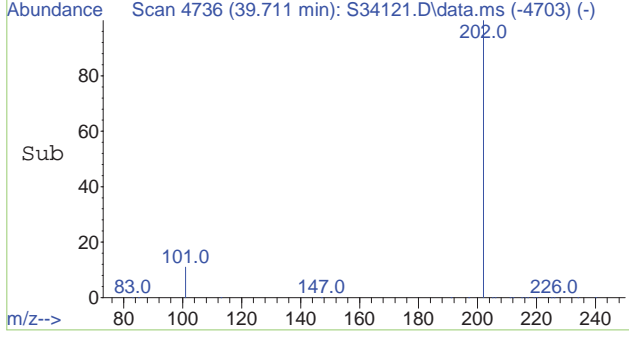
#78  
 Fluoranthene  
 Concen: 585.291 ng/mL  
 RT: 38.841 min Scan# 4588  
 Delta R.T. -0.006 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	202	Resp:	151671
Ion Ratio	Lower	Upper	
202	100		
101	9.3	8.1	12.1

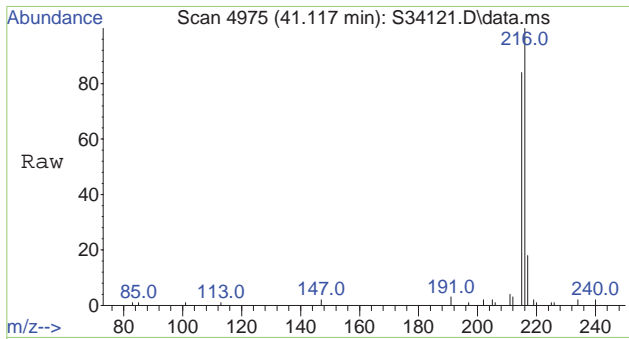


#79  
 Pyrene  
 Concen: 966.243 ng/mL  
 RT: 39.711 min Scan# 4736  
 Delta R.T. -0.006 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	202	Resp:	254706
Ion Ratio	Lower	Upper	
202	100		
101	11.2	9.4	14.2

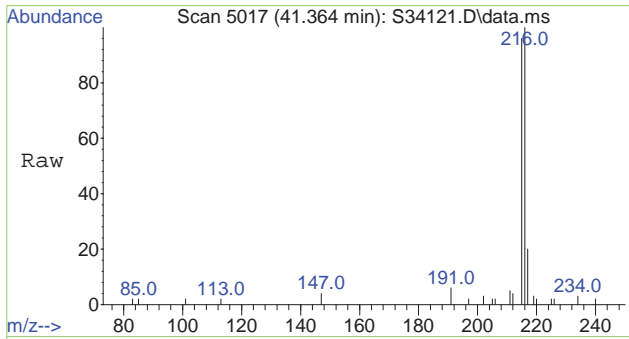
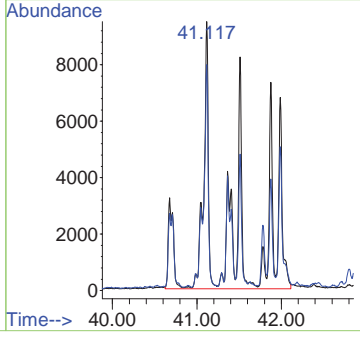
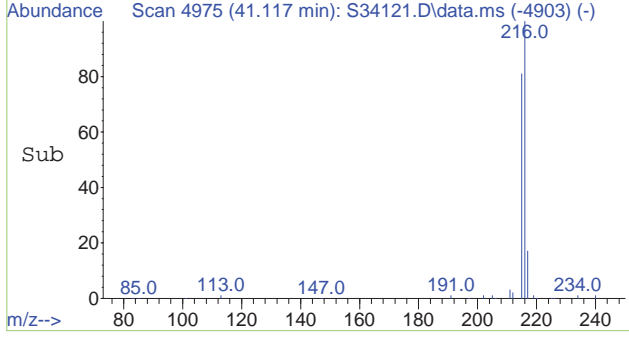


7.1.1  
7



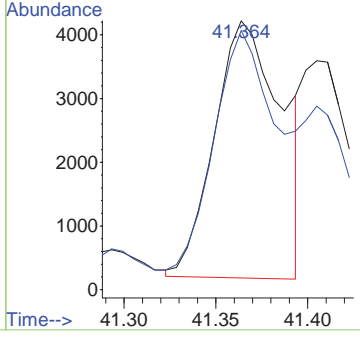
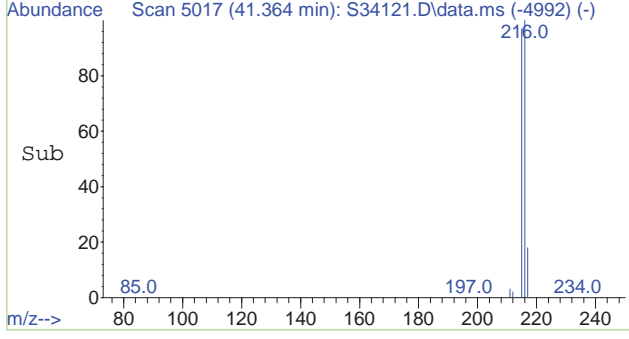
#80  
 Cl-Fluoranthenes/pyrenes  
 Concen: 502.878 ng/mL m  
 RT: 41.117 min Scan# 4975  
 Delta R.T. 0.046 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
216	100		
215	16.8	78.0	117.0#

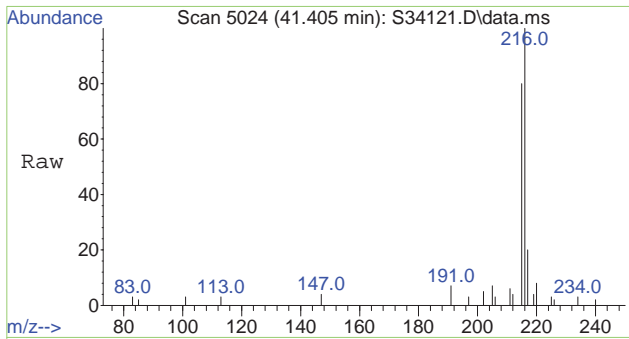


#81  
 Benzo(b)fluorene  
 Concen: 38.937 ng/mL m  
 RT: 41.364 min Scan# 5017  
 Delta R.T. -0.055 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
216	100		
215	0.0	113.4	170.0#

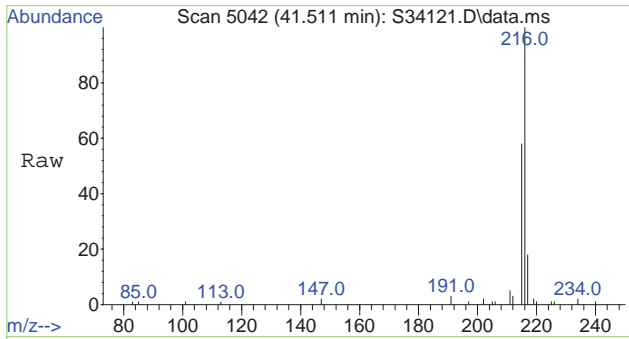
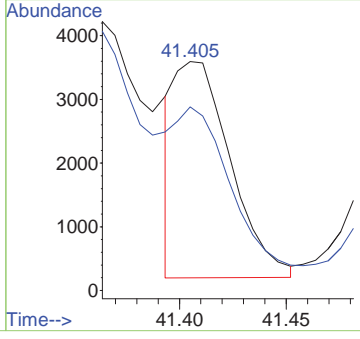
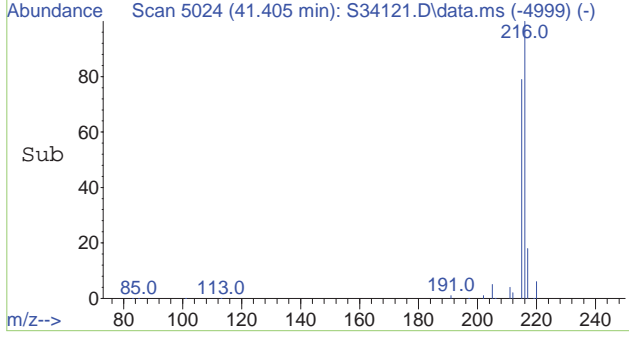


7.1.1  
7



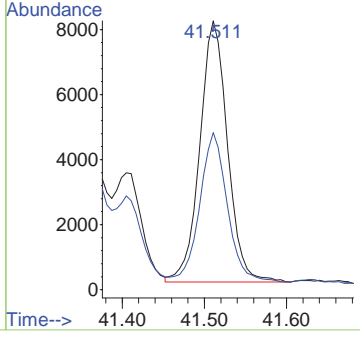
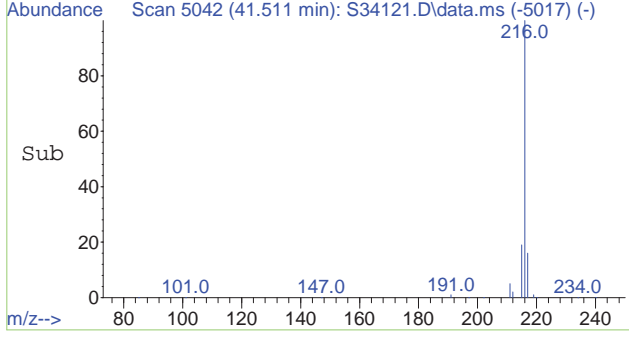
#82  
 Benzo(c)fluorene  
 Concen: 23.554 µg/mL  
 RT: 41.405 min Scan# 5024  
 Delta R.T. -0.055 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	216	Resp:	6209
Ion Ratio	100	Lower	Upper
215	0.0	124.1	186.1#

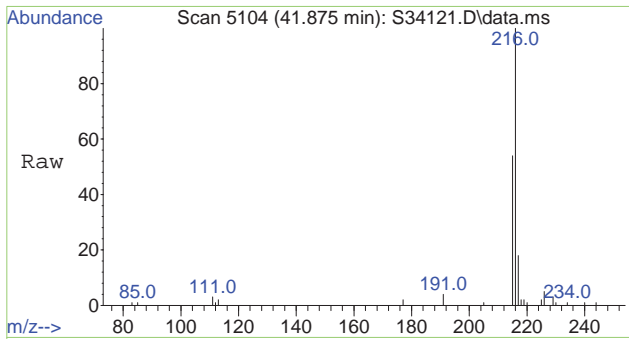


#83  
 2-Methylpyrene  
 Concen: 71.300 ng/mL  
 RT: 41.511 min Scan# 5042  
 Delta R.T. -0.055 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	216	Resp:	18795
Ion Ratio	100	Lower	Upper
215	56.9	79.5	119.3#

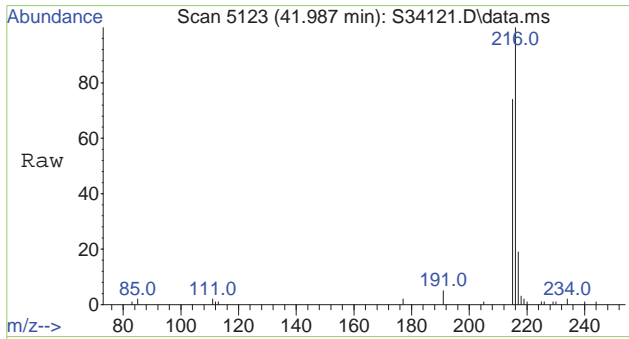
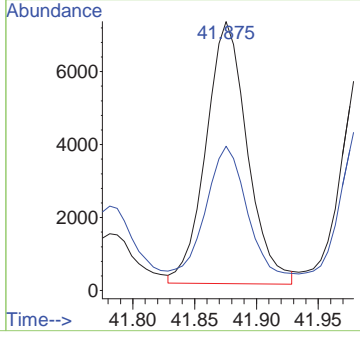
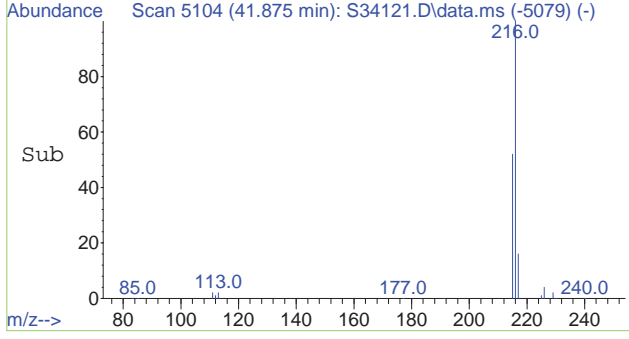


