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Seattle, Washington 98101
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May 18, 2016

Port of Anacortes
100 Commercial Avenue
Anacortes, Washington 98221

Attention: Becky Darden

Subject: Remedial Soil Excavation
Anthony's Café Development Project
Cap Sante Marine Site
Anacortes, Washington
File No. 5147-005-11

INTRODUCTION

This letter documents the results of the contaminated soil excavation activities completed during the Anthony's Café Development Project located at 1207 Q Avenue in Anacortes, Washington. Anthony's is currently leasing the property from the Port of Anacortes (Port) which is the location of a previous Interim Action Cleanup completed in 2007 for the Cap Sante Marine Site (Site; Ecology Facility/Site Identification No. 67532227). The Site is shown relative to surrounding features on Figure 1. The Anthony's Café Development Project Area is shown relative to the previously completed interim action area on Figure 2.

The Anthony's Café Development (when completed) will consist of an outdoor seating area connected to the existing Anthony's Restaurant. Construction activities for the new café included excavation and grading of soils for the installation of new utilities and building foundations to support the development. On July 14, 2015, the general contractor for the Anthony's Café Development Project (Wilcox Construction) encountered an area of stained soil that produced a petroleum odor while excavating a trench to access an existing storm drain utility line. Excavation activities at this location were stopped following the discovery of the potentially contaminated soil and notification was made to the Port of the discovery. Given the need to avoid delay to the construction, the Port mobilized GeoEngineers, Inc. (GeoEngineers) to the Site on July 16, 2015 to evaluate the nature and extent of the stained soil with petroleum odor. Cleanup actions completed to characterize, excavate and verify the removal of the petroleum contaminated soil are summarized below.



REMEDIAL EXCAVATION ACTIVITIES

Initial Remedial Excavation Activities and Soil Characterization Results

GeoEngineers assisted Wilcox Construction in the segregation and excavation of soil with field screening evidence of petroleum contamination. Field screening methods are presented in Attachment A. Using a tracked excavator operated by Wilcox Construction, an excavation measuring approximately 5 feet long by 5 feet wide was completed from 3 feet to 7.5 feet below ground surface (bgs). Approximately 10 cubic yards of material generated by the initial excavation was stockpiled on site away from the main construction area. The excavated soil was placed on 10 mil plastic sheeting and covered to secure the contaminated material from rain, wind or other disturbance pending characterization. Field screening evidence of petroleum contaminated soil was not observed at the limit of the initial excavation. No potential source (i.e., underground storage tank, product piping, drums, etc.) was identified for the stained soil. Groundwater was not encountered within the initial excavation limit.

Soil sample PCS-1 obtained from the excavation area yielding the highest field screening evidence of petroleum contamination was submitted to OnSite Environmental Inc. (OnSite) of Redmond, Washington for chemical analysis to characterize the soil and to support application for a landfill facility waste disposal authorization. Soil samples EX-1-7.5 through EX-4-6 were obtained from the limit of the initial excavation to verify the removal of soil represented by soil sample PCS-1. Based on location of the discovery relative to the interim action area and results of previous environmental studies completed for the Cap Sante Marine Site, characterization soil sample PCS-1 and verification soil samples EX-1-7.5 through EX-5-6 were submitted for chemical analysis of previously identified contaminants of concern (COCs), including:

- Gasoline-range petroleum hydrocarbons by NWTPH-G;
- Diesel- and heavy oil-range petroleum hydrocarbons by NWTPH-Dx;
- Benzene, ethylbenzene, toluene and xylenes (BETX) by United States Environmental Protection Agency (EPA) method 8260; and
- Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270 SIM.

Field screening and chemical analytical results for characterization soil sample PCS-1 and verification soil samples EX-1-7.5 through EX-4-6 are summarized in Table 1. Chemical analysis indicated the presence of gasoline-, diesel-range and oil-range petroleum hydrocarbons and benzene at concentrations exceeding site-specific cleanup levels established by Washington State Department of Ecology's (Ecology's) Cleanup Action Plan for the Cap Sante Marine Site (Ecology, 2013) in soil sample PCS-1 obtained to characterize the soil and to support application for a landfill facility waste disposal authorization. Contaminants either were not detected or were detected at concentrations less than site-specific cleanup levels in soil samples obtained from the base and initial excavation sidewalls, with one exception. Gasoline-range petroleum hydrocarbons were detected in soil sample EX-2-6 obtained from the western excavation sidewall.

Supplemental excavation activities to remove soil represented by sample EX-2-6 are summarized below. Soil samples obtained to support landfill disposal authorization and from the initial remedial excavation limit are shown on Figure 3. A copy of the laboratory report for soil samples PCS-1 and EX-1-7.5 through EX-4-6 is presented in Attachment B.



Supplemental Excavation Activities and Confirmation Soil Sample Results

Based on chemical analytical results from the initial remedial excavation limit, additional soil removal activities were completed on July 21, 2015 to over-excavate soil represented by sample EX-2-6. The supplemental excavation measured approximately 5 feet long by 3 feet wide and ranged in depth between 3 and 7.5 feet bgs. Field screening evidence of petroleum contamination was not observed at the limit of the supplemental remedial excavation limit. Material generated by the supplemental remedial excavation, approximately 5 cubic yards, was added to the existing soil stockpile generated by the initial remedial excavation. The contaminated soil stockpile was covered and secured pending permitted landfill disposal.

GeoEngineers obtained soil sample EX-5-6 from the new western excavation limit sidewall for chemical analysis. Soil sample EX-5-6 was submitted to OnSite for chemical analysis of gasoline-range petroleum hydrocarbons by NWTPH-G. Gasoline-range petroleum hydrocarbons were not detected in soil sample EX-5-6 obtained to verify the removal of soil represented by sample EX-2-6.

Soil sample EX-5-6 obtained from the supplemental remedial excavation limit is shown on Figure 3. A copy of the laboratory report for soil sample EX-5-6 is presented in Attachment B.

Waste Disposal

Based on the characterization results for soil sample PCS-1, excavated soil was accepted for landfill disposal at Waste Management's (WM) landfill facility located in Arlington, Oregon. A total of approximately 15 cubic yards of soil (21.54 tons) was transported from the site to WM on August 18, 2015 for permitted disposal. A Copy of the tipping receipt documenting delivery of contaminated soil to the landfill is attached (Attachment C).

CONCLUSIONS

At the request of the Port of Anacortes, GeoEngineers remained on Site to oversee the remaining soil excavation activities associated with the Anthony's Café Development Project which concluded on November 4, 2015. These activities included soil excavation for an oil/grease interceptor vault and associated piping in the western portion of the Anthony's Café Development Project area, and utility trench extending west toward Q Avenue (Figure 2). No additional contamination was identified during these excavation activities.

Based on the field observations, field screening and chemical analytical results, cleanup activities associated with the localized petroleum-related contamination observed at the Site were successfully completed. Soils remaining at the site at the perimeter of the affected area have been demonstrated to meet the cleanup levels that have been established for the Cap Sante Marine Site. Groundwater monitoring completed at the Site prior to the discovery of the subject soils (GeoEngineers, 2009) demonstrated that the contaminated soil did not adversely impact groundwater quality.

As a result of the completeness of the cleanup action, further environmental measures associated with the identified contaminated soils at the site are unnecessary, and no further cleanup actions are recommended.



LIMITATIONS

This report has been prepared for the exclusive use of the Port of Anacortes, their authorized agents and regulatory agencies in their evaluation of the cleanup action completed for the Anthony's Café Development Project located in Anacortes, Washington. No other party may rely on the product of our services unless we agree in advance and in writing to such reliance.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions express or implied should be understood. Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

REFERENCES

GeoEngineers, Inc., "December 2009 Compliance Groundwater Monitoring, Cap Sante Marine, Ecology Agreed Order No. DE-07TCPHQ-4197, Anacortes, Washington," GEI File No. 5147-005-03, December 23, 2009.

Washington State Department of Ecology (Ecology), "Cleanup Action Plan (CAP), Cap Sante Marine Site, Anacortes, Washington," Washington State Department of Ecology, Toxics Cleanup Program, Lacey, Washington, December 10, 2013.

We appreciate the opportunity to provide these services to the Port of Anacortes. Please contact us if you have questions regarding this study.

Sincerely,

GeoEngineers, Inc.



Robert Trahan
Senior Environmental Scientist



John Herzog, PhD
Principal

RST:JMH:cam:leh

Attachments:

Table 1. Summary of Soil Field Screening Results and Chemical Analytical Data

Figure 1. Vicinity Map

Figure 2. Site Plan

Figure 3. Remedial Excavation and Soil Sample Locations

Attachment A. Field Methods

Attachment B. Chemical Analytical Program

Attachment C. Soil Disposal Receipt

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.



Table 1
Summary of Soil Field Screening and Chemical Analytical Data
 Anthony's Café Development Project
 Anacortes, Washington

Sample ID ¹	PCS-1-6 ²	EX-1-7.5	EX-2-6 ²	EX-3-6	EX-4-6	EX-5-6	Soil Cleanup Level ³
Sample Date	7/16/2015	7/16/2015	7/16/2015	7/16/2015	7/16/2015	7/21/2015	
Sample Depth (ft bgs)	6	7.5	6	6	6	6	
Sample Elevation (ft)	10.33	8.83	10.33	10.33	10.33	10.33	
Field Screening							
Sheen	NS	NS	NS	NS	NS	NS	N/A
Headspace Vapor (ppm)	>800	3.9	9.6	10.2	5.1	<1	N/A
Petroleum Hydrocarbons by NWTPH-G or NWTPH-Dx (mg/kg)							
Gasoline-Range	2,100	12 U	77	8.8 U	5.8 U	5.8 U	30/100 ⁴
Diesel-Range	2,600	45 U	50 U	36 U	27 U	–	2,000
Oil-Range	3,600	170	100	72 U	54 U	–	2,000
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)							
Benzene	0.96	0.024 U	0.083	0.2	0.02 U	–	0.29
Ethylbenzene	9.8	0.12 U	0.14	0.088 U	0.058 U	–	16
Toluene	0.15 U	0.12 U	0.074 U	0.088 U	0.058 U	–	109
Xylenes	12.14	0.12 U	0.58	0.088 U	0.058 U	–	160,000
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)							
Naphthalene	6.6	0.04	1.7	0.083	0.042	–	138
2-Methylnaphthalene	11	0.012 U	1.1	0.0096 U	0.072	–	NE
1-Methylnaphthalene	4.8	0.012 U	0.64	0.0096 U	0.032	–	NE
Acenaphthylene	0.18 U	0.012 U	0.011	0.0096 U	0.0072 U	–	NE
Acenaphthene	0.18 U	0.012 U	0.01	0.0096 U	0.0072 U	–	66
Fluorene	0.18 U	0.012 U	0.0093 U	0.0096 U	0.0072 U	–	547
Phenanthrene	0.23	0.015	0.052	0.026	0.0072 U	–	NE
Anthracene	0.18 U	0.012 U	0.011	0.0096 U	0.0072 U	–	12,285
Fluoranthene	0.18 U	0.013	0.079	0.022	0.0072 U	–	89
Pyrene	0.18 U	0.014	0.08	0.024	0.0072 U	–	2,400
Benzo[a]anthracene	0.18 U	0.012 U	0.036	0.01	0.0072 U	–	NE
Chrysene	0.18 U	0.012 U	0.041	0.0096 U	0.0072 U	–	NE
Benzo[b]fluoranthene	0.018	0.012 U	0.05	0.0096 U	0.0072 U	–	NE
Benzo[j,k]fluoranthene	0.009 U	0.012 U	0.015	0.0096 U	0.0072 U	–	NE
Benzo[a]pyrene	0.011	0.012 U	0.034	0.0096 U	0.0072 U	–	0.137
Indeno(1,2,3-c,d)pyrene	0.0095	0.012 U	0.028	0.0096 U	0.0072 U	–	NE
Dibenz[a,h]anthracene	0.009 U	0.012 U	0.0093 U	0.0096 U	0.0072 U	–	NE
Benzo[g,h,i]perylene	0.018	0.012 U	0.025	0.0096 U	0.0072 U	–	NE
Total cPAHs (TEQ) ⁵	0.025 T	0.009 UT	0.0478 T	0.008 T	0.005 UT	–	0.137

Notes:

¹Sample locations are shown on Figure 3.