7.1.1  
7



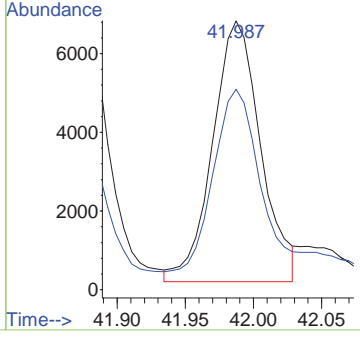
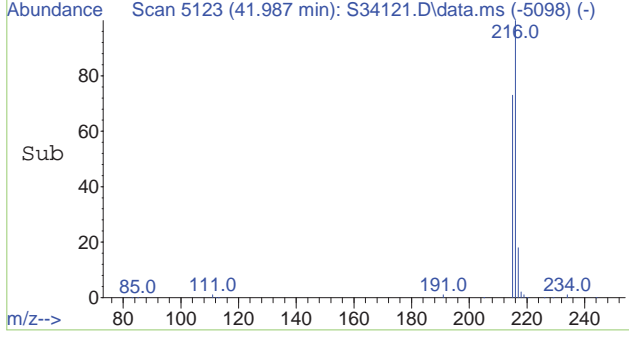
#84  
 4-Methylpyrene  
 Concen: 63.360 ng/mL m  
 RT: 41.875 min Scan# 5104  
 Delta R.T. -0.055 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	216	Resp:	16702
Ion Ratio	100	Lower	Upper
216	100		
215	77.0	60.0	90.0



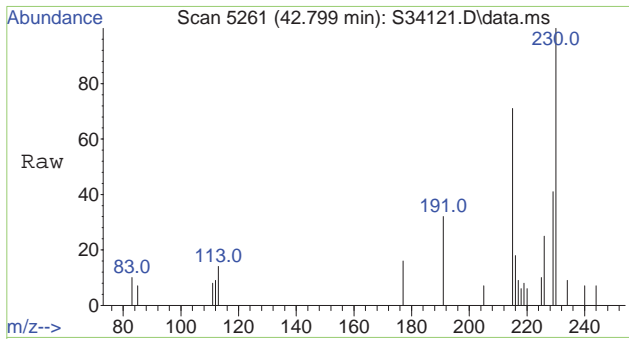
#85  
 1-Methylpyrene  
 Concen: 61.714 ng/mL m  
 RT: 41.987 min Scan# 5123  
 Delta R.T. -0.055 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	216	Resp:	16268
Ion Ratio	100	Lower	Upper
216	100		
215	88.4	79.4	119.2



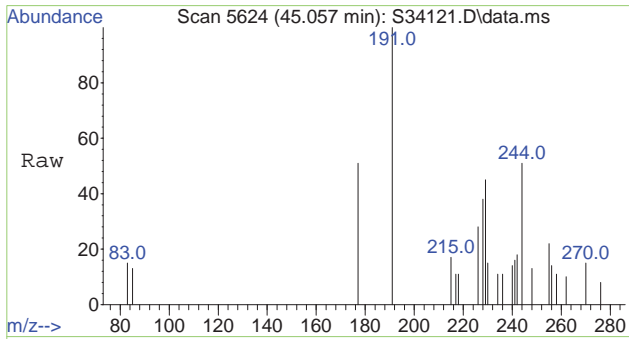
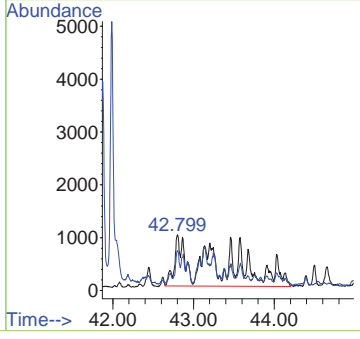
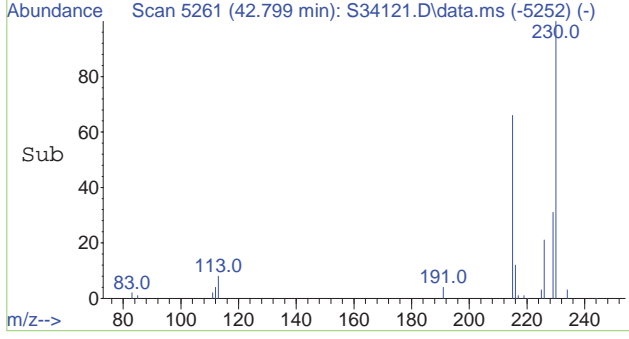
7.1.1  
7





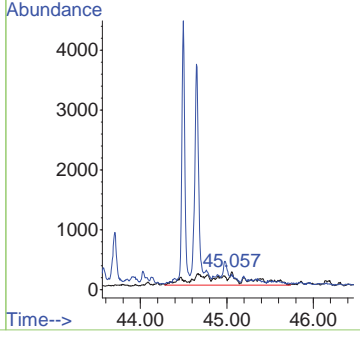
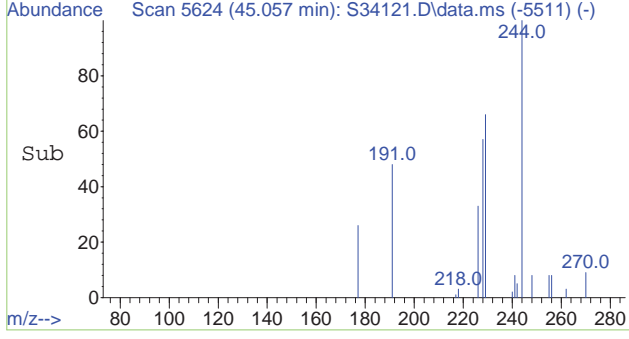
#86  
 C2-Fluoranthenes/pyrenes  
 Concen: 126.591 ng/mL m  
 RT: 42.799 min Scan# 5261  
 Delta R.T. -0.756 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	230	Resp:	33370
Ion Ratio	230	Lower	Upper
	100		
	215	3.1	109.7 164.5#

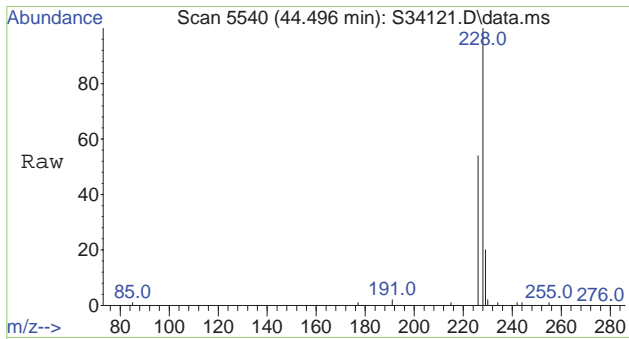


#87  
 C3-Fluoranthenes/pyrenes  
 Concen: 28.971 ng/mL m  
 RT: 45.057 min Scan# 5624  
 Delta R.T. 0.351 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	244	Resp:	7637
Ion Ratio	244	Lower	Upper
	100		
	229	3.2	83.8 125.6#

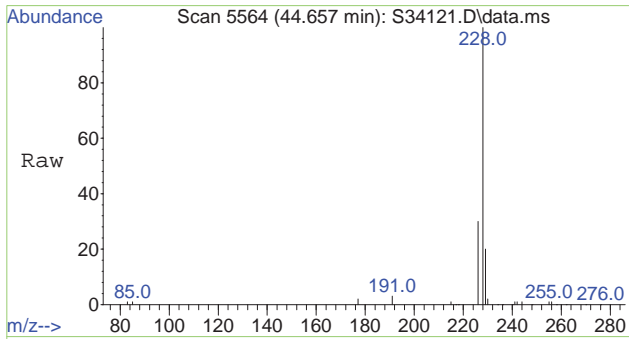
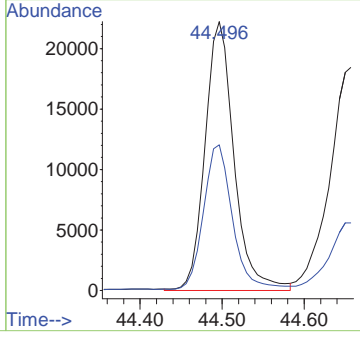
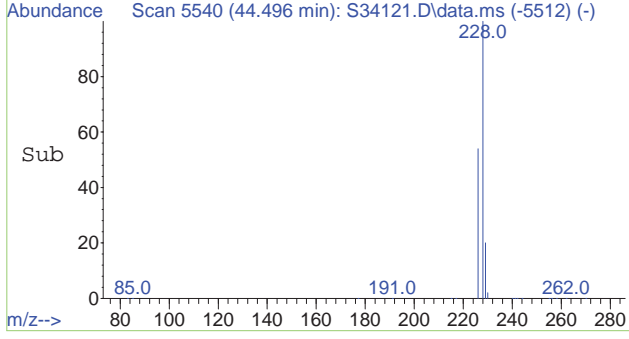


7.1.1  
7



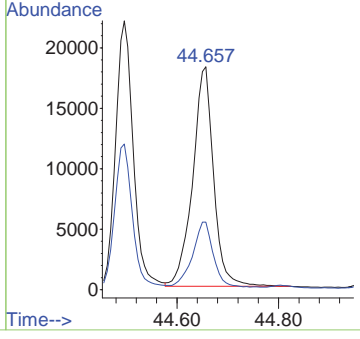
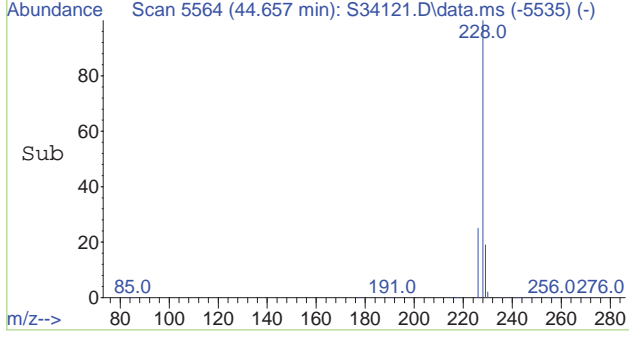
#88  
Benz(a)anthracene  
Concen: 244.165 ng/mL m  
RT: 44.496 min Scan# 5540  
Delta R.T. -0.014 min  
Lab File: S34121.D  
Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
228	100		
226	23.1	21.1	31.7

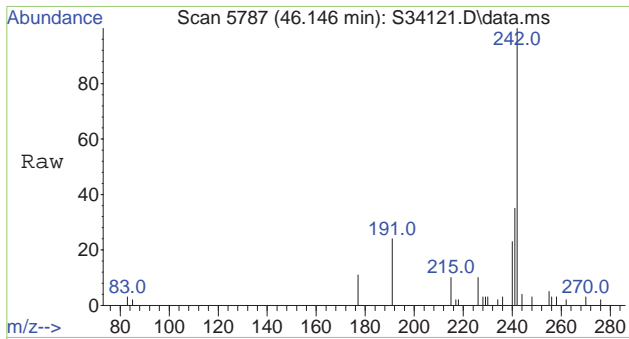


#89  
Chrysene  
Concen: 242.378 ng/mL  
RT: 44.657 min Scan# 5564  
Delta R.T. -0.007 min  
Lab File: S34121.D  
Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.5	23.7	35.5