²Soil represented by this sample was subsequently excavated and removed from the property for permitted disposal.

³Soil cleanup levels referenced from the Interim Action Work Plan (GeoEngineers, 2007).

⁴Gasoline cleanup level is 30 mg/kg if benzene is present.

⁵Total carcinogenic PAHs (cPAHs) calculated using toxic equivalent (TEQ) methodology relative to benzo(a)pyrene. cPAHs that were not detected were assigned a value of one half of the reporting limit for these calculations.

mg/kg = milligrams per kilograms

U = Not detected above laboratory reporting limit

J = Estimated Value

N/A = not applicable

NE = not established

Bold indicates analyte was detected.

Shading indicates analyte was detected at a concentration above the Soil Cleanup Level.

Path: P:\515147005\GIS\514700511_VicinityMap.mxd Map Revised: 04 December 2015 maugust



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: ESRI Data & Maps

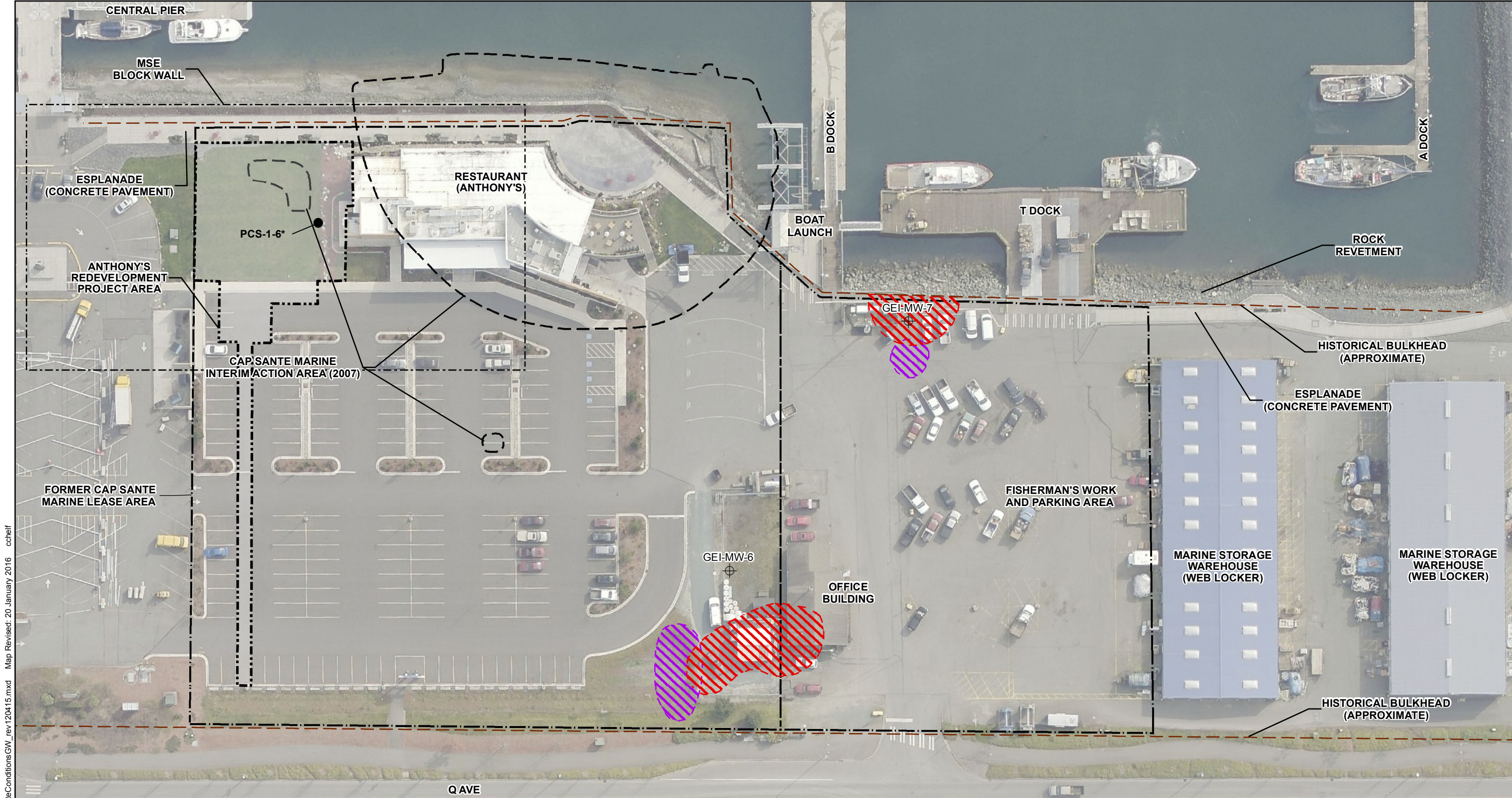
Projection: NAD 1983 UTM Zone 10N

Vicinity Map

**Anthony's Cafe Development Project
Anacortes, Washington**



Figure 1



Data Source: Base aerial provided by the Port of Anacortes, March 2013.
Skagit County GIS.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. Sampling locations in the vicinity of the areas identified to contain COCs exceeding site cleanup levels are shown on this figure.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Legend

⊕ Monitoring Well Location

● PCS-1-6 Soil Characterization Sample Location (Soil represented by this sample was subsequently excavated and removed from the Site for permitted disposal).

[---] Project Area (See Figure 3 for Detail)

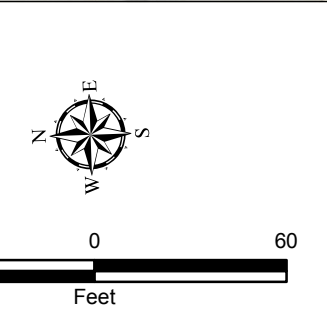
Areas With Contaminant of Concern (COCs) Exceeding Soil Cleanup Level

⚡ Approximate Area of TPH Exceedance in Soil

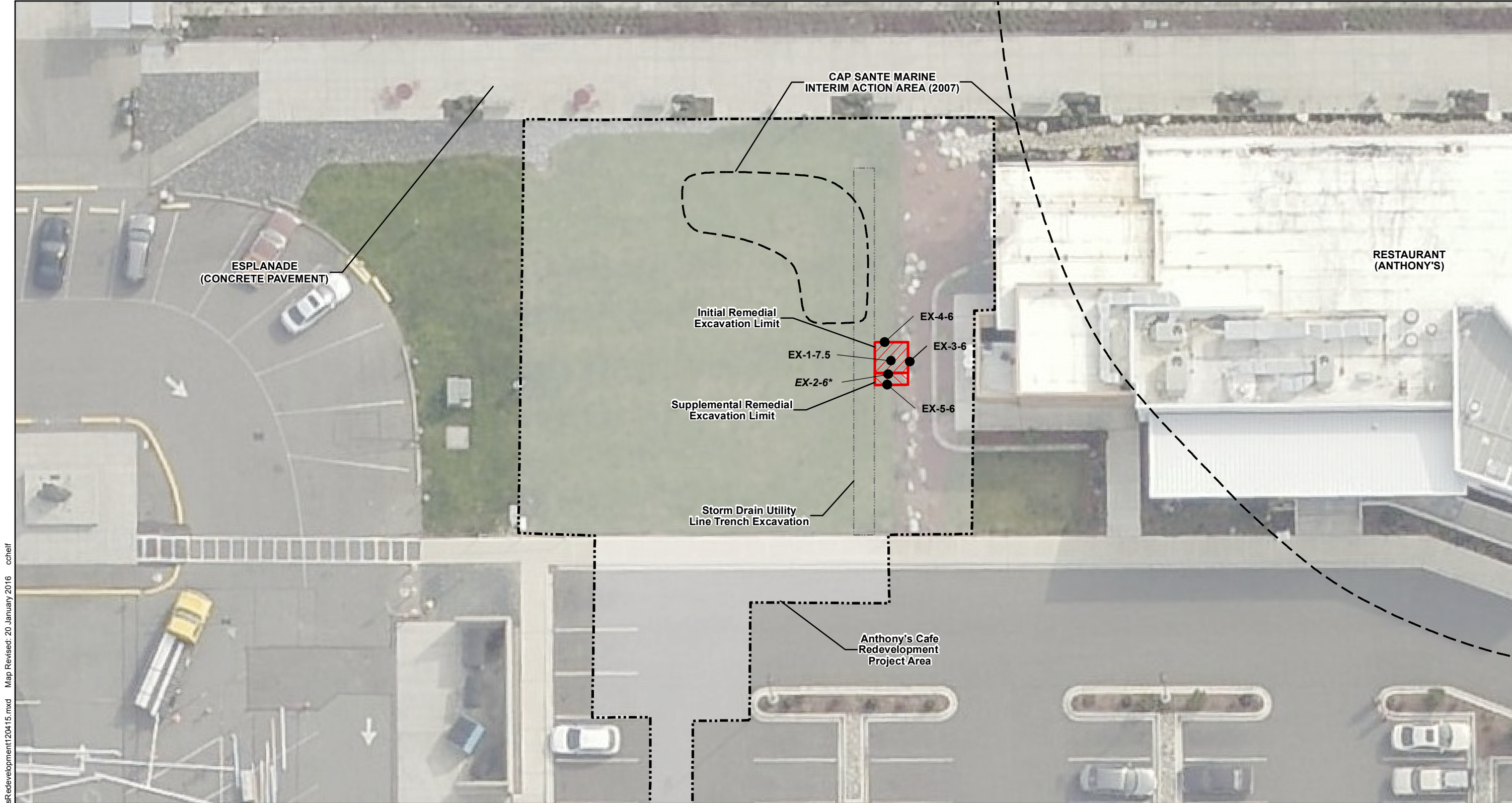
⚡ Approximate Area of PAH Exceedance in Soil

PAH - Polycyclic Aromatic Hydrocarbons

TPH - Petroleum Hydrocarbons (Gasoline, Diesel and/or Heavy Oil)



Site Plan	
Anthony's Cafe Development Project Anacortes, Washington	
GEOENGINEERS	Figure 2



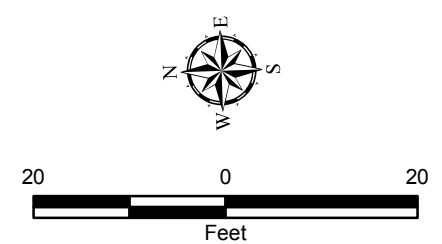
Data Source: Base aerial provided by the Port of Anacortes, March 2013.
Skagit County GIS.


Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. Sampling locations in the vicinity of the areas identified to contain COCs exceeding site cleanup levels are shown on this figure.
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GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Legend

- Verification Soil Sample Location
- ▨ Initial Remedial Excavation Limit
- ▨ Supplemental Remedial Excavation Limit
- ⋯ Anthony's Cafe Redevelopment Area
- EX-2-6* Soil represented by this sample was subsequently excavated and removed from the Site for permitted disposal.



Remedial Excavation and Soil Sample Locations	
Anthony's Cafe Development Project Anacortes, Washington	
GEOENGINEERS 	Figure 3

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ATTACHMENT A

Field Methods

ATTACHMENT A FIELD METHODS

General

A representative from GeoEngineers staff was on-site during excavation activities to evaluate subsurface conditions. Soil with physical evidence of contamination (odors, staining, sheens, etc.) was excavated and removed from the site for permitted disposal. Soils encountered were visually classified in general accordance with American Society for Testing and Materials (ASTM) D 2488-94.

Soil Sampling Procedures

Soil samples were obtained from using a stainless steel trowel directly from the remedial excavation sidewalls and base. Each sample that was submitted for analysis was identified by a unique sample designation that corresponded to its mapped sample location and depth. Sample containers were filled completely to minimize headspace. Soil samples for gasoline and BETX analysis were obtained using EPA method 5035A. Reusable sampling equipment was decontaminated prior to each use with a Liqui-Nox® solution wash and a distilled water rinse. The samples were placed in an iced cooler pending transport to the analytical laboratory. Chain-of-custody procedures were followed in transporting the samples to the laboratory.

Field Screening of Soil Samples

Soil samples obtained from the remedial excavation were screened in the field for evidence of petroleum contamination. Field screening results can be used as a general guideline to delineate areas of potential petroleum-related contamination in soils. In addition, screening results are used to aid in the selection of soil samples for chemical analysis. The screening methods used for this project included: (1) visual examination; (2) water sheen screening; and (3) headspace vapor screening with a photoionization detector (PID).

Visual screening consists of inspecting the soil for stains indicative of petroleum-related contamination and is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil or when hydrocarbon concentrations are high. Water sheen screening and headspace vapor screening are more sensitive methods that have been effective in detecting contamination at concentrations less than regulatory cleanup levels.

Water sheen screening involves placing soil in a pan of distilled water and observing the water surface for signs of sheen. Sheen screening may detect both volatile and nonvolatile petroleum hydrocarbons. Sheen classifications are as follows:

No Sheen (NS)	No visible sheen on water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly.
Moderate Sheen (MS)	Light to heavy sheen, may have some color/iridescence; spread is irregular to flowing; few remaining areas of no sheen on water surface.
Heavy Sheen (HS)	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.



Headspace vapor screening involves placing a soil sample in a plastic sample bag. Air is captured in the bag, and the bag is shaken to expose the soil to the air trapped in the bag. The probe of a PID is inserted into the bag, and the instrument measures the concentration of organic vapor in the air removed from the sample headspace. The PID measures concentrations in parts per million (ppm) and is calibrated to isobutylene. The PID is designed to quantify organic vapor concentrations in the range between 1 and 2,000 ppm.

Field screening results are site-specific and vary with soil type, soil moisture content, temperature and type of contaminant. The presence or absence of a sheen does not necessarily indicate the presence or absence of petroleum hydrocarbons in the sample.



ATTACHMENT B
Chemical Analytical Program

ATTACHMENT B

CHEMICAL ANALYTICAL PROGRAM

Samples

Chain-of-custody procedures were followed during the transport of the field samples to the Ecology accredited analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results and laboratory quality control (QC) records are included in this attachment. The analytical results are summarized in the text and tables of this report.

Analytical Data Review

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report. Any data quality exceptions documented by the laboratory were reviewed by GeoEngineers and are addressed in the data quality exception section of this attachment.

Data Quality Exception Summary

No significant quality control exceptions were noted by the testing laboratory. It is our opinion that the analytical data are of acceptable quality for their intended use in this report.





14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 21, 2015

Robert Trahan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-022-04
Laboratory Reference No. 1507-136

Dear Robert:

Enclosed are the analytical results and associated quality control data for samples submitted on July 16, 2015.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal line extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: July 21, 2015
Samples Submitted: July 16, 2015
Laboratory Reference: 1507-136
Project: 5147-022-04

Case Narrative

Samples were collected on July 16, 2015 and received by the laboratory on July 16, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH Gx/BTEX Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: July 21, 2015
Samples Submitted: July 16, 2015
Laboratory Reference: 1507-136
Project: 5147-022-04

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
PCS-1-6.0	07-136-01	Soil	7-16-15	7-16-15	
EX-1-7.5	07-136-02	Soil	7-16-15	7-16-15	
EX-2-6.0	07-136-03	Soil	7-16-15	7-16-15	
EX-3-6.0	07-136-04	Soil	7-16-15	7-16-15	
EX-4-6.0	07-136-05	Soil	7-16-15	7-16-15	

Date of Report: July 21, 2015
 Samples Submitted: July 16, 2015
 Laboratory Reference: 1507-136
 Project: 5147-022-04

NWTPH-Gx/BTEX

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	PCS-1-6.0					
Laboratory ID:	07-136-01					
Benzene	0.96	0.030	EPA 8021B	7-17-15	7-17-15	
Toluene	ND	0.15	EPA 8021B	7-17-15	7-17-15	
Ethyl Benzene	9.8	0.15	EPA 8021B	7-17-15	7-17-15	
m,p-Xylene	12	0.15	EPA 8021B	7-17-15	7-17-15	
o-Xylene	0.41	0.15	EPA 8021B	7-17-15	7-17-15	
Gasoline	2100	150	NWTPH-Gx	7-17-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	109	68-123				
Client ID:	EX-1-7.5					
Laboratory ID:	07-136-02					
Benzene	ND	0.024	EPA 8021B	7-17-15	7-17-15	
Toluene	ND	0.12	EPA 8021B	7-17-15	7-17-15	
Ethyl Benzene	ND	0.12	EPA 8021B	7-17-15	7-17-15	
m,p-Xylene	ND	0.12	EPA 8021B	7-17-15	7-17-15	
o-Xylene	ND	0.12	EPA 8021B	7-17-15	7-17-15	
Gasoline	ND	12	NWTPH-Gx	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	113	68-123				
Client ID:	EX-2-6.0					
Laboratory ID:	07-136-03					
Benzene	0.083	0.020	EPA 8021B	7-17-15	7-20-15	
Toluene	ND	0.074	EPA 8021B	7-17-15	7-20-15	
Ethyl Benzene	0.14	0.074	EPA 8021B	7-17-15	7-20-15	
m,p-Xylene	0.58	0.074	EPA 8021B	7-17-15	7-20-15	
o-Xylene	ND	0.074	EPA 8021B	7-17-15	7-20-15	
Gasoline	77	7.4	NWTPH-Gx	7-17-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	102	68-123				

Date of Report: July 21, 2015
 Samples Submitted: July 16, 2015
 Laboratory Reference: 1507-136
 Project: 5147-022-04

NWTPH-Gx/BTEX

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		EX-3-6.0				
Laboratory ID:		07-136-04				
Benzene	0.20	0.020	EPA 8021B	7-17-15	7-17-15	
Toluene	ND	0.088	EPA 8021B	7-17-15	7-17-15	
Ethyl Benzene	ND	0.088	EPA 8021B	7-17-15	7-17-15	
m,p-Xylene	ND	0.088	EPA 8021B	7-17-15	7-17-15	
o-Xylene	ND	0.088	EPA 8021B	7-17-15	7-17-15	
Gasoline	ND	8.8	NWTPH-Gx	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	112	68-123				
Client ID:		EX-4-6.0				
Laboratory ID:		07-136-05				
Benzene	ND	0.020	EPA 8021B	7-17-15	7-17-15	
Toluene	ND	0.058	EPA 8021B	7-17-15	7-17-15	
Ethyl Benzene	ND	0.058	EPA 8021B	7-17-15	7-17-15	
m,p-Xylene	ND	0.058	EPA 8021B	7-17-15	7-17-15	
o-Xylene	ND	0.058	EPA 8021B	7-17-15	7-17-15	
Gasoline	ND	5.8	NWTPH-Gx	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	104	68-123				

Date of Report: July 21, 2015
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 Laboratory Reference: 1507-136
 Project: 5147-022-04

NWTPH-Dx

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	PCS-1-6.0					
Laboratory ID:	07-136-01					
Diesel Range Organics	2600	170	NWTPH-Dx	7-17-15	7-20-15	M
Lube Oil	3600	340	NWTPH-Dx	7-17-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	87	50-150				
Client ID:	EX-1-7.5					
Laboratory ID:	07-136-02					
Diesel Range Organics	ND	45	NWTPH-Dx	7-17-15	7-17-15	
Lube Oil	170	89	NWTPH-Dx	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	78	50-150				
Client ID:	EX-2-6.0					
Laboratory ID:	07-136-03					
Diesel Range Organics	ND	50	NWTPH-Dx	7-17-15	7-20-15	U1, M1
Lube Oil	100	70	NWTPH-Dx	7-17-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				
Client ID:	EX-3-6.0					
Laboratory ID:	07-136-04					
Diesel Range Organics	ND	36	NWTPH-Dx	7-17-15	7-17-15	
Lube Oil Range Organics	ND	72	NWTPH-Dx	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				
Client ID:	EX-4-6.0					
Laboratory ID:	07-136-05					
Diesel Range Organics	ND	27	NWTPH-Dx	7-17-15	7-17-15	
Lube Oil Range Organics	ND	54	NWTPH-Dx	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Date of Report: July 21, 2015
 Samples Submitted: July 16, 2015
 Laboratory Reference: 1507-136
 Project: 5147-022-04

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	PCS-1-6.0					
Laboratory ID:	07-136-01					
Naphthalene	6.6	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
2-Methylnaphthalene	11	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
1-Methylnaphthalene	4.8	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Acenaphthylene	ND	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Acenaphthene	ND	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Fluorene	ND	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Phenanthrene	0.23	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Anthracene	ND	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Fluoranthene	ND	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Pyrene	ND	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Benzo[a]anthracene	ND	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Chrysene	ND	0.18	EPA 8270D/SIM	7-17-15	7-21-15	
Benzo[b]fluoranthene	0.018	0.0090	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo(j,k)fluoranthene	ND	0.0090	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[a]pyrene	0.011	0.0090	EPA 8270D/SIM	7-17-15	7-20-15	
Indeno(1,2,3-c,d)pyrene	0.0095	0.0090	EPA 8270D/SIM	7-17-15	7-20-15	
Dibenz[a,h]anthracene	ND	0.0090	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[g,h,i]perylene	0.018	0.0090	EPA 8270D/SIM	7-17-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>70</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>76</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>86</i>	<i>31 - 116</i>				