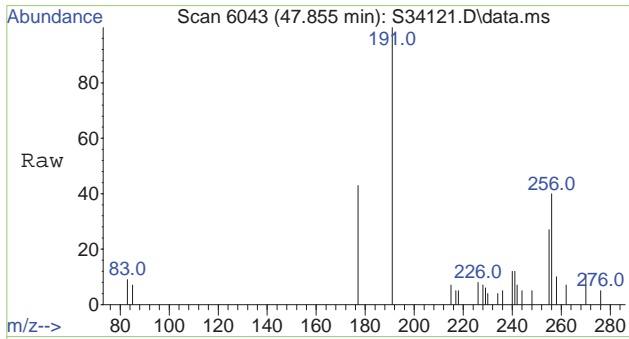
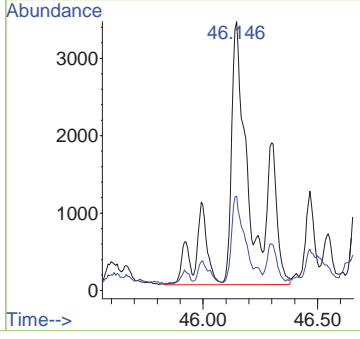
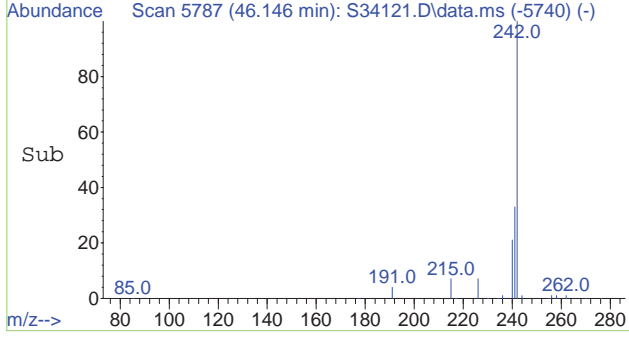


7.1.1  
7



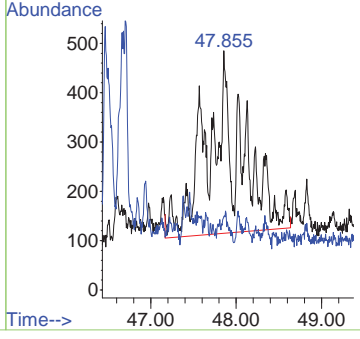
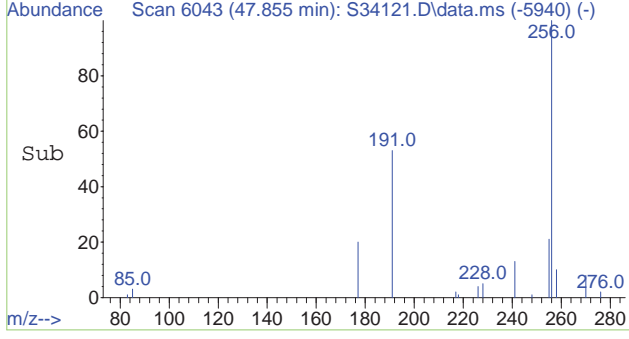
#90  
 C1-Benz(a)anthracenes/chrysenes  
 Concen: 112.886 ng/mL m  
 RT: 46.146 min Scan# 5787  
 Delta R.T. 0.257 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
242	100		
241	1.8	36.2	54.4#

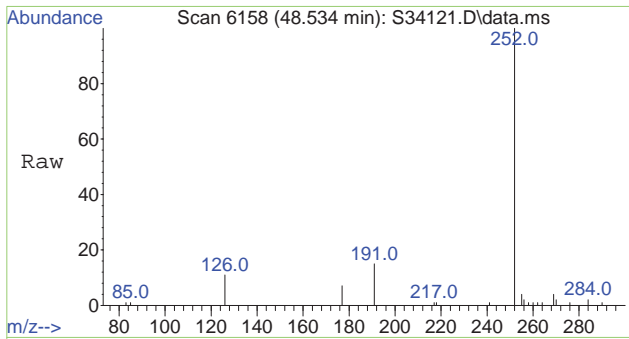


#91  
 C2-Benz(a)anthracenes/chrysenes  
 Concen: 45.742 ng/mL m  
 RT: 47.855 min Scan# 6043  
 Delta R.T. -0.074 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
256	100		
241	0.0	27.5	41.3#

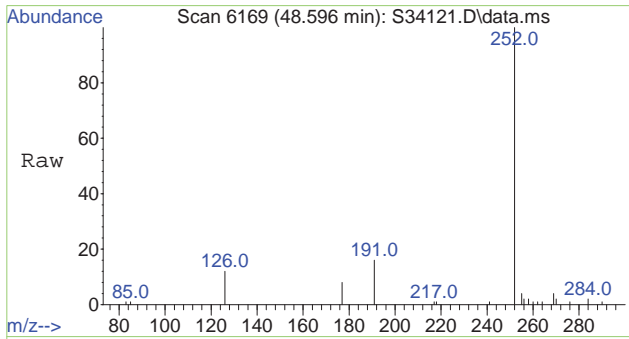
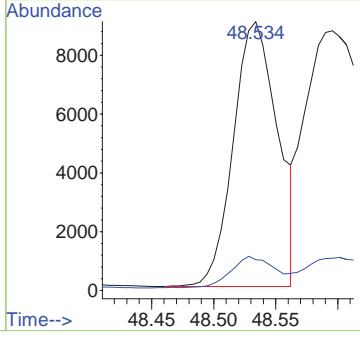
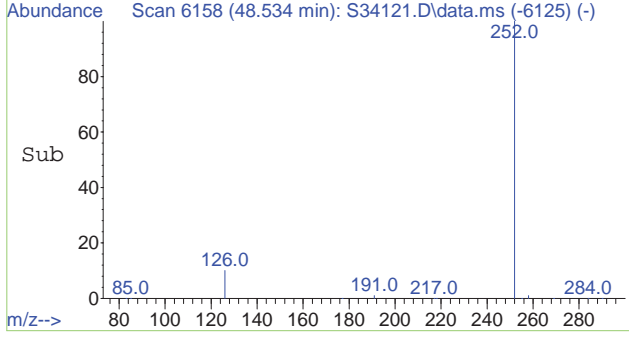


7.1.1  
7



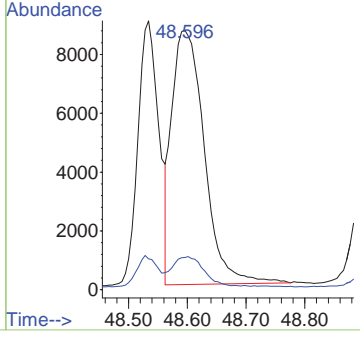
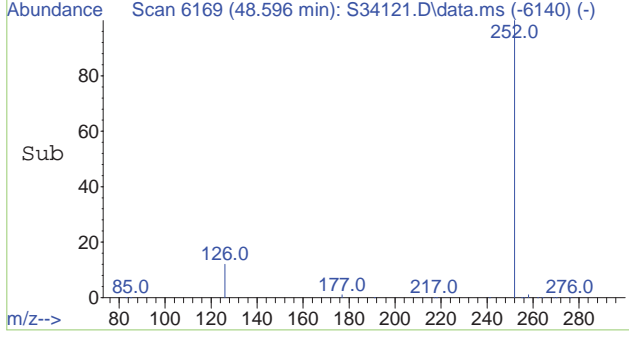
#94  
 Benzo(b)fluoranthene  
 Concen: 92.879 ng/mL  
 RT: 48.534 min Scan# 6158  
 Delta R.T. -0.012 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	252	Resp:	22478
Ion Ratio	100	Lower	Upper
	126	11.5	9.4 14.2

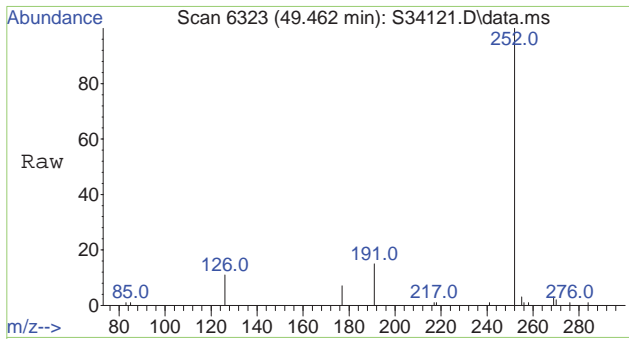


#95  
 Benzo(k)fluoranthene  
 Concen: 133.898 ng/mL  
 RT: 48.596 min Scan# 6169  
 Delta R.T. -0.034 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	252	Resp:	33226
Ion Ratio	100	Lower	Upper
	126	11.1	10.2 15.2

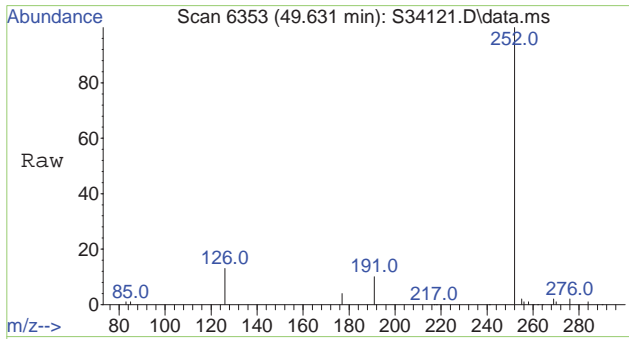
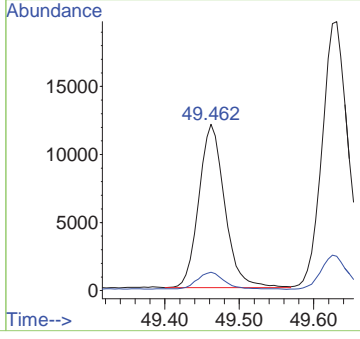
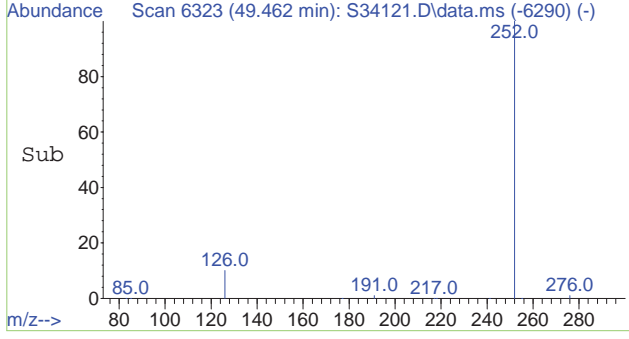