Date of Report: July 21, 2015
 Samples Submitted: July 16, 2015
 Laboratory Reference: 1507-136
 Project: 5147-022-04

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	EX-1-7.5					
Laboratory ID:	07-136-02					
Naphthalene	0.040	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
2-Methylnaphthalene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
1-Methylnaphthalene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Acenaphthylene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Acenaphthene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Fluorene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Phenanthrene	0.015	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Anthracene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Fluoranthene	0.013	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Pyrene	0.014	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[a]anthracene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Chrysene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[b]fluoranthene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo(j,k)fluoranthene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[a]pyrene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Indeno(1,2,3-c,d)pyrene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Dibenz[a,h]anthracene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[g,h,i]perylene	ND	0.012	EPA 8270D/SIM	7-17-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>83</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>31 - 116</i>				

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 Project: 5147-022-04

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	EX-2-6.0					
Laboratory ID:	07-136-03					
Naphthalene	1.7	0.019	EPA 8270D/SIM	7-17-15	7-21-15	
2-Methylnaphthalene	1.1	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
1-Methylnaphthalene	0.64	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Acenaphthylene	0.011	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Acenaphthene	0.010	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Fluorene	ND	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Phenanthrene	0.052	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Anthracene	0.011	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Fluoranthene	0.079	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Pyrene	0.080	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[a]anthracene	0.036	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Chrysene	0.041	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[b]fluoranthene	0.050	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo(j,k)fluoranthene	0.015	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[a]pyrene	0.034	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Indeno(1,2,3-c,d)pyrene	0.028	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
Benzo[g,h,i]perylene	0.025	0.0093	EPA 8270D/SIM	7-17-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>57</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>62</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>31 - 116</i>				

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 Samples Submitted: July 16, 2015
 Laboratory Reference: 1507-136
 Project: 5147-022-04

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	EX-3-6.0					
Laboratory ID:	07-136-04					
Naphthalene	0.083	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
2-Methylnaphthalene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
1-Methylnaphthalene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Acenaphthylene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Acenaphthene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Fluorene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Phenanthrene	0.026	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Anthracene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Fluoranthene	0.022	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Pyrene	0.024	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[a]anthracene	0.010	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Chrysene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[b]fluoranthene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo(j,k)fluoranthene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[a]pyrene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Dibenz[a,h]anthracene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[g,h,i]perylene	ND	0.0096	EPA 8270D/SIM	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>61</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>59</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>68</i>	<i>31 - 116</i>				

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 Project: 5147-022-04

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	EX-4-6.0					
Laboratory ID:	07-136-05					
Naphthalene	0.042	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
2-Methylnaphthalene	0.072	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
1-Methylnaphthalene	0.032	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Acenaphthylene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Acenaphthene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Fluorene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Phenanthrene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Anthracene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Fluoranthene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Pyrene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[a]anthracene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Chrysene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[b]fluoranthene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo(j,k)fluoranthene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[a]pyrene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Dibenz[a,h]anthracene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[g,h,i]perylene	ND	0.0072	EPA 8270D/SIM	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>91</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>108</i>	<i>31 - 116</i>				

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 Project: 5147-022-04

**NWTPH-Gx/BTEX
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0717S2					
Benzene	ND	0.020	EPA 8021B	7-17-15	7-17-15	
Toluene	ND	0.050	EPA 8021B	7-17-15	7-17-15	
Ethyl Benzene	ND	0.050	EPA 8021B	7-17-15	7-17-15	
m,p-Xylene	ND	0.050	EPA 8021B	7-17-15	7-17-15	
o-Xylene	ND	0.050	EPA 8021B	7-17-15	7-17-15	
Gasoline	ND	5.0	NWTPH-Gx	7-17-15	7-17-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	99	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-140-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
Surrogate:								
Fluorobenzene				102	102	68-123		

SPIKE BLANKS

Laboratory ID:	SB0717S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	1.10	1.01	1.00	1.00	110	101	75-117	9	13
Toluene	1.08	1.03	1.00	1.00	108	103	78-118	5	12
Ethyl Benzene	1.07	1.00	1.00	1.00	107	100	78-118	7	12
m,p-Xylene	1.08	1.03	1.00	1.00	108	103	78-121	5	13
o-Xylene	1.07	1.01	1.00	1.00	107	101	77-119	6	13
Surrogate:									
Fluorobenzene					102	94	68-123		

Date of Report: July 21, 2015
 Samples Submitted: July 16, 2015
 Laboratory Reference: 1507-136
 Project: 5147-022-04

**NWTPH-Dx
QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0717S1					
Diesel Range Organics	ND	25	NWTPH-Dx	7-17-15	7-17-15	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-17-15	7-17-15	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	91	50-150				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	07-136-04									
	ORIG	DUP								
Diesel Range	ND	ND	NA	NA		NA	NA	NA	NA	
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						79	71	50-150		

Date of Report: July 21, 2015
 Samples Submitted: July 16, 2015
 Laboratory Reference: 1507-136
 Project: 5147-022-04

**PAHs EPA 8270D/SIM
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0717S2						
Naphthalene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	7-17-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	99	32 - 114				
Pyrene-d10	93	33 - 121				
Terphenyl-d14	102	31 - 116				

Date of Report: July 21, 2015
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**PAHs EPA 8270D/SIM
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0717S2									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.0768	0.0703	0.0833	0.0833	92	84	63 - 113	9	19	
Acenaphthylene	0.0971	0.0949	0.0833	0.0833	117	114	61 - 125	2	16	
Acenaphthene	0.0797	0.0776	0.0833	0.0833	96	93	66 - 113	3	16	
Fluorene	0.0816	0.0801	0.0833	0.0833	98	96	60 - 117	2	16	
Phenanthrene	0.0820	0.0846	0.0833	0.0833	98	102	63 - 116	3	12	
Anthracene	0.0927	0.0952	0.0833	0.0833	111	114	66 - 146	3	19	
Fluoranthene	0.0811	0.0845	0.0833	0.0833	97	101	60 - 125	4	13	
Pyrene	0.0788	0.0827	0.0833	0.0833	95	99	66 - 126	5	15	
Benzo[a]anthracene	0.0867	0.0932	0.0833	0.0833	104	112	60 - 128	7	15	
Chrysene	0.0828	0.0841	0.0833	0.0833	99	101	60 - 117	2	13	
Benzo[b]fluoranthene	0.0756	0.0838	0.0833	0.0833	91	101	60 - 131	10	16	
Benzo(j,k)fluoranthene	0.0806	0.0806	0.0833	0.0833	97	97	57 - 126	0	20	
Benzo[a]pyrene	0.0809	0.0845	0.0833	0.0833	97	101	62 - 136	4	16	
Indeno(1,2,3-c,d)pyrene	0.0840	0.0871	0.0833	0.0833	101	105	60 - 127	4	19	
Dibenz[a,h]anthracene	0.0824	0.0860	0.0833	0.0833	99	103	62 - 133	4	22	
Benzo[g,h,i]perylene	0.0828	0.0861	0.0833	0.0833	99	103	63 - 129	4	22	
Surrogate:										
2-Fluorobiphenyl					100	92	32 - 114			
Pyrene-d10					99	100	33 - 121			
Terphenyl-d14					99	105	31 - 116			

Date of Report: July 21, 2015
Samples Submitted: July 16, 2015
Laboratory Reference: 1507-136
Project: 5147-022-04

% MOISTURE

Date Analyzed: 7-17-15

Client ID	Lab ID	% Moisture
PCS-1-6.0	07-136-01	26
EX-1-7.5	07-136-02	44
EX-2-6.0	07-136-03	28
EX-3-6.0	07-136-04	31
EX-4-6.0	07-136-05	7



Data Qualifiers and Abbreviations


- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference



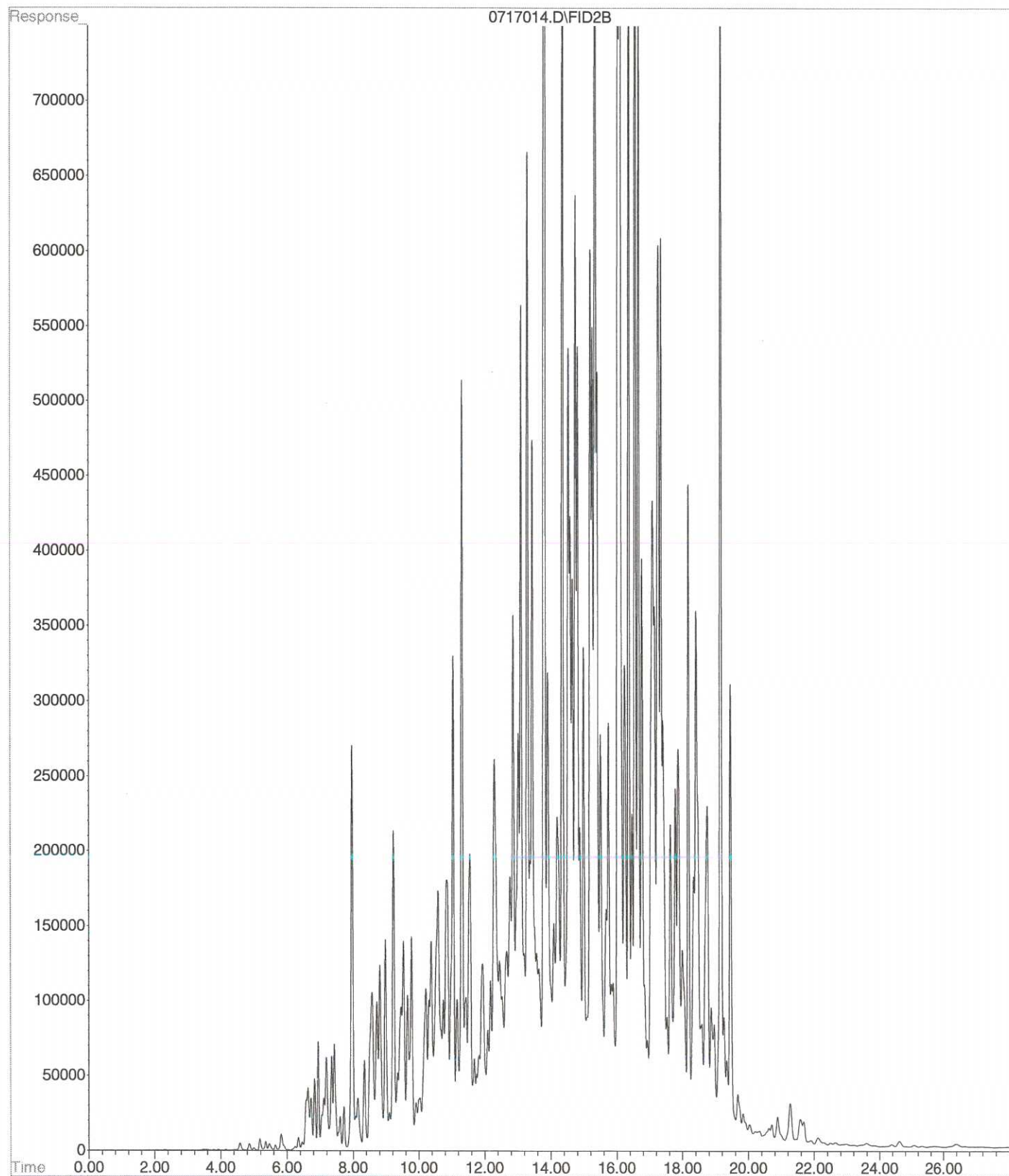
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Chain of Custody