7.1.1  
7



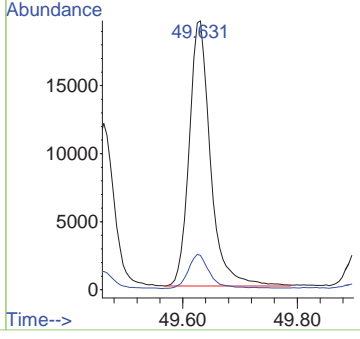
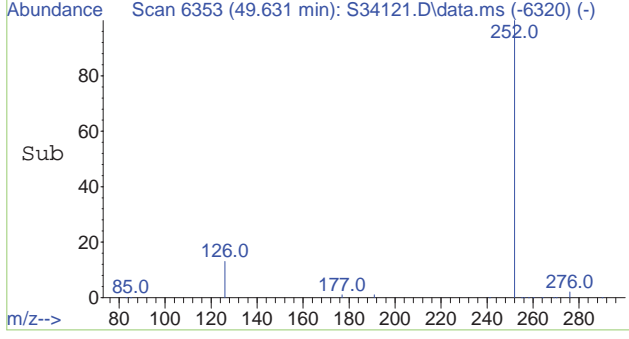
#96  
 Benzo(e)pyrene  
 Concen: 128.200 ng/mL  
 RT: 49.462 min Scan# 6323  
 Delta R.T. -0.012 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:252	Resp:	29034
Ion Ratio	Lower	Upper
252	100	
126	10.7	8.2 12.4

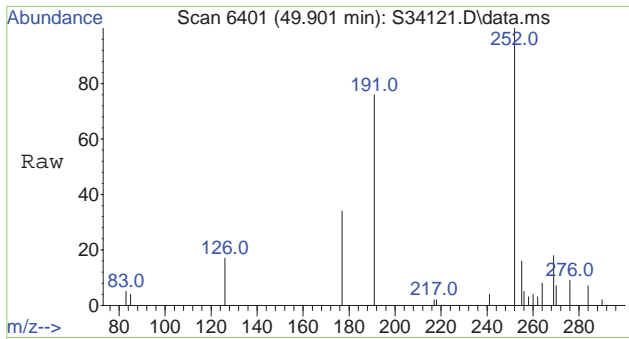


#97  
 Benzo(a)pyrene  
 Concen: 239.760 ng/mL  
 RT: 49.631 min Scan# 6353  
 Delta R.T. -0.012 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:252	Resp:	50241
Ion Ratio	Lower	Upper
252	100	
126	12.9	9.9 14.9

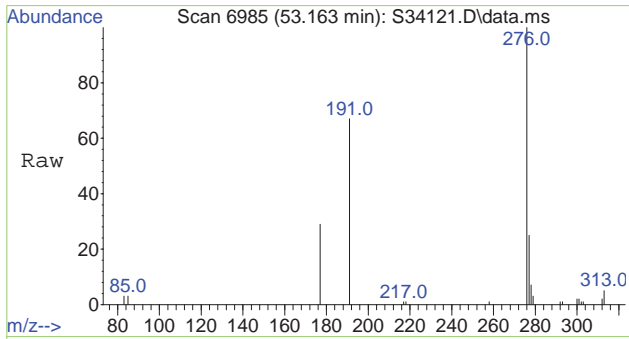
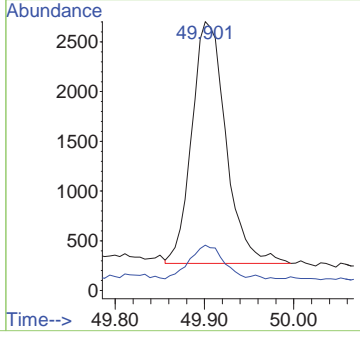
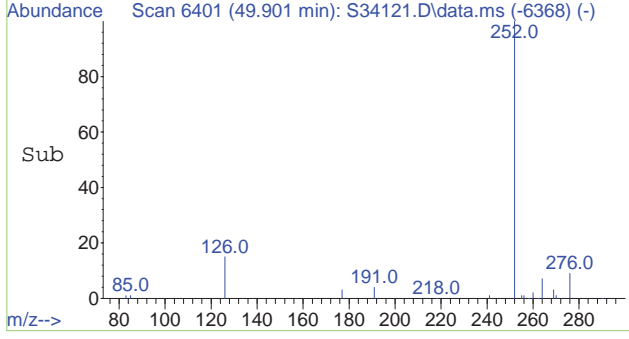


7.1.1  
7



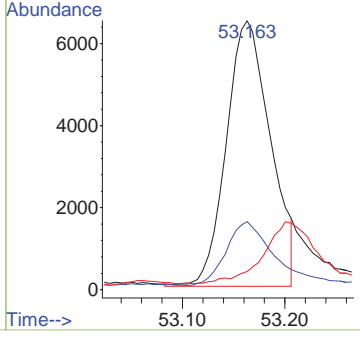
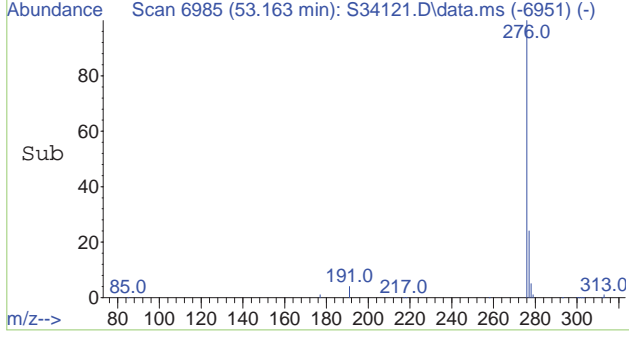
#98  
 Perylene  
 Concen: 31.385 ng/mL  
 RT: 49.901 min Scan# 6401  
 Delta R.T. -0.012 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	252	Resp:	6459
Ion Ratio	100	Lower	Upper
	126	13.6	10.4 15.6

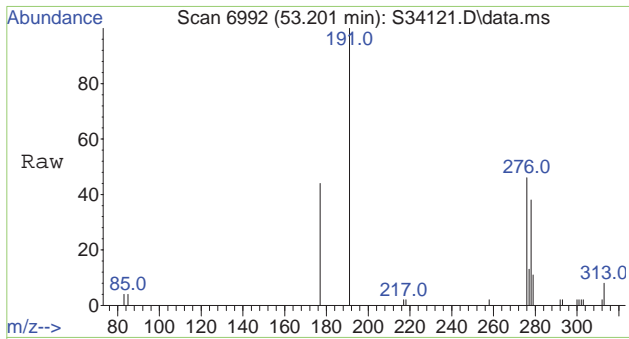


#99  
 Indeno(1,2,3-cd)pyrene  
 Concen: 77.053 ng/mL m  
 RT: 53.163 min Scan# 6985  
 Delta R.T. -0.016 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion:	276	Resp:	19394
Ion Ratio	100	Lower	Upper
	277	27.0	18.9 28.3
	278	0.0	4.7 7.1#

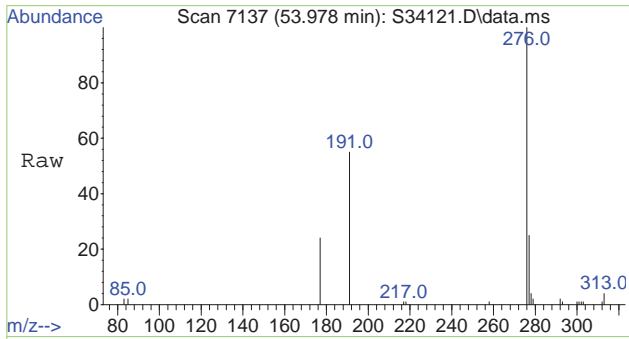
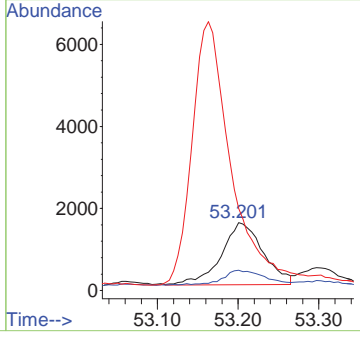
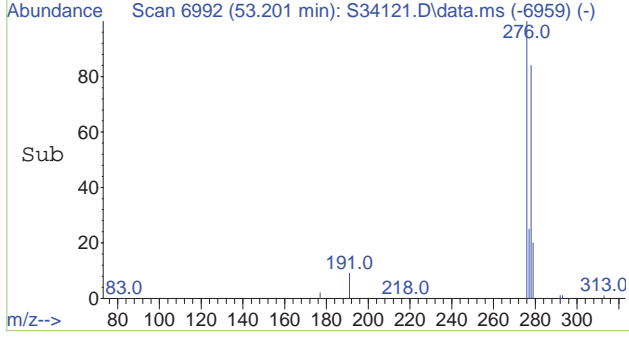


7.1.1  
7



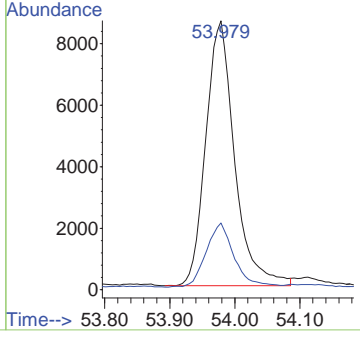
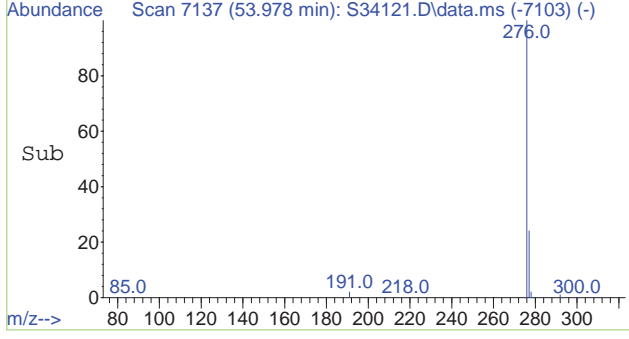
#100  
 Dibenz(a,h)anthracene  
 Concen: 22.421 ng/mL  
 RT: 53.201 min Scan# 6992  
 Delta R.T. -0.022 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
278	100		
279	21.5	19.1	28.7
276	0.0	30.5	45.7#

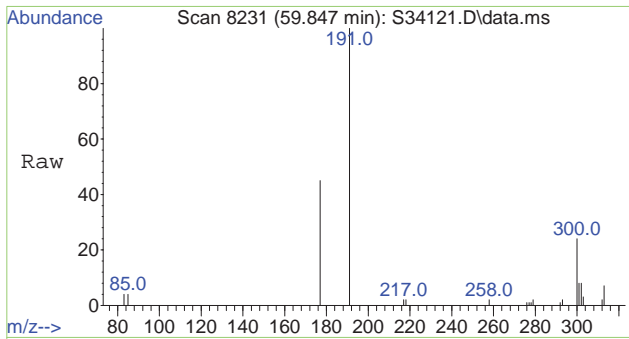


#101  
 Benzo(g,h,i)perylene  
 Concen: 100.628 ng/mL  
 RT: 53.978 min Scan# 7137  
 Delta R.T. -0.016 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
276	100		
277	23.6	18.8	28.2

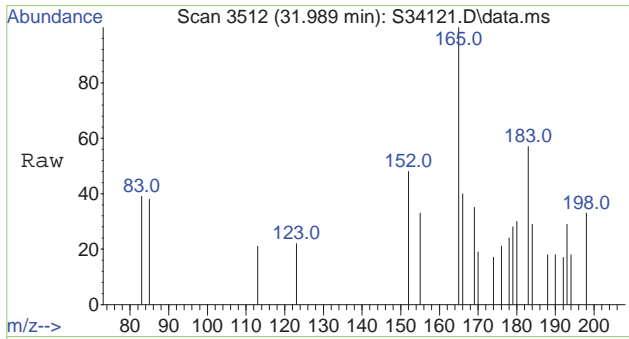
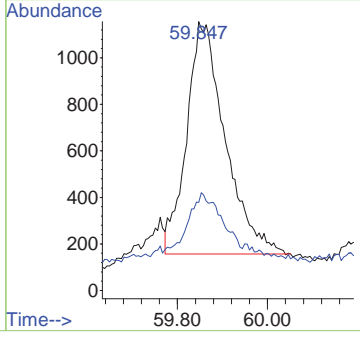
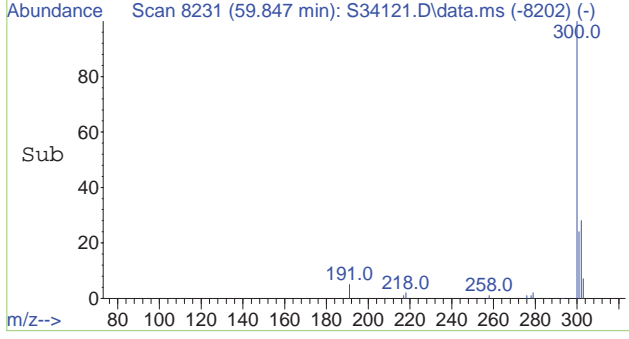