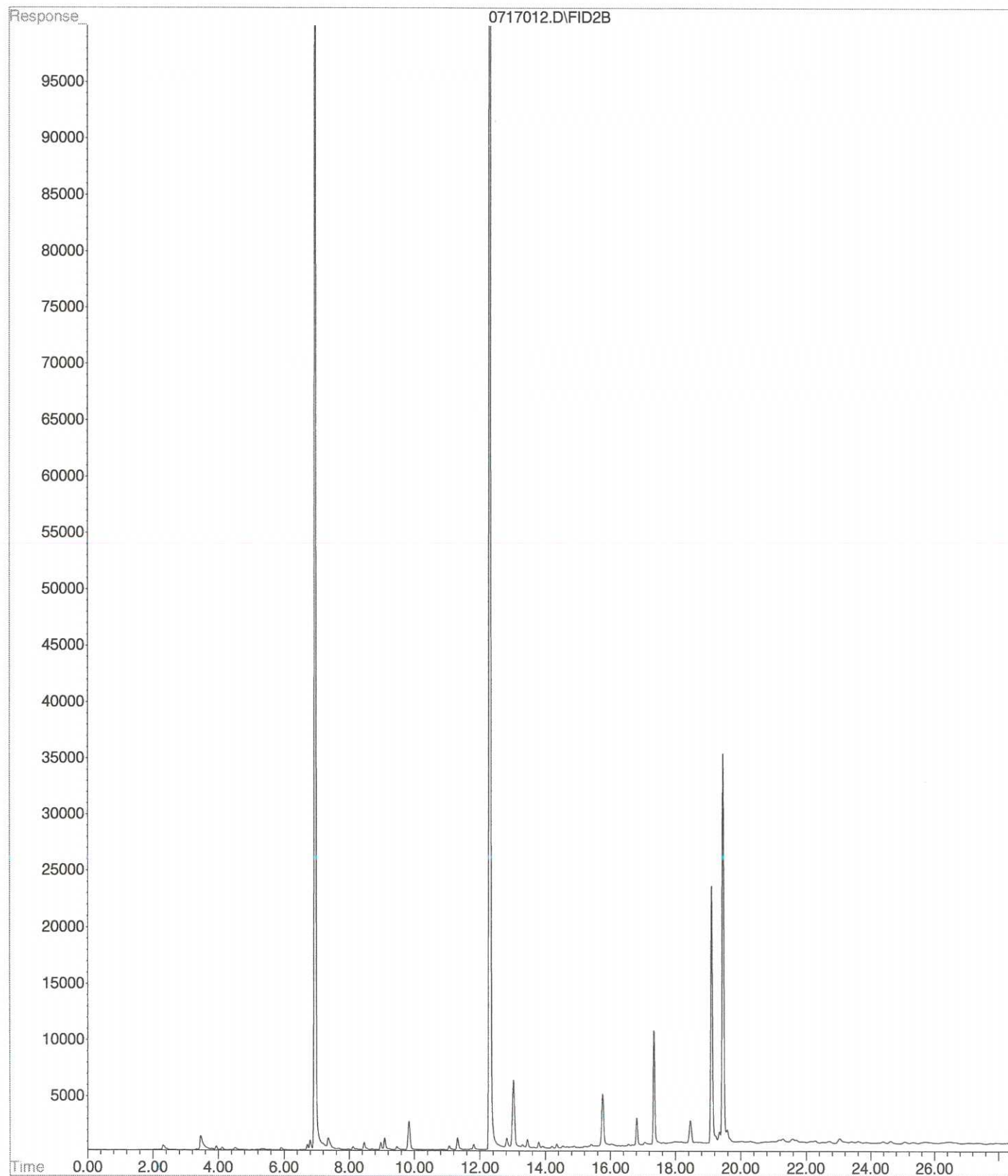
Page 1 of 1

Analytical Laboratory Testing Services 1464S NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com																							
Company: <u>GeoEngineers</u>																							
Project Number: <u>SL47-022-01</u>																							
Project Name: <u>Port Anthony's</u>																							
Project Manager: <u>Robert Tahan</u>																							
Sampled by: <u>Robert Tahan</u>																							
<div>Turnaround Request (in working days) (Check One) <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input checked="" type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> Standard (7 Days) (TPH analysis 5 Days) <input type="checkbox"/> _____ (other)</div>																							
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers																		
1	PLS-1-6.0	7-16-15	9:50	S	6	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture	
2	EX-1-7.5	7-16-15	10:45	S	1	X	X	X	X				X										
3	EX-2-6.0	7-16-15	10:50	S	1	X	X	X	X				X										
4	EX-3-6.0	7-16-15	10:55	S	1	X	X	X	X				X										
5	EX-4-6.0	7-16-15	11:00	S	1	X	X	X	X				X										
Signature		Company		Date	Time	Comments/Special Instructions																	
		GeoEngineers		7-16-15	14:25																		
Relinquished				7-16-15	14:25																		
Received																							
Relinquished																							
Received																							
Relinquished																							
Received																							
Relinquished																							
Reviewed/Date		Reviewed/Date		Chromatograms with final report <input checked="" type="checkbox"/>																			

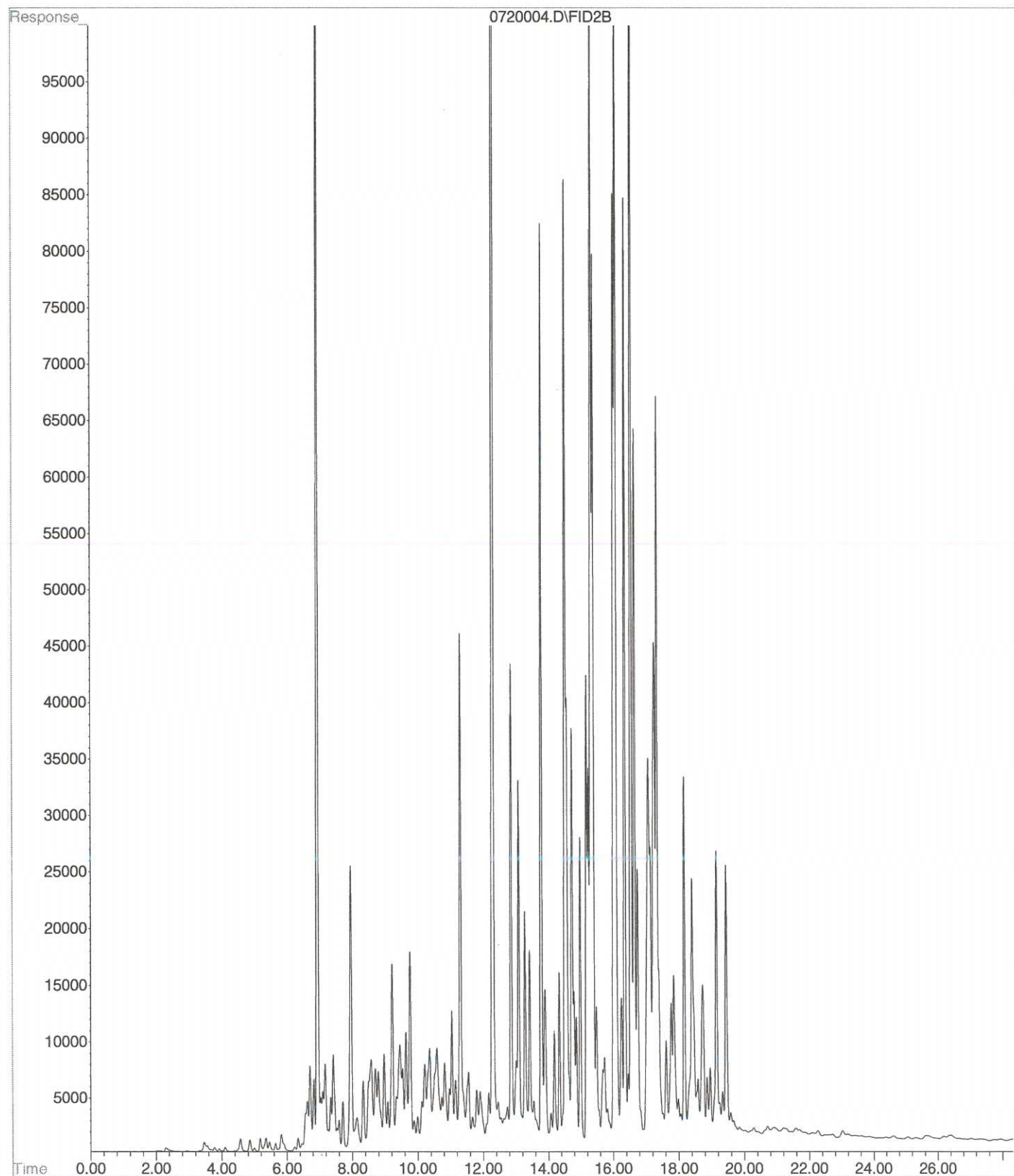
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Operator :
Acquired : 17 Jul 2015 21:03 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-136-01s 1:100
Misc Info : V2-37-21
Vial Number: 14