7.1.1  
7



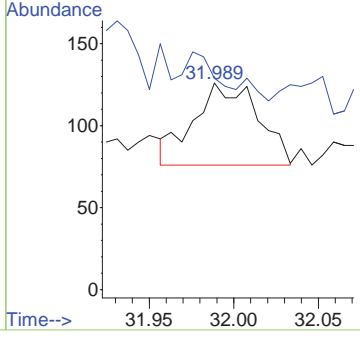
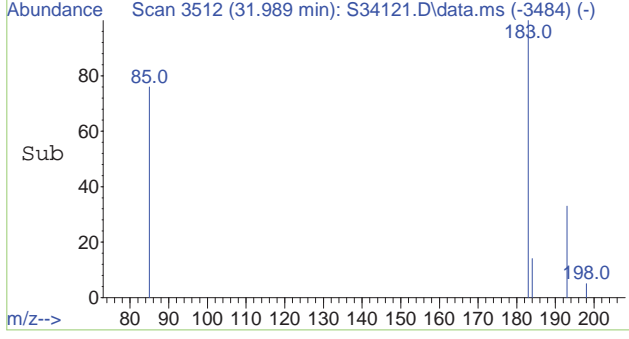
#102  
 Coronene  
 Concen: 23.124 µg/mL  
 RT: 59.847 min Scan# 8231  
 Delta R.T. -0.043 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	300	301	Ratio	Lower	Upper
Resp:	5929				
Ion Ratio	100	19.1		21.0	31.4#



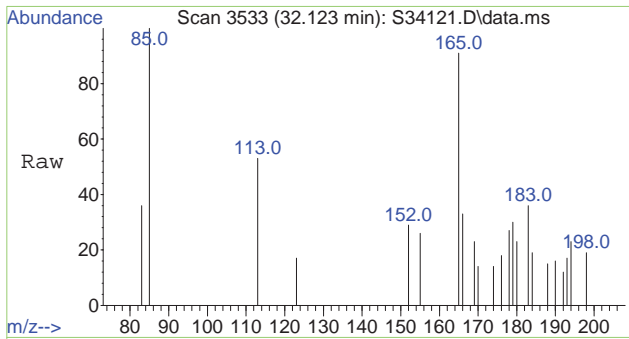
#103  
 C-17  
 Concen: 2.654 µg/mL m  
 RT: 31.989 min Scan# 3512  
 Delta R.T. -0.020 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	85	83	Ratio	Lower	Upper
Resp:	131				
Ion Ratio	100	274.8		13.1	19.7#



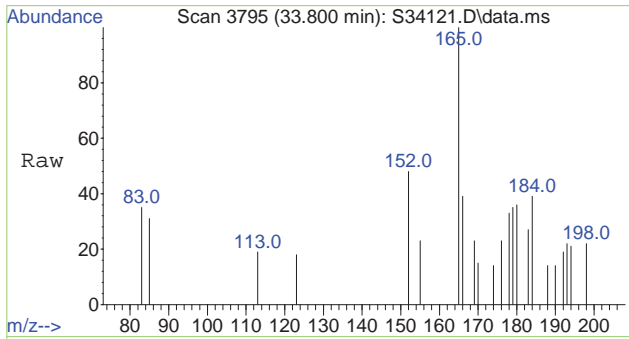
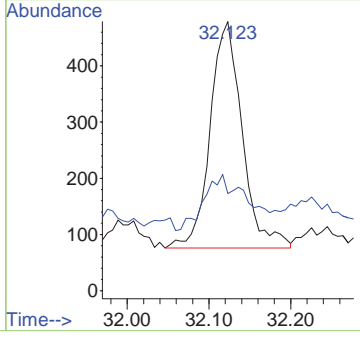
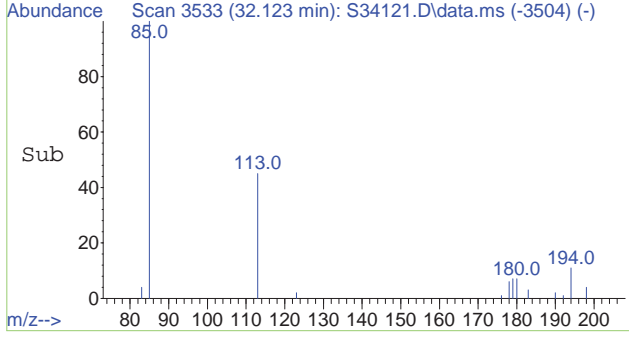
7.1.1  
7





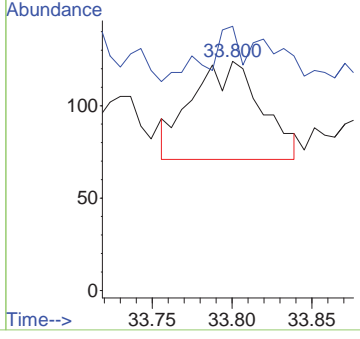
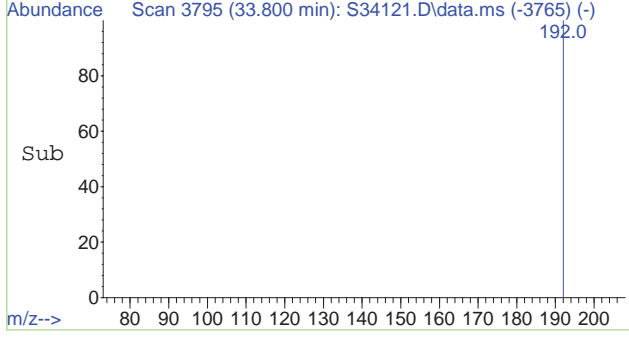
#104  
 Pristane  
 Concen: 29.196 µg/mL  
 RT: 32.123 min Scan# 3533  
 Delta R.T. -0.013 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
85	100		
83	32.7	12.6	18.8#

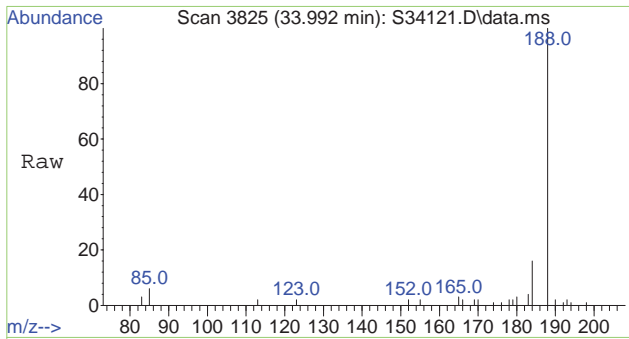


#105  
 C-18  
 Concen: 3.196 µg/mL m  
 RT: 33.800 min Scan# 3795  
 Delta R.T. -0.007 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
85	100		
83	0.0	14.6	21.8#

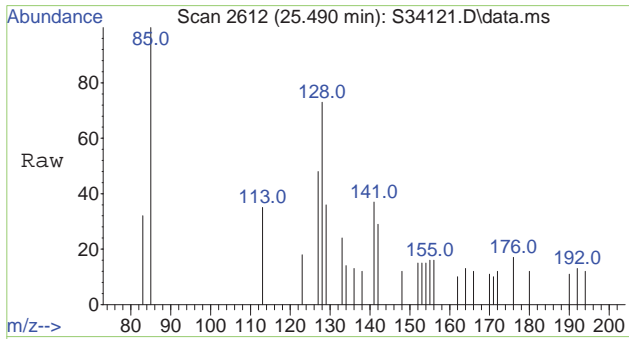
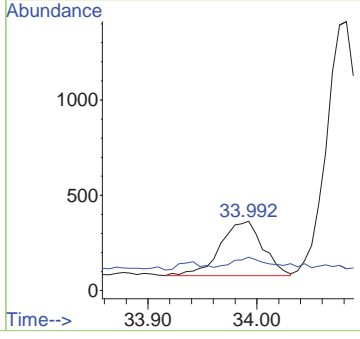
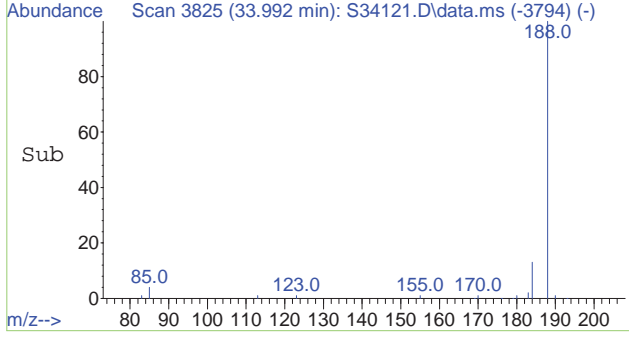


7.1.1  
7



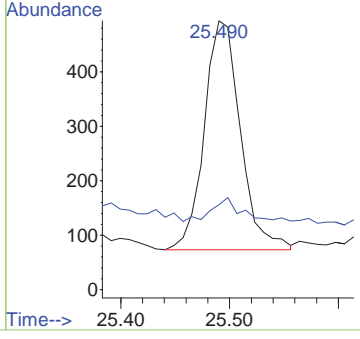
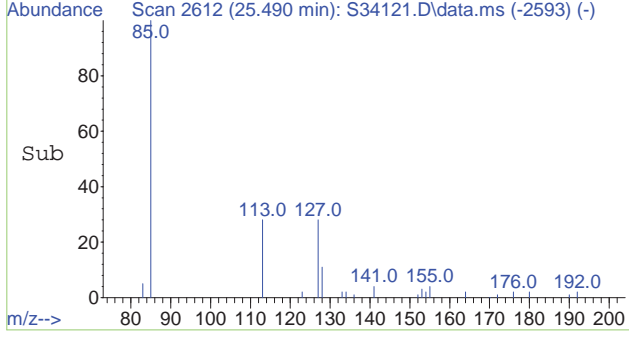
#106  
 Phytane  
 Concen: 14.341 µg/mL  
 RT: 33.992 min Scan# 3825  
 Delta R.T. -0.000 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
85	100		
83	0.0	11.8	17.8#

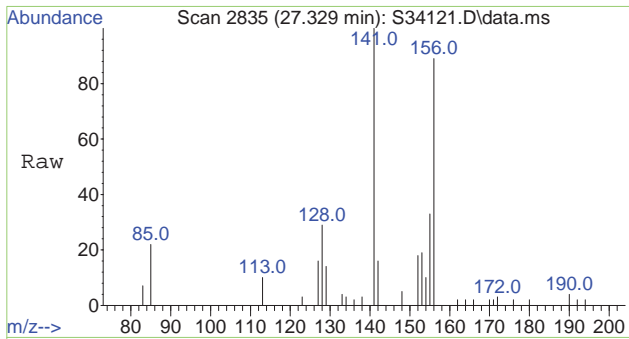


#107  
 2,6,10-Trimethyldodecane (1380)  
 Concen: 18.051 µg/mL  
 RT: 25.490 min Scan# 2612  
 Delta R.T. -0.041 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Ratio	Lower	Upper
85	100		
83	0.0	13.4	20.2#