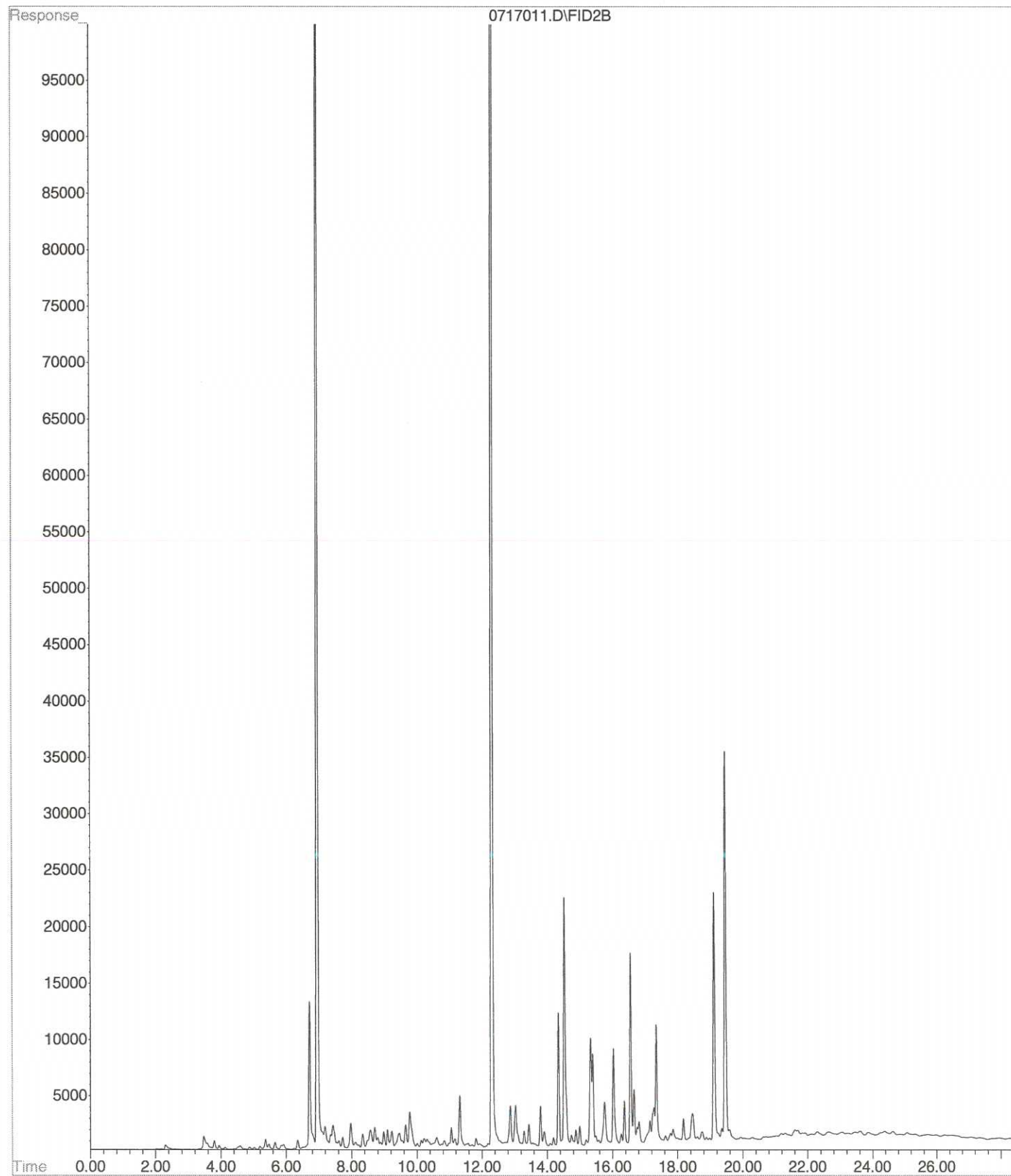
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Acquired : 17 Jul 2015 19:55 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-136-02s
Misc Info : V2-37-21
Vial Number: 12



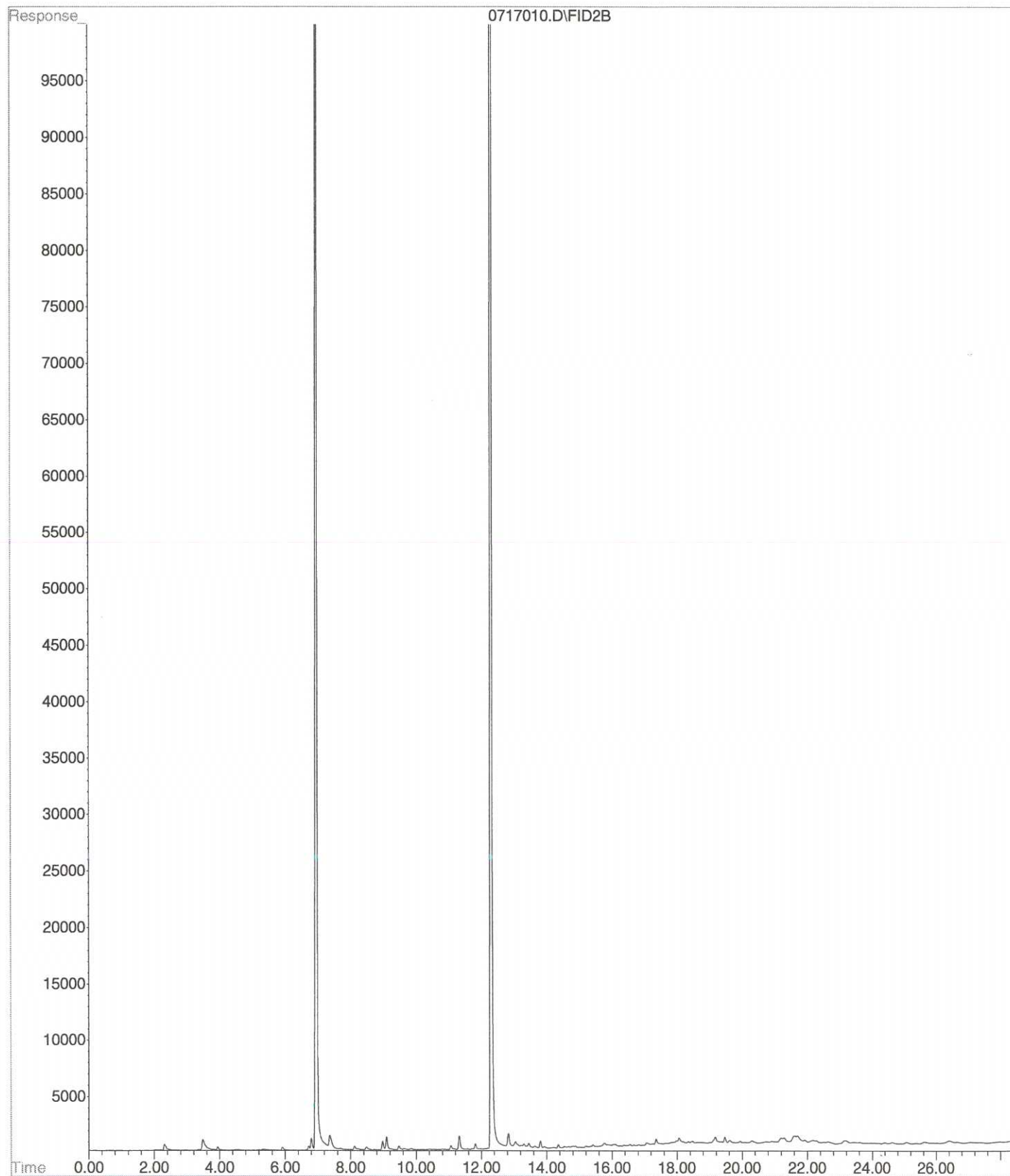
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Operator :
Acquired : 20 Jul 2015 12:38 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-136-03s RR
Misc Info : V2-37-21
Vial Number: 4



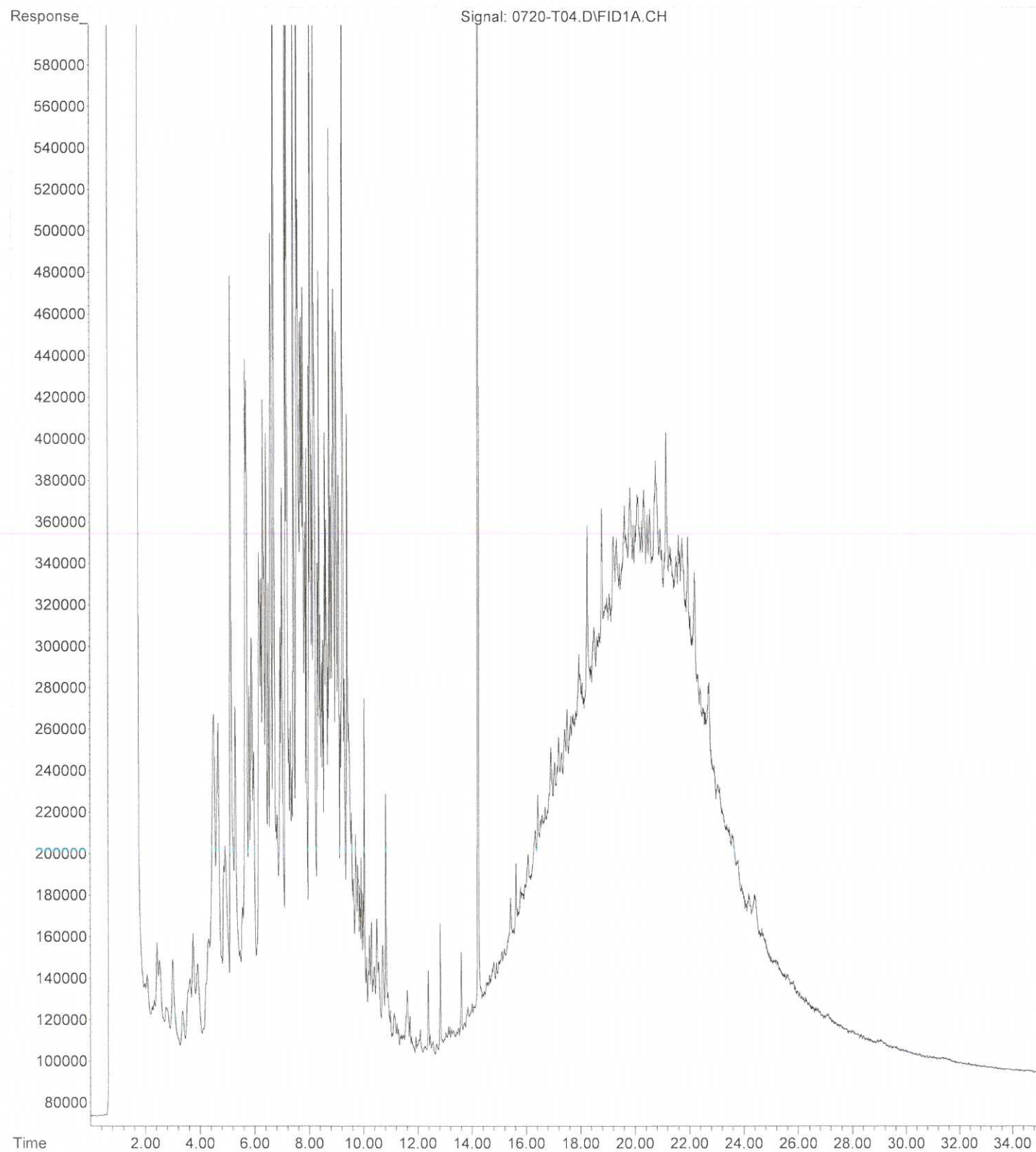
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Operator :
Acquired : 17 Jul 2015 19:21 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-136-04s
Misc Info : V2-37-21
Vial Number: 11