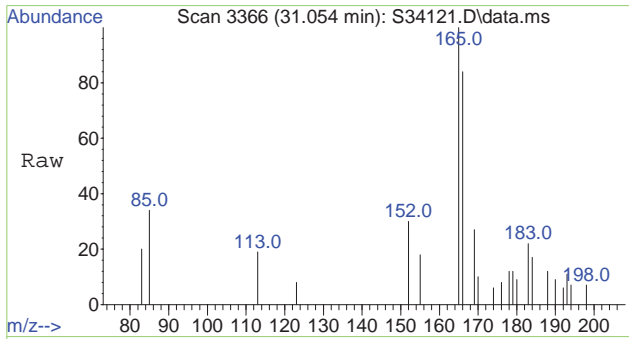
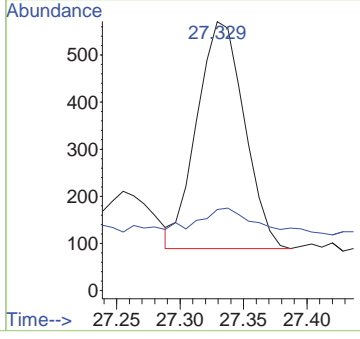
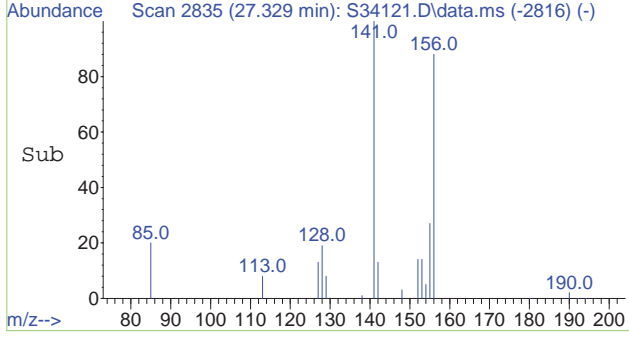


7.1.1  
7



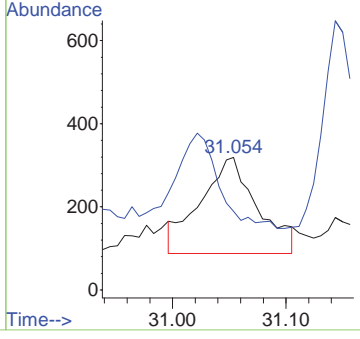
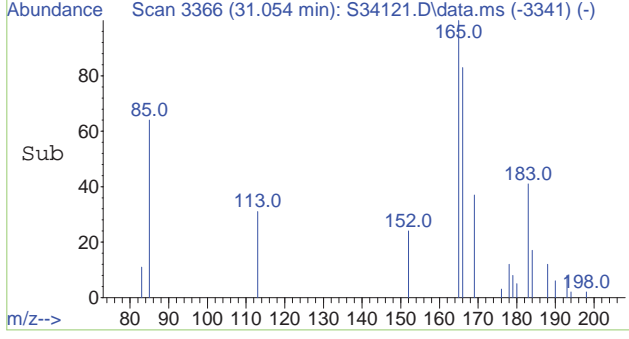
#108  
 2,6,10-Trimethyltridecane (1470)  
 Concen: 23.245 µg/mL  
 RT: 27.329 min Scan# 2835  
 Delta R.T. -0.041 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
85	100		
83	17.6	13.8	20.8



#109  
 2,6,10-Trimethylpentadecane (1650)  
 Concen: 14.934 µg/mL m  
 RT: 31.054 min Scan# 3366  
 Delta R.T. -0.042 min  
 Lab File: S34121.D  
 Acq: 20 Nov 2013 7:05 pm

Tgt Ion	Resp	Lower	Upper
85	100		
83	0.0	20.7	31.1#



7.1.1  
7

Data Path : Z:\1\data\S131120\  
 Data File : S34116.D  
 Acq On : 20 Nov 2013 1:04 pm  
 Operator : RUBENP  
 Sample : op35834-mb  
 Misc : op35834,mss1523,0.01,,,2,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 20 16:15:04 2013  
 Quant Method : Z:\1\methods\S131114-MAHPAHEXT.M  
 Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM  
 QLast Update : Fri Nov 15 10:17:28 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Acenaphthene-d10	28.166	164	85103	1000.00	ng/mL	0.00
System Monitoring Compounds						
2) Toluene-d8	9.271	98	93898	1082.75	µg/mL	-0.03
Spiked Amount	1000.000				Recovery = 108.28%	
3) Naphthalene-d8	21.218	136	146371	904.10	ng/mL	0.00
Spiked Amount	1000.000	Range 1 - 0			Recovery = 90.41%#	
4) Phenanthrene-d10	33.999	188	136050	878.03	ng/mL	0.00
Spiked Amount	1000.000				Recovery = 87.80%	
5) Perylene-d12	49.828	264	118424	875.27	ng/mL	0.00
Spiked Amount	1000.000				Recovery = 87.53%	
Target Compounds						
7) Benzene	6.844	78	4270	46.095	µg/mL#	1
61) C1-Dibenzothiophenes (...)	35.819	198	14508	76.060	µg/mL	97
69) C2-Phenanthrenes/anthr...	38.058	206	7926	40.686	µg/mL	89

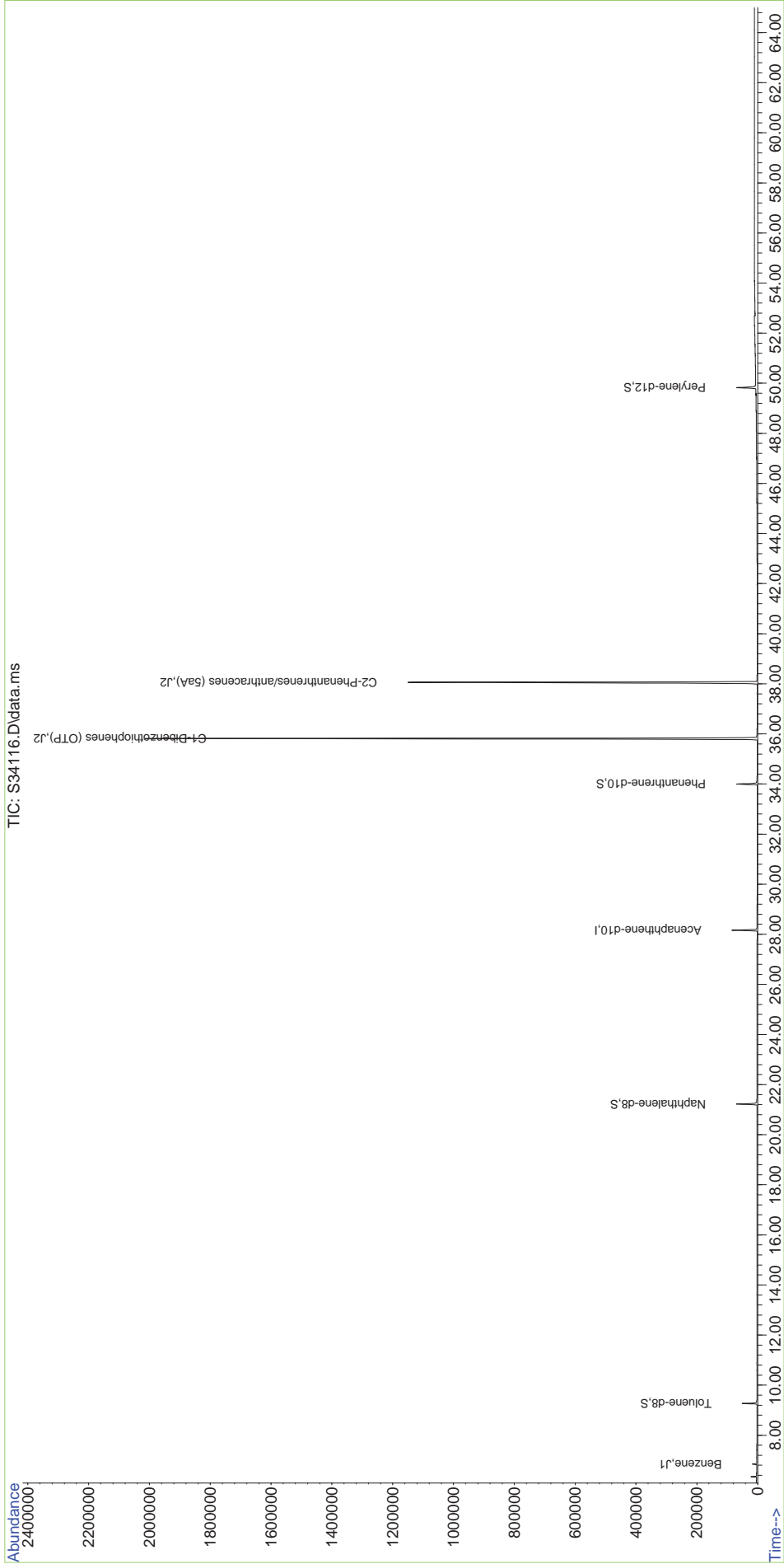
(#) = qualifier out of range (m) = manual integration (+) = signals summed

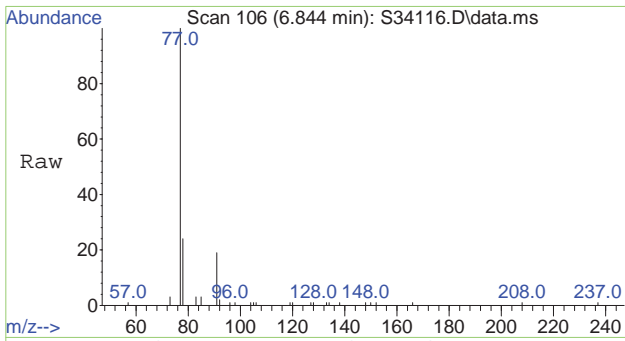
7.2.1  
7

Quantitation Report (QT Reviewed)

Data Path : Z:\1\data\S131120\  
 Data File : S34116.D  
 Acq On : 20 Nov 2013 1:04 pm  
 Operator : RUBENP  
 Sample : op35834-mb  
 Misc : op35834,mss1523,0.01,,,2,,1  
 ALS Vial : 3 Sample Multiplier: 1

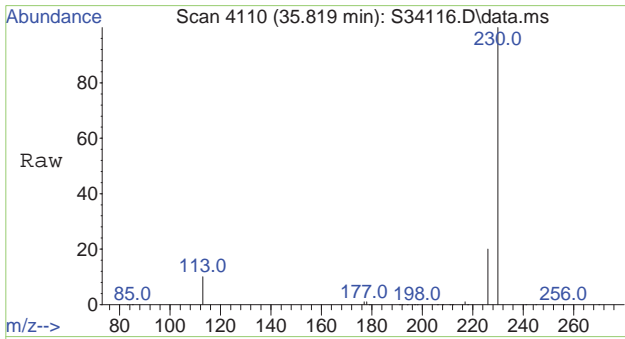
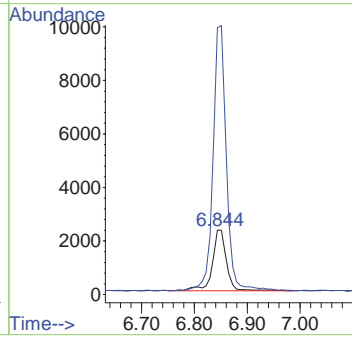
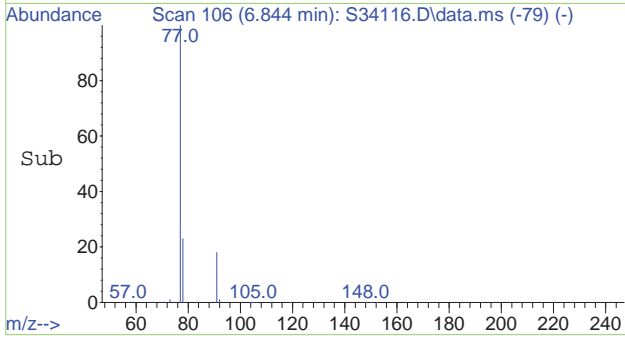
Quant Time: Nov 20 16:15:04 2013  
 Quant Method : Z:\1\methods\S131114-MAHPAHEXT.M  
 Quant Title : PAHs & Alkylated PAHs by GC/MS/SIM  
 QLast Update : Fri Nov 15 10:17:28 2013  
 Response via : Initial Calibration





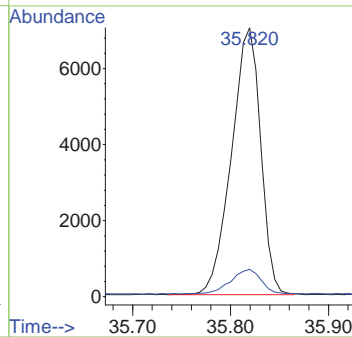
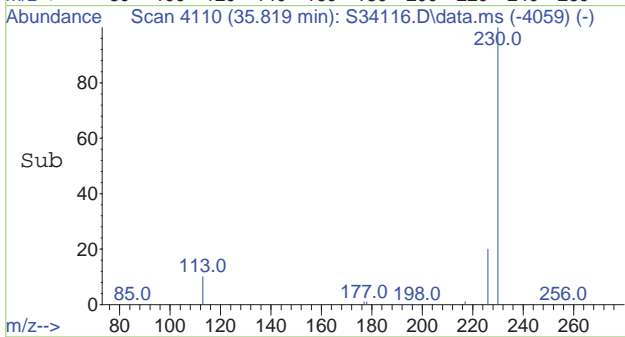
#7  
 Benzene  
 Concen: 46.095 µg/mL  
 RT: 6.844 min Scan# 106  
 Delta R.T. -0.007 min  
 Lab File: S34116.D  
 Acq: 20 Nov 2013 1:04 pm

Tgt Ion	Resp	Lower	Upper
78	4270	100	
77	407.8	19.5	29.3#

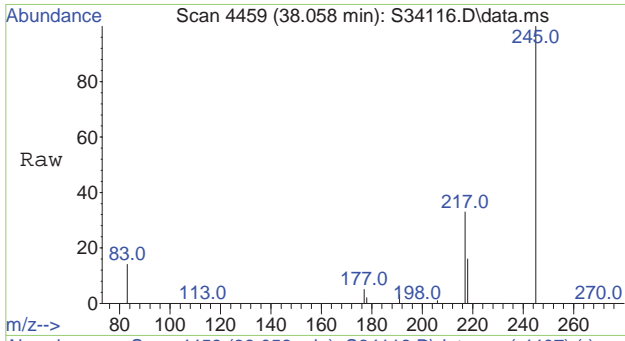


#61  
 Cl-Dibenzothiophenes (OTP)  
 Concen: 76.060 µg/mL  
 RT: 35.819 min Scan# 4110  
 Delta R.T. 0.126 min  
 Lab File: S34116.D  
 Acq: 20 Nov 2013 1:04 pm

Tgt Ion	Resp	Lower	Upper
198	14508	100	
197	9.3	8.4	12.6

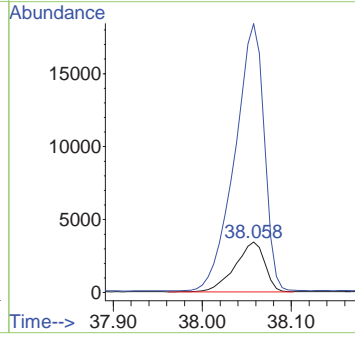
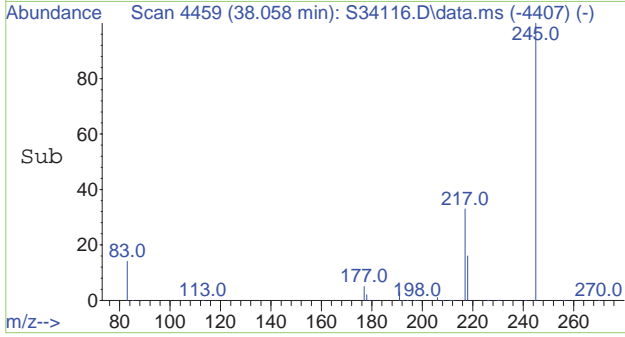


7.2.1  
7



#69  
 C2-Phenanthrenes/anthracenes (5aA)  
 Concen: 40.686 µg/mL  
 RT: 38.058 min Scan# 4459  
 Delta R.T. 0.132 min  
 Lab File: S34116.D  
 Acq: 20 Nov 2013 1:04 pm

Tgt Ion	Ratio	Lower	Upper
206	100		
191	531.6	451.6	677.4



7.2.1  
7

## GC Semi-volatiles

---

### QC Data Summaries



---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries



**Method Blank Summary**

Page 1 of 1

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35833-MB	BG42071.D	1	11/19/13	RP	11/19/13	OP35833	GBG1601

The QC reported here applies to the following samples:

Method: ASTM D3328-06

MC26103-1

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	20000	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	101% 40-140%

8.1.1

8

# Blank Spike Summary

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35833-BS1	BG42072.D	1	11/19/13	RP	11/19/13	OP35833	GBG1601

The QC reported here applies to the following samples:

Method: ASTM D3328-06

MC26103-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C8-C40)		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	101%	40-140%

8.2.1  
8

\* = Outside of Control Limits.

## Duplicate Summary

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35833-DUP1	BG42081.D	1	11/20/13	RP	11/19/13	OP35833	GBG1601
MC26103-1 <sup>a</sup>	BG42080.D	1	11/20/13	RP	11/19/13	OP35833	GBG1601

The QC reported here applies to the following samples:

Method: ASTM D3328-06

MC26103-1

CAS No.	Compound	MC26103-1 DUP		RPD	Limits
		mg/kg	Q		
	TPH (C8-C40)	2510000	2320000	8	30

CAS No.	Surrogate Recoveries	DUP	MC26103-1	Limits
84-15-1	o-Terphenyl	445% * b	430% * b	40-140%

- (a) Sample extracted beyond the recommended holding time for soils.
- (b) Outside control limits due to dilution.

8.3.1  
8

\* = Outside of Control Limits.

## Semivolatile Surrogate Recovery Summary

**Job Number:** MC26103  
**Account:** METAMAW META Environmental, Inc.  
**Project:** Parsons, Halleck Street, NJ

<b>Method:</b> ASTM D3328-06	<b>Matrix:</b> SO
------------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
MC26103-1	BG42080.D	430.0* <sup>b</sup>
OP35833-BS1	BG42072.D	101.0
OP35833-DUP1	BG42081.D	445.0* <sup>b</sup>
OP35833-MB	BG42071.D	101.0

Surrogate Compounds	Recovery Limits
------------------------	--------------------

S1 = o-Terphenyl	40-140%
------------------	---------

- (a) Recovery from GC signal #1  
(b) Outside control limits due to dilution.

GC Semi-volatiles

---

Raw Data

---

Data Path : G:\1\DATA\BG131119\  
Data File : BG42080.d  
Signal(s) : FID1A.ch  
Acq On : 20 Nov 2013 4:01 am  
Operator : RubenP  
Sample : MC26103-1  
Misc : OP35833,GBG1601,0.0022,,,10,1  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 22 10:19:51 2013  
Quant Method : G:\1\METHODS\BG130925ALK-Front.m  
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids  
Response via : Initial Calibration

Compound	R.T.	Response	Conc Units
-----			
Internal Standards			
1) I 5a-Androstane	31.102	136871228	50.000 µg/mL
System Monitoring Compounds			
2) S o-Terphenyl	29.101	61777629	21.491 µg/mL
Spiked Amount 25.000		Recovery =	85.96%
Target Compounds			
41) H TPH (C8-C40)	30.880	1450898006	551.605 µg/mLm
SemiQuant Compounds - Not Calibrated on this Instrument			
-----			

(f)=RT Delta > 1/2 Window

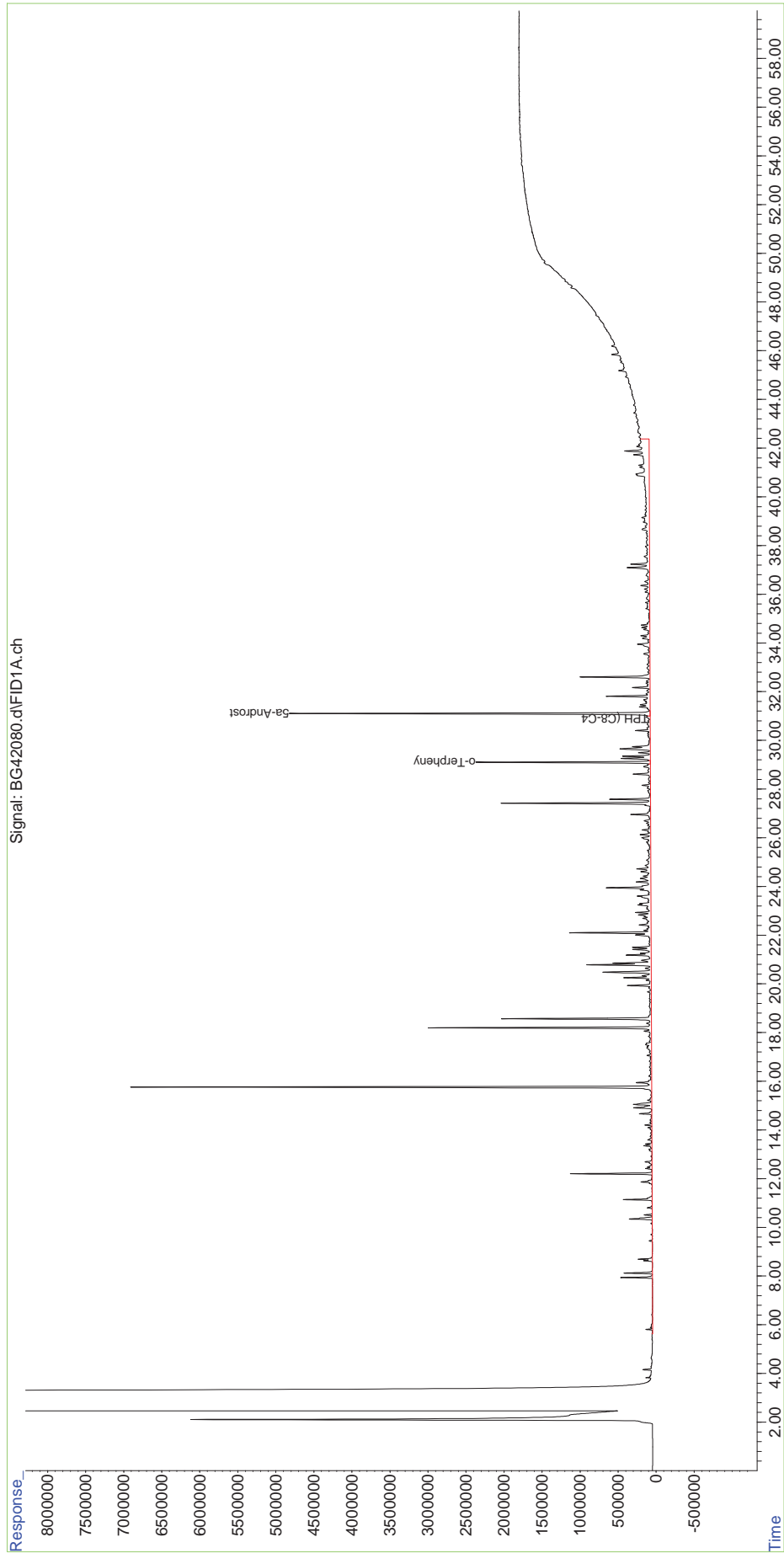
(m)=manual int.