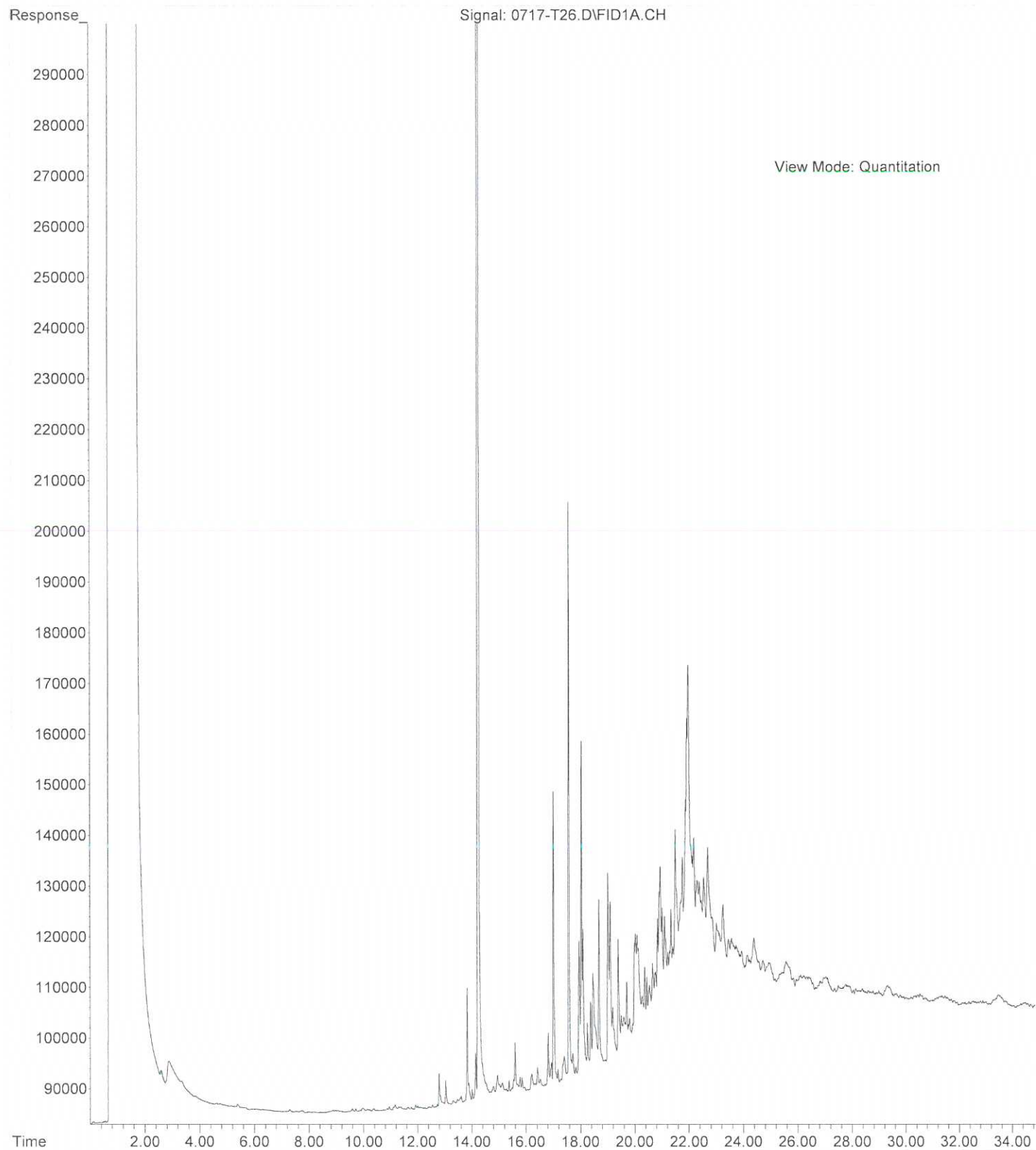
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Operator :
Acquired : 17 Jul 2015 18:47 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-136-05s
Misc Info : V2-37-21
Vial Number: 10



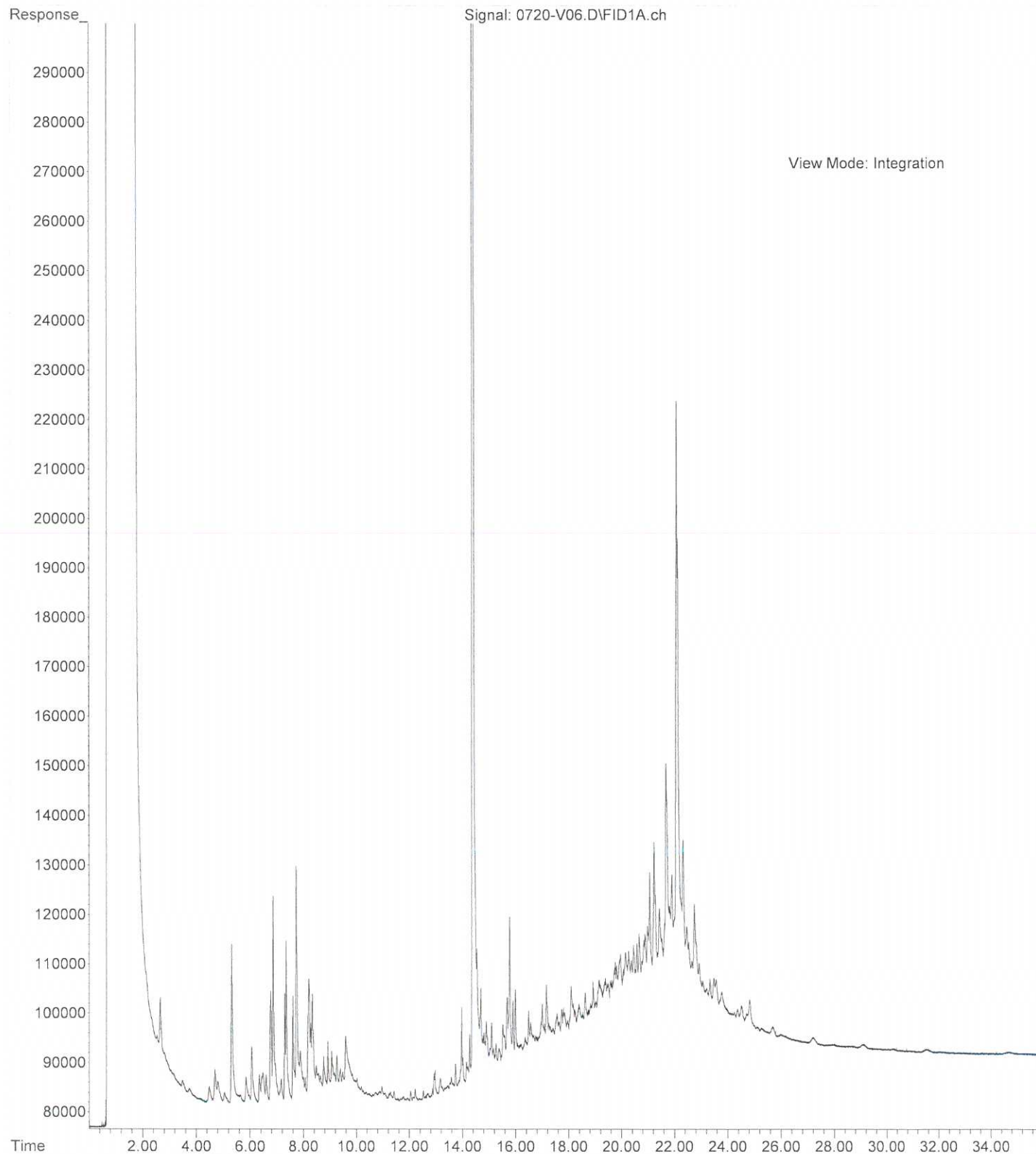
File :X:\DIESELS\TERI\DATA\T150720\0720-T04.D
Operator : ZT
Acquired : 20 Jul 2015 14:49 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-136-01 5X
Misc Info :
Vial Number: 4



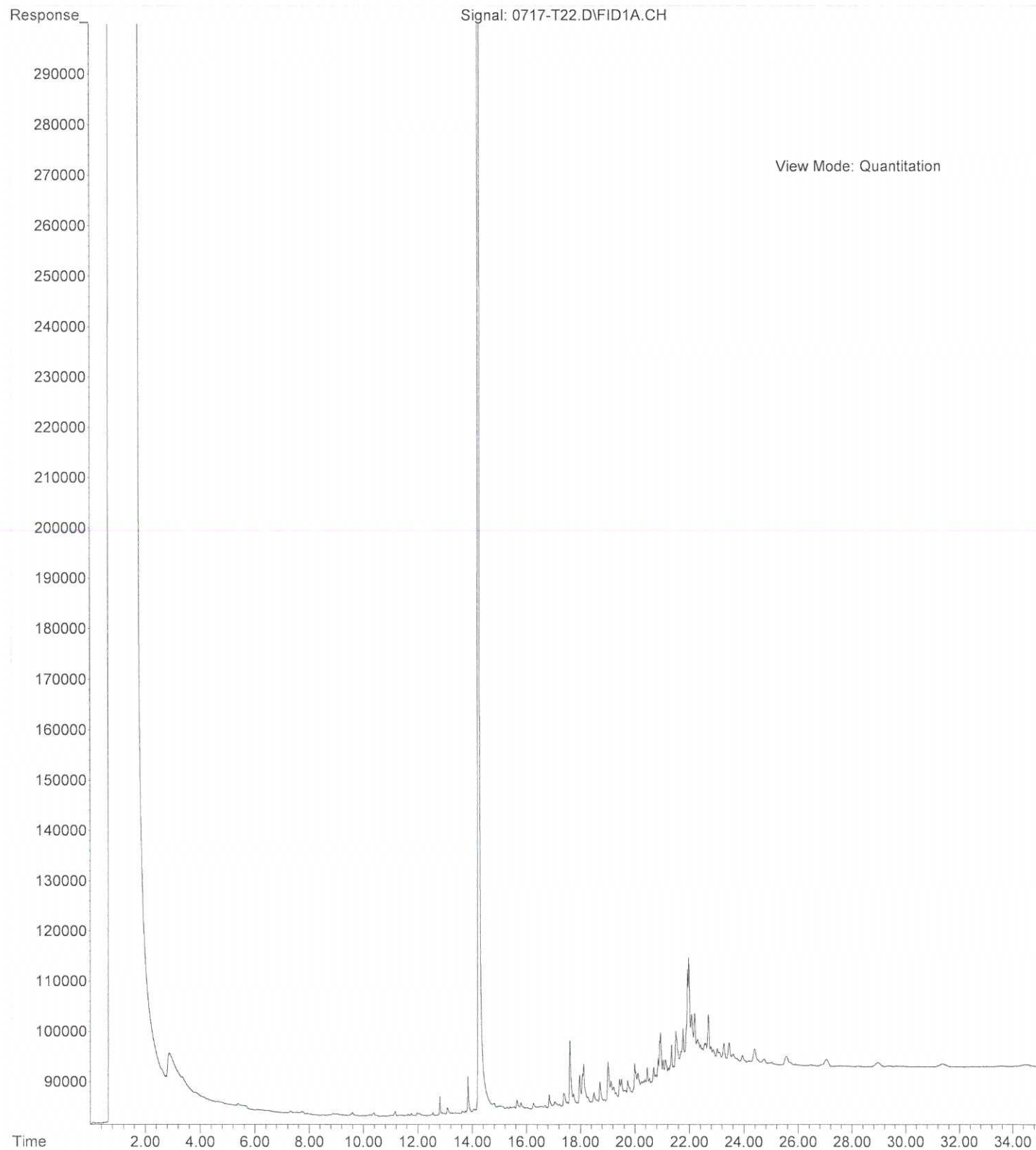
File :X:\DIESELS\TERI\DATA\T150717\0717-T26.D
Operator : ZT
Acquired : 18 Jul 2015 7:02 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-136-02
Misc Info :
Vial Number: 26



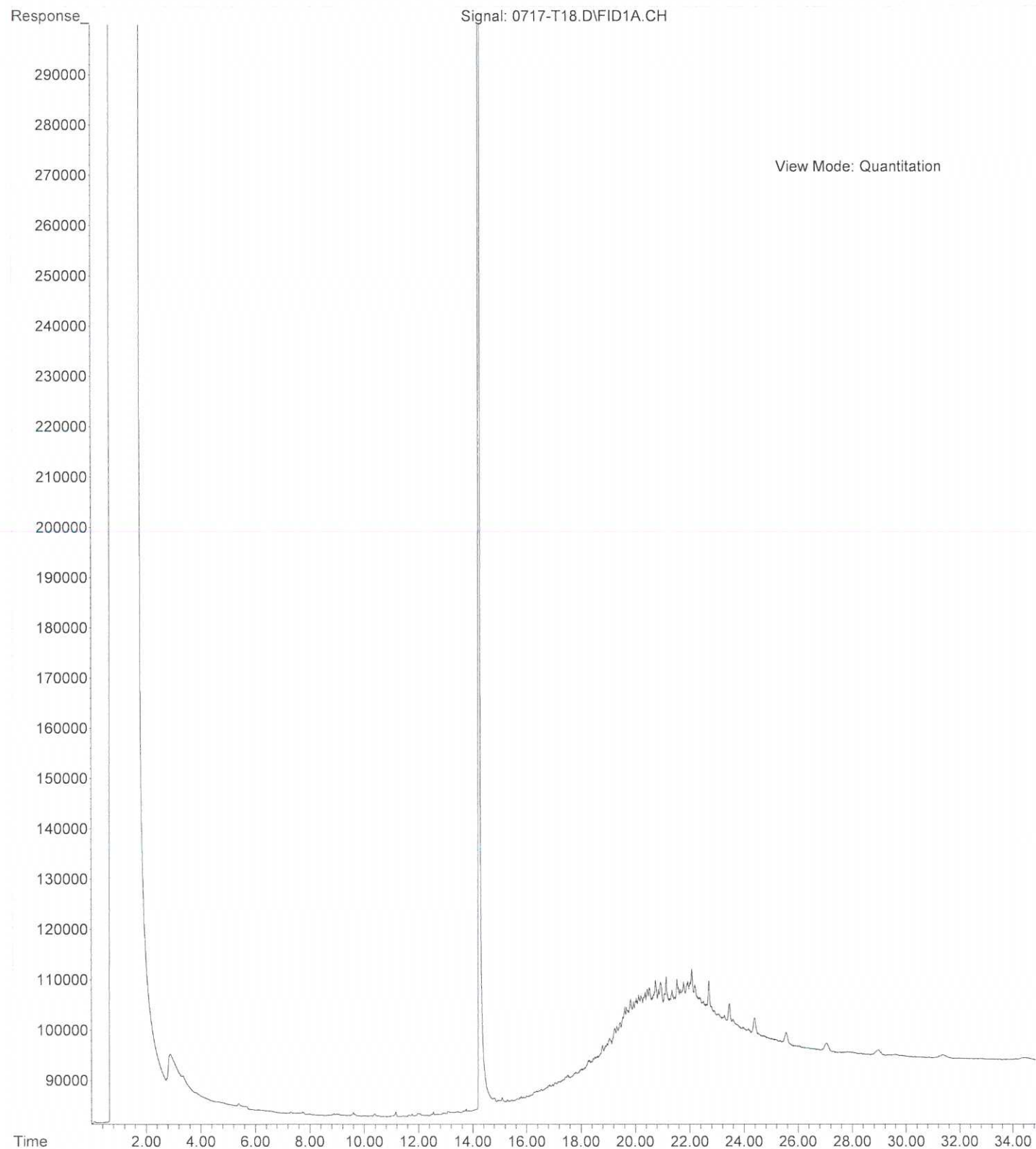
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Operator :
Acquired : 20 Jul 2015 14:48 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-136-03 RC
Misc Info :
Vial Number: 6



File :X:\DIESELS\TERI\DATA\T150717\0717-T22.D
Operator : ZT
Acquired : 18 Jul 2015 4:10 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-136-04
Misc Info :
Vial Number: 22



File :X:\DIESELS\TERI\DATA\T150717\0717-T18.D
Operator : ZT
Acquired : 18 Jul 2015 1:18 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-136-05
Misc Info :
Vial Number: 18





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July 22, 2015

Robert Trahan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-022-04
Laboratory Reference No. 1507-162

Dear Robert:

Enclosed are the analytical results and associated quality control data for samples submitted on July 21, 2015.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal line extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: July 22, 2015
Samples Submitted: July 21, 2015
Laboratory Reference: 1507-162
Project: 5147-022-04

Case Narrative

Samples were collected on July 21, 2015 and received by the laboratory on July 21, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH Gx Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: July 22, 2015
Samples Submitted: July 21, 2015
Laboratory Reference: 1507-162
Project: 5147-022-04

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-5-6.0	07-162-01	Soil	7-21-15	7-21-15	

Date of Report: July 22, 2015
 Samples Submitted: July 21, 2015
 Laboratory Reference: 1507-162
 Project: 5147-022-04

NWTPH-Gx

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	EX-5-6.0					
Laboratory ID:	07-162-01					
Gasoline	ND	5.8	NWTPH-Gx	7-21-15	7-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	68-123				

Date of Report: July 22, 2015
 Samples Submitted: July 21, 2015
 Laboratory Reference: 1507-162
 Project: 5147-022-04

**NWTPH-Gx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0721S1					
Gasoline	ND	5.0	NWTPH-Gx	7-21-15	7-21-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	99	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-162-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
Surrogate:								
Fluorobenzene				98	99	68-123		

Date of Report: July 22, 2015
Samples Submitted: July 21, 2015
Laboratory Reference: 1507-162
Project: 5147-022-04

% MOISTURE

Date Analyzed: 7-21-15

Client ID	Lab ID	% Moisture
EX-5-6.0	07-162-01	17



Data Qualifiers and Abbreviations

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- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
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- I - Compound recovery is outside of the control limits.
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- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
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- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
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- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference



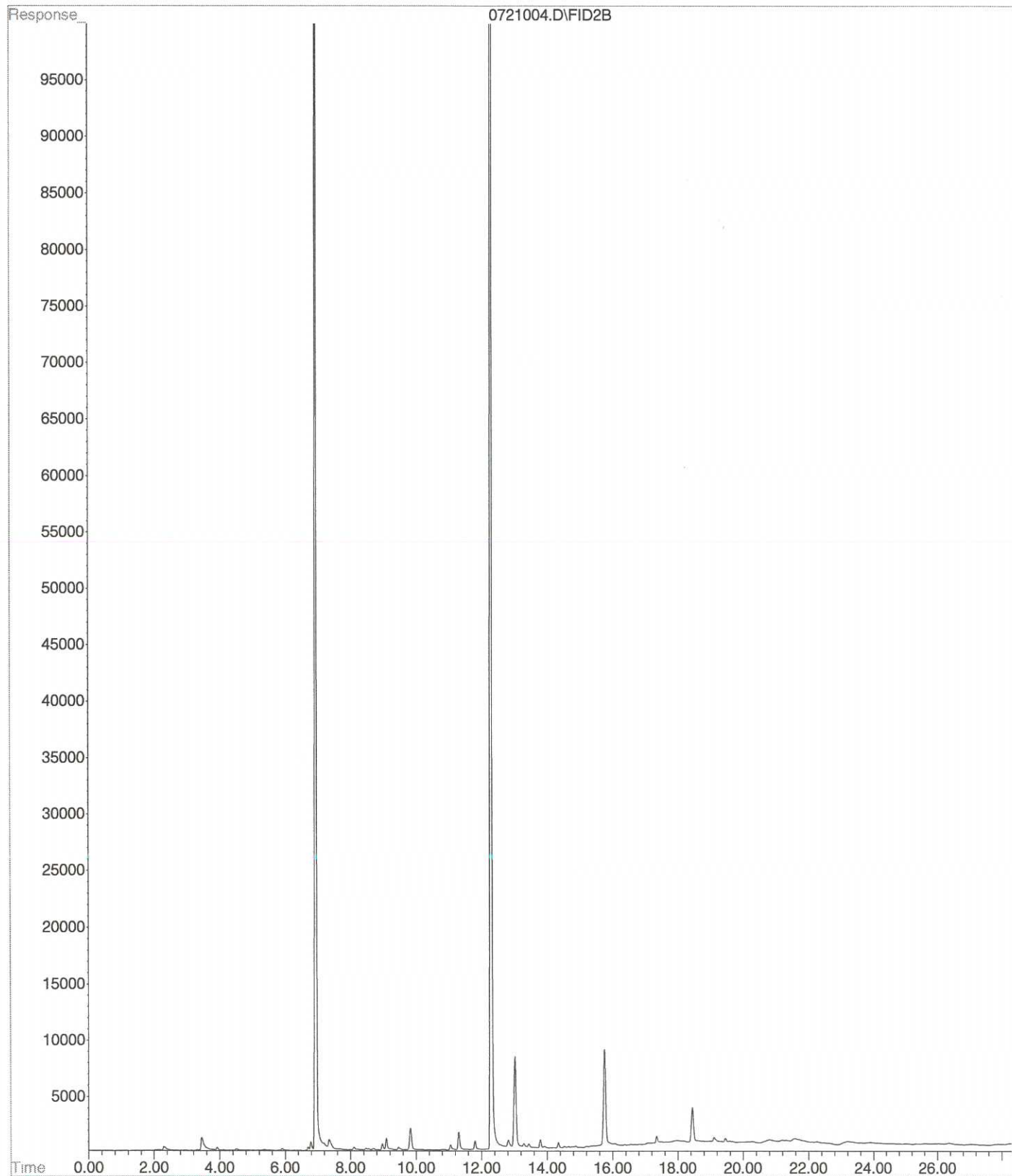
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Page 1 of 1

[illegible]

File : X:\BTEX\DARYL\DATA\D150721\0721004.D
Operator :
Acquired : 21 Jul 2015 15:38 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-162-01s
Misc Info : V2-37-21
Vial Number: 4



ATTACHMENT C
Soil Disposal Receipts



Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Original
Ticket# 108246
Ph: 206 763 5025

Customer Name PORT_OF_ANACORTES Port of Ana Carrier R TRANSPORT R TRANSPORT
Ticket Date 08/18/2015 Vehicle# R58 Volume
Payment Type Credit Account Container
Manual Ticket# Driver JUSTIN BONN
Route AK Check#
Hauling Ticket# Billing# 0000403
Destination Grid
PO# 110307WA

	Time	Scale	Operator	Inbound	Gross	
In	08/18/2015 10:00:31	SCALE 1	lmercer		Tare	84480 lb*
Out	08/18/2015 10:00:31		lmercer		Net	41400 lb*
			* Manual Weight		Tons	43080 lb
						21.54

Comments RT - LM (REPLACES VOIDED TICKET # 108026)

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 ENVCLEANUP RGCPCS-Tons-E	100	21.54	Tons				SKAGIT
2 FEA-FUEL, ENV, ADMIN	100	21.54	Tons				
3 GONDOLA T/10T MIN-GONDOL	100	21.54	Tons				
4 TRANS FEE TRUCK PUP.-TRU	100	21.54	Tons				

Total Tax
Total Ticket

203WM Driver's Signature