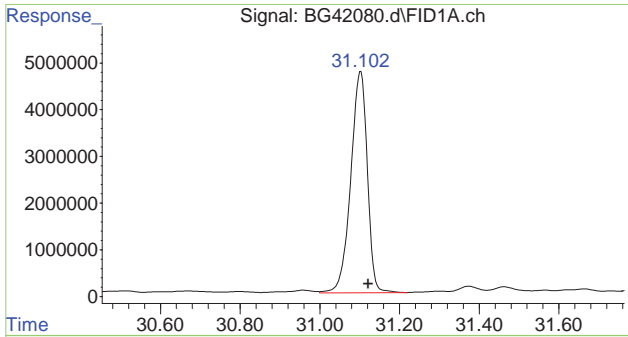
9.1.1  
9

Quantitation Report (QT Reviewed)

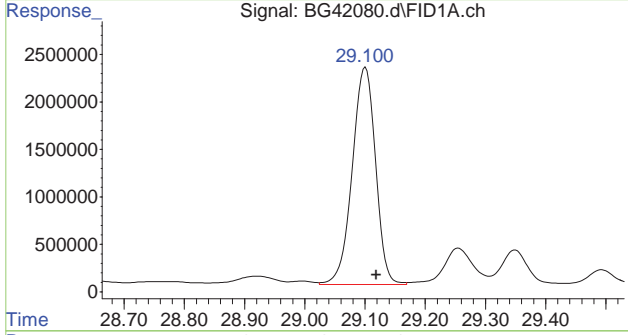
Data Path : G:\1\DATA\BG1311119\  
Data File : BG42080.d  
Signal(s) : FID1A.ch  
Acq On : 20 Nov 2013 4:01 am  
Operator : RubenP  
Sample : MC26103-1  
Misc : OP35833,BGG1601,0.0022,,,10,1  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 22 10:19:51 2013  
Quant Method : G:\1\METHODS\BG130925ALK-Front.m  
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids  
Response via : Initial Calibration

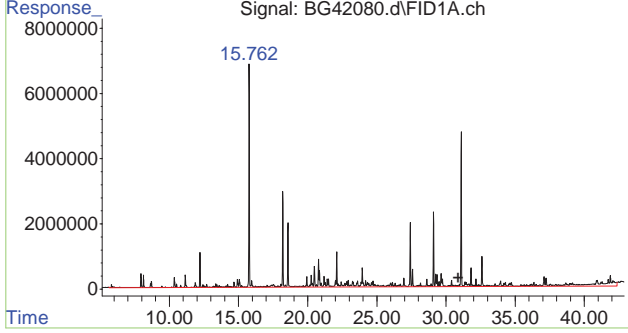




#1 5a-Androstane  
R.T.: 31.102 min  
Delta R.T.: -0.019 min  
Response: 136871228  
Conc: 50.00 µg/mL



#2 o-Terphenyl  
R.T.: 29.101 min  
Delta R.T.: -0.018 min  
Response: 61777629  
Conc: 21.49 µg/mL



#41 TPH (C8-C40)  
R.T.: 30.880 min  
Delta R.T.: 0.000 min  
Response: 1450898006  
Conc: 551.61 µg/mL m

9.1.1  
9



Data Path : G:\1\DATA\BG131119\  
 Data File : BG42071.d  
 Signal(s) : FID1A.ch  
 Acq On : 19 Nov 2013 6:03 pm  
 Operator : RubenP  
 Sample : op35833-MB  
 Misc : OP35833,GBG1601,0.01,,,2,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 20 13:50:21 2013  
 Quant Method : G:\1\METHODS\BG130925ALK-Front.m  
 Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids  
 Response via : Initial Calibration

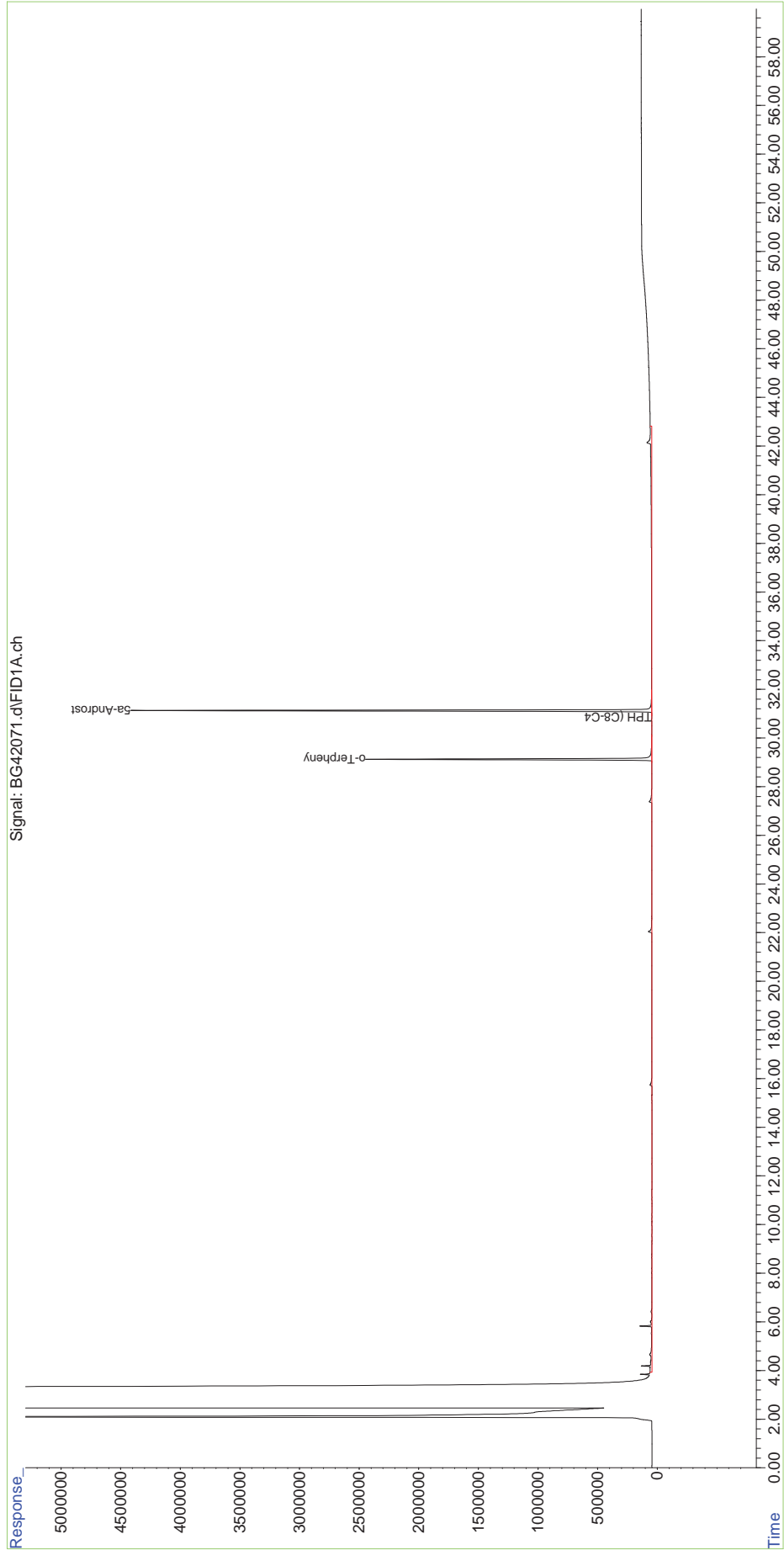
Compound	R.T.	Response	Conc Units
-----			
Internal Standards			
1) I 5a-Androstane	31.132	127120354	50.000 µg/mL
System Monitoring Compounds			
2) S o-Terphenyl	29.127	67666792	25.345 µg/mL
Spiked Amount 25.000		Recovery =	101.38%
Target Compounds			
41) H TPH (C8-C40)	30.880	75556542	30.929 µg/mLm
SemiQuant Compounds - Not Calibrated on this Instrument			
-----			
(f)=RT Delta > 1/2 Window		(m)=manual int.	

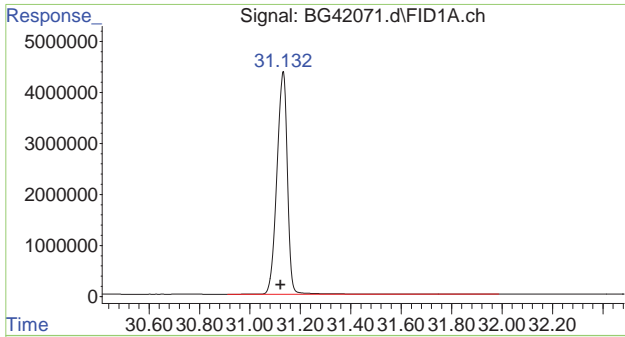
9.2.1  
9

Quantitation Report (QT Reviewed)

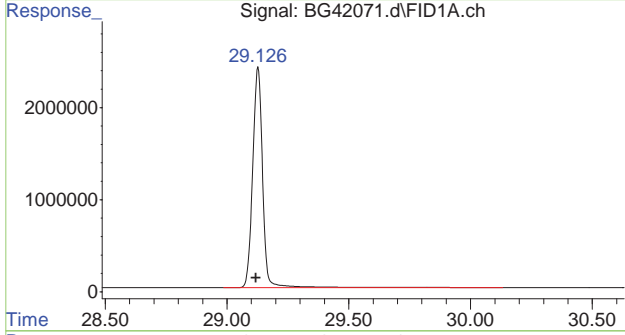
Data Path : G:\1\DATA\BG131119\  
Data File : BG42071.d  
Signal(s) : FID1A.ch  
Acq On : 19 Nov 2013 6:03 pm  
Operator : RubenP  
Sample : OP35833-MB  
Misc : OP35833,GBG1601,0.01,,2,1  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 20 13:50:21 2013  
Quant Method : G:\1\METHODS\BG130925ALK-Front.m  
Quant Title : n-C8 - n-C40 normal alkanes w/ isoprenoids  
Response via : Initial Calibration

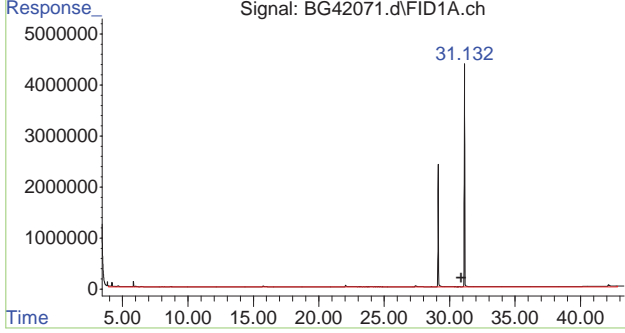




#1 5a-Androstane  
 R.T.: 31.132 min  
 Delta R.T.: 0.011 min  
 Response: 127120354  
 Conc: 50.00 µg/mL



#2 o-Terphenyl  
 R.T.: 29.127 min  
 Delta R.T.: 0.009 min  
 Response: 67666792  
 Conc: 25.35 µg/mL



#41 TPH (C8-C40)  
 R.T.: 30.880 min  
 Delta R.T.: 0.000 min  
 Response: 75556542  
 Conc: 30.93 µg/mL m

9.2.1  
**9